PG Programme
Credit Semester System
(MGU-CSS-PG)
Scheme & Syllabi

For
MSC. HOME SCIENCE
(FAMILY AND COMMUNITY SCIENCE)
5 BRANCHES (XA TO XE)
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<table>
<thead>
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<th>Page Number</th>
<th>Description</th>
</tr>
</thead>
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</tr>
</tbody>
</table>

(BASED ON MAHATMA GANDHI UNIVERSITY REGULATIONS FOR THE
CONDUCT OF POST GRADUATE PROGRAMMES IN AFFILIATED COLLEGES)

## COURSES

1. **BRANCHXA** MSc. CHILD DEVELOPMENT AND BEHAVIOUR SCIENCE 16
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3. **BRANCHXC** MSc. FOOD SCIENCE AND NUTRITION 151
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PREFACE

The subject of Home Science (Family and Community Science) is a perfect blend of science and arts. It is a unique course that focuses upon every phase of human life, from the prenatal to geriatric. It touches every segment of the population — men and women, the young and the old, the enriched and the impoverished, the gifted and the disabled. It is also a course that encompasses every aspect of human life - health and nutrition, diet and diseases, growth and development, housing and interiors. Creativity and aesthetics, budgeting and finance, resource management and conservation, ecology and sustainable development, consumer economics and human rights, fashion merchandising and textile designing, communication technology and extension education, rural and urban development as well as national and global concerns come within the purview of this course.

Thus the scope of Home Science is not limited to the activities within the home, but has a wider perspective that forms the basis of challenging professions in varied fields.

As per Order No.5386 /L/Acad./PGCSS(R)/2011 dated 30 September 2011 of the Mahatma Gandhi University, the members of the Board of Studies for PG in HOME SCIENCE was entrusted with the task of restructuring and updating the syllabi for different PG courses in Home Science.

The members of the Board of Studies

Dr. Miriam Mani, CMS College, Kottayam Chairperson

Dr. Sarada Ramadas, Avinashilingam Deemed University, Coimbatore.

Dr. Shirly Rachel Kurian, St. Teresa's College, Ernakulam

Dr. Thara Sebastian, St. Teresa's College, Ernakulam

Dr. Ancy Thomas, Morning Star College, Angamaly.

Sr. Philominamma John, Assumption College, Changanacherry

Mrs. Manjuline Jacob, Assumption College, Changanacherry

Smt. Susan Cherian, St. Teresa's College, Ernakulam

Dr. Anu Joseph, St. Teresa's College, Ernakulam

As instructed by the university a three day workshop was convened including the members of Board of Studies, teachers handling the PG courses and the subject experts
from Universities outside Kerala. The members worked in groups based on their field of specialization. The participants of workshop were:

1. Dr. Shirly Rachel Kurian
2. Dr. Ancy Thomas
3. Dr. Thara Sebastian.
4. Sr. Philominamma John
5. Smt. Sheelamma Jacob
6. Smt. Bettyrani Isaac
7. Smt. Teresa Kuncheria
8. Smt. Susan Cherian
9. Dr. Anu Joseph
10. Smt. Rose Mary Francis
12. Dr. Anooja Thomas
13. Dr. Shilpa Jose
14. Smt. Rashmi Poojara
15. Dr. Leena Leon
16. Smt. Megha Thampy
17. Dr. Nisha Vikraman
18. Dr. Lismitha Godwin
19. Smt. Nimmy Jacob
20. Dr. Miriam Mani

The members carefully examined the syllabi recommended by the UGC and also the syllabi of various National and Inter National Universities during the workshop and formulated an outline of the curriculum. The views, ideas and suggestions of experts from the related fields and industries, as well as the feed back from the PG and the UG students were also given due consideration during the curriculum designing and restructuring processes. The Core and Elective courses were finally framed for the different specialized branches of Home Science, such as the following:
1. BRANCHXA  MSc. Child Development and Behaviour Science
2. BRANCHXB  MSc. Resource Management and Interior Designing
3. BRANCHXC  MSc. Food Science and Nutrition
4. BRANCHXD  MSc. Community and Family Science
5. BRANCHXE  MSc. Dietetics and Food Service Management.

I wish to extend my sincere gratitude to the Hon.Vice Chancellor of the Mahatma Gandhi University, Dr.Rajan Gurukkal and the Pro-Vice Chancellor Dr.Rajan Vargheese for entrusting the board with the task of restructuring the Postgraduate curriculum in Home Science.

I place on record my indebtedness to all the members of the Board of Studies for their valuable contributions. I gratefully acknowledge the subject experts Dr.Kamalamma N, Prof. (Rtd), Gandhigram Rural Institute, Dr.Subhadra Prabhu, Asst. Professor, Nirmala Nikethan College of Home Science, Mumbai, Dr.Saradha Rama Das and Dr.Kowsalya S, Associate Professors, Avinashilingam Deemed University, Coimbatore and Ms.Little Flower Augustine, Nutrition Consultant, National Institute of Nutrition, Hyderabad, for patiently scrutinizing the draft curriculum and offering their valuable advice and expert opinion.

Special thanks are due to Prof.A.S. Vargheese ,former HOD of Physics Department, CMS College, Kottayam for providing valuable suggestions on course structure, credit and evaluation.

The help provided by Dr.Shirly Rachel Kurian, Dr.Ancy Thomas, Mrs.Susan Cherian and Dr.Anu Joseph in holding the workshop and compiling the syllabi is gratefully acknowledged.

No words are enough to thank Ms. Indulekha G, Ms.Linta Michael, Ms.Minitha Susan Joseph and Ms. Treesa Sindhu P. Thomas for their valuable inputs and secretarial assistance.

My appreciation and heartfelt thanks to all the faculty members for their untiring efforts and committed devotion towards the successful completion of restructuring the MSc.Syllabi in Home Science.
I am happy to submit this restructured curriculum and syllabi for PG courses in HOME SCIENCE to the Mahatma Gandhi University on behalf of the Board of Studies.

Dr. Miriam Mani,

Chairperson

Board of Studies (PG&UG combined)

Home Science
PROGRAMME STRUCTURE

(BASED ON MAHATMA GANDHI UNIVERSITY REGULATIONS FOR THE CONDUCT OF POST GRADUATE PROGRAMMES IN AFFILIATED COLLEGES)

1. All the Post Graduate programme in Home Science (Branches XA TO XE) will comprise of four semesters. Each semester will have 90 working days, inclusive of examination, distributed over a minimum of 18 weeks of 5 working days each.

2. GENERAL SCHEME OF THE SYLLABI:

The programme will include two types of courses, Programme Core (PC) courses and Programme Elective (PE) Courses. There shall be a Program Project (PP) with dissertation to be undertaken by all students. The programme will include assignments, seminars and practical viva. There shall be various elective courses for a programme for the choice of students subject to the availability of faculty and infrastructure in the institution. There will be 5 papers in each semester. The papers in the first three semesters will constitute the core element and the papers in the final semester will be the optional component, which can vary from college to college.
## PG PROGRAMME IN HOME SCIENCE – COURSE STRUCTURE AND CREDIT

**TOTAL CREDITS – 80**

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>TEACHING HOURS/WK</th>
<th>TEACHING HOURS/SEM</th>
<th>CREDITS</th>
<th>TOTAL CREDITS</th>
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<td>90</td>
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<td>90</td>
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<td>PC – 5</td>
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<td>90</td>
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<td>PC – 9</td>
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<td></td>
<td>PC - 10</td>
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<td>90</td>
<td>4</td>
<td></td>
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<td></td>
<td>PC - 11</td>
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<td>90</td>
<td>4</td>
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<td>90</td>
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<td>72</td>
<td>4</td>
<td>26</td>
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<td>PRACTICAL</td>
<td>6</td>
<td>108</td>
<td>3</td>
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</tr>
<tr>
<td></td>
<td>DISSERTATION</td>
<td>-</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VIVA - VOCE</td>
<td>-</td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
COURSE CODE:

Each course will have an alpha numeric code number which includes first two letters indicating the abbreviation of the subject in two letters, the second two letters denotes specialization area, the semester number, the code of the course and the serial number of the course (C-Programme Core Course, E- Programme Elective Course, P- Practical and D- Project with Dissertation). ie. HS indicates Home Science, next two letters denotes specialization (eg. DF for dietetics and food service management) next the semester number (1, 2, 3 or 4), CT for core theory, CP for core practicals, ET for elective theory, EP for elective practical and then the course number (01, 02 etc.). Courses with credits and scheme of instructional hours for core and elective courses are given under each Programme according to the specialization.

3. EXAMINATIONS

The evaluation of each course shall contain two parts such as Internal or In-Semester Assessment (IA) and External or End-Semester Assessment (EA). There will be University Examinations at the end of each semester for both theory and Practical with duration of 3 hrs. Project evaluation and comprehensive Viva-voce shall be conducted at the end of the programme only. The ratio between internal and external examinations shall be 1:3.

4. EVALUATION AND GRADING

The internal and external examinations shall be evaluated using Direct Grading system based on a 5- point scale.

Internal or In-Semester Assessment (IA) and End Semester Assessment (EA)

Internal evaluation is to be done by continuous assessments. The internal assessment grade awarded to the students in each course in a semester shall be published on the notice board at least one week before the commencement of external examination. The components of the internal and external evaluation for theory and practical and their weights are as below.
THEORY

IA = Total weight = 10

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Attendance*</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 90%</td>
<td>A</td>
</tr>
<tr>
<td>≥ 85 and &lt; 90</td>
<td>B</td>
</tr>
<tr>
<td>≥ 75 and &lt; 85</td>
<td>C</td>
</tr>
<tr>
<td>&lt; 75</td>
<td>E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Assignment – Weight=2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punctuality</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Content</td>
<td>2</td>
</tr>
<tr>
<td>Conclusion</td>
<td>1</td>
</tr>
<tr>
<td>Reference</td>
<td>1</td>
</tr>
<tr>
<td>General get up</td>
<td>1</td>
</tr>
</tbody>
</table>

One assignment as an internal component for every course. The topic for the assignment shall be allotted within 6th week of instruction.

<table>
<thead>
<tr>
<th>c. Seminar</th>
<th>weight=3</th>
</tr>
</thead>
</table>

Expected to train the student in self-study, collection of relevant matter from the books and internet resources, editing, document writing, typing and presentation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Punctuality</td>
<td>1</td>
</tr>
<tr>
<td>b. Topic &amp; content</td>
<td>2</td>
</tr>
<tr>
<td>c. Presentation</td>
<td>3</td>
</tr>
<tr>
<td>d. Response to questions</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d. Tests</th>
<th>weight=4</th>
</tr>
</thead>
</table>

At least two class tests as an internal component for every course with a weight two each. The weighted average shall be taken for awarding the grade for the class tests.

EA - Total weight = 30

<table>
<thead>
<tr>
<th>Pattern of question paper</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Type</th>
<th>Weight</th>
<th>To Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Short answer type (within 1 page)</td>
<td>1</td>
<td>5 out of 8</td>
</tr>
<tr>
<td>B</td>
<td>Short essay/Problem solving type(not exceeding 2pages)</td>
<td>2</td>
<td>5 out of 8</td>
</tr>
<tr>
<td>C</td>
<td>Long Essay Type questions</td>
<td>5</td>
<td>3 out of 6</td>
</tr>
</tbody>
</table>

*Total weight=5+10+15=30

*Ensure that questions covering all skills are set (Knowledge acquired, Standard application of knowledge, ability to synthesize knowledge )

*Conducted at the end of every semester and will be of 3 hrs duration.
**Attendance:**

The attendance of students for each course shall be another component of internal assessment with weight one. The minimum requirement of aggregate attendance during a semester for appearing in the end semester examination shall be 75%. Condonation of shortage of attendance to a maximum of 10 days in a semester subject to a maximum of two times during the whole period of post graduate programme may be granted by the University.

If a student represents his/her institution, University, State or Nation in sports, NCC, NSS or Cultural or any other officially sponsored activities such as college union/University union activities, he/she shall be eligible to claim the attendance for the actual number of days participated, subject to a maximum of 10 days in a semester based on the specific recommendations of the Head of the department and Principal of the college concerned.

### PRACTICAL

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight</th>
<th>Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Attendance</td>
<td>1</td>
<td>b. Lab involvement</td>
<td>1</td>
</tr>
<tr>
<td>c. Written/Lab Test</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>d. Record</td>
<td>1</td>
<td>e. Viva</td>
<td>1</td>
</tr>
<tr>
<td>Practical/Project/Record</td>
<td></td>
<td>c. Viva Voce aspects</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Knowledge of subject -3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Communication Skill -1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- General Poise -1</td>
<td></td>
</tr>
</tbody>
</table>

# The external examination of practical shall be conducted by the university at the end of each semester of three hours duration.

# It can be done by one external and one internal examiner.
## PROJECT/DISSERTATION

<table>
<thead>
<tr>
<th>Components</th>
<th>Weight</th>
<th>Components</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Punctuality</td>
<td>1</td>
<td>1. Valuation of dissertation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Title</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Clarity, brevity, originality)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Introduction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(presentation of problem, Relevance, applicability, definition of terms, objectives in general)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Relevance, recent literature, Related studies done in the field, organisation of materials)</td>
<td></td>
</tr>
<tr>
<td>3. Presentation</td>
<td>1</td>
<td>4. Methodology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(specific objectives, research design, Tool- appropriateness ,preparation, standardisation, Sample-size, technique of Selection, statistical techniques for data analysis)</td>
<td></td>
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<tr>
<td>4. Viva</td>
<td>1</td>
<td>5. Results &amp; Discussion</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Presentation, interpretation of results, Tables, figures, Descriptive or statistical analysis, interpretation of results with supportive evidences, Relationship of results with variables studied &amp; with general body of knowledge)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Summary &amp; Conclusion</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Statement of problem, procedure Findings, conclusions, Recommendations ) (in brief)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Bibliography/References</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Techniques of writing(consistent Format-standard pattern, accuracy of reference reporting(text of thesis Vs bibliography)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>8. General Get-up</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Absence of mistakes(typographical errors, grammer, omission of sentences, pagination, style &amp; clarity)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>9. Presentation/Viva-Voce</td>
<td>5</td>
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<td></td>
<td></td>
<td>Aspects</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-knowledge of the topic - 2</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>-Clarity of presentation - 1</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>-communication skil1 - 1</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>-general poise</td>
<td></td>
</tr>
</tbody>
</table>

*Project work shall be completed working outside the teaching hours.

*It shall be carried out under the supervision of a teacher in the concerned department/in certain cases permitted to work on the project in an industrial/research organization on the recommendation of the supervisor.
The external evaluation of the project work is followed by presentation of work including dissertation and Viva-Voce.

It shall be conducted by a Board of three examiners at the end of fourth semester. The Board shall have two external examiners and one internal examiner (the HoD or nominee) and can be scheduled by the chairman of the Board of Examiners.

**COMPREHENSIVE VIVA-VOCE**

<table>
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<tr>
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<tr>
<td>Aspects</td>
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<tr>
<td>-Knowledge from subject of interest</td>
<td>4</td>
</tr>
<tr>
<td>-Knowledge on the fundamentals of the subject</td>
<td>4</td>
</tr>
<tr>
<td>-Topics covering all semesters</td>
<td>6</td>
</tr>
<tr>
<td>-Awareness of current and advanced topics connected with the subject</td>
<td>2</td>
</tr>
<tr>
<td>b. Communication skill</td>
<td>2</td>
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<tr>
<td>c. General Poise</td>
<td>2</td>
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A team of external examiners will hold the same covering topics in the four semesters, giving equal weight.

It shall be conducted by a Board of three examiners at the end of fourth semester. The Board shall have two external examiners and one internal examiner (the HoD or nominee) and can be scheduled by the chairman of the Board of Examiners which will be conducted along with the thesis/Project presentation.
## SCHEME OF EXAMINATION AND WEIGHT DISTRIBUTION

<table>
<thead>
<tr>
<th>COURSE NO.</th>
<th>TIME (Hrs)</th>
<th>INTERNAL (WEIGHT)</th>
<th>EXTERNAL (WEIGHT)</th>
<th>PROJECT</th>
<th>VIVA-VOCE</th>
<th>TOTAL</th>
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<tr>
<td></td>
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<td>Theory</td>
<td>Practicals</td>
<td>Theory</td>
<td>Practicals</td>
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<td>30</td>
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<td>30</td>
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PC-Paper Core, PE-Paper Elective.

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*M.Sc. Programme in Home Science Mahatma Gandhi University*
PASS REQUIREMENT

- A separate minimum of C Grade for Internal and External are required for a pass for every course.
- For the successful completion of a semester, a student should pass all courses and score a minimum Semester Grade Point Average (SGPA) of 1.50 (Grade C). However, a student is permitted to move to the next semester irrespective of her / his SGPA).
- For a pass in a programme a separate minimum Grade C is required for all the courses and must score a minimum Cumulative Grade Point Average (CGPA) of 1.50 or an overall grade of C and above.

REAPPEARANCE OF FAILED CANDIDATES

There will be no supplementary examinations. A student who fails to secure a minimum grade for a pass in a course will be permitted to write the examination along with the next batch.
Branch X A

CHILD DEVELOPMENT & BEHAVIOUR SCIENCE

Introduction

The Master’s programme in Child Development & Behaviour Science is built upon knowledge and competencies developed during the undergraduate programme. The focus of the post-graduate programme is to develop professional and entrepreneurial skills in the domains of early childhood care and education, working for persons with special needs, working with the elderly, empowerment of families and communities, development programming and dealing with behavioural and mental health issues.

The curriculum focus at post-graduate level is to foster a firm theoretical background with amalgamation of practical skills and development of research related abilities, so that the graduates are capable of critical and analytical thinking, sensitive to societal issues and concerns, and able to communicate skillfully.

The programme aims at creating professionals who will utilize the substantive knowledge in the realm of Child Development & Behaviour Science to respond to the challenges of a dynamic socio-economic-political situation and system. The students would be competent to address emergent issues and concerns of society with sensitivity to understand cultural, psychological and life-span developmental perspectives.

The programme would enable graduates to work as: teachers at university level, researchers, co-ordinators/supervisors/programme planners in government and non-governmental organizations/agencies at national and international level. The students having adequate background in planning, evaluating, monitoring and organizing skills would be able to work as entrepreneurs and also play advocacy related roles.
Objectives

The Post-Graduate programme in Child Development and Behaviour Science will focus on developing knowledge and competence for:

(i) Teaching and research in academic and other institutions.
(ii) Planning and conducting intervention, guidance and advocacy for empowerment of families and communities.
(iii) Supervisory, training and consultancy roles and responsibilities in Government and non-government agencies/institutions.
(iv) Entrepreneurship in specific areas of human development and family studies.
(v) Planning, monitoring and evaluation of various programmes for children, women and families in general.
(vi) Advocacy and policy related roles

Eligibility

For admission to the post graduate programme in Child Development & Behaviour Science (Branch X A) the applicant must have passed B.Sc. Family & Community Science / Home Science Model I & II of the Mahatma Gandhi University or any statutory university recognized by the Mahatma Gandhi University with not less than 55% in Part III.

Graduates in Food Science and Quality control with not less than 55% in Part III are also eligible.In addition to the existing criteria, candidates with B.Sc. Degree in Food Service Management & Dietetics, Clinical Nutrition and Dietetics are also eligible. Weightage will be given to the above mentioned degrees.Graduates in Psychology, Human Development, Nursing or any Science graduate with PG Diploma in Pre-School Education/Counselling Psychology or Science Graduates with Open Course namely Life Skills Strategies and Techniques are also eligible.
## BRANCH X A

### CHILD DEVELOPMENT & BEHAVIOUR SCIENCE

**COURSE OUTLINE**

<table>
<thead>
<tr>
<th>SEMESTER</th>
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**Electives**

- Elective 6: Developmental Communication and Extension
- Elective 7: Hospitality Administration
- Elective 8: Development of Self
- Elective 9: Development of Creativity
- Elective 10: Public Health Nutrition

**TOTAL CREDITS: 80**
SEMESTER ñ 1

ADVANCED STUDY IN CHILD DEVELOPMENT

Course Code: HSCD1CT01

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To make a study on the stages of Child Development from prenatal development up to adolescence.

• To understand the principles and factors affecting Child Development in these stages.

• To understand recent researches/advancements in the study of Child Development.

• To promote an interest in research in Child Development.

Course Outline

Module 1: Concept of Child Development

Trends in Contemporary Research in Child Development, Basic Issues/Themes in Child development

Module 2: Heredity and Environment


Module 3: Pre-natal Development

Stages, Maternal conditions and Teratogens, Screening for Abnormalities- Ultrasound, Amniocentesis, Chorionic villus Sampling, test-tube screening, Assistive re-production.

Module 4: Infancy and Toddler years


Module 5: Early Childhood Years (2-6 years)

Module 6: Late Childhood Years (from 6 years up to adolescence)

Physical and Motor development, Cognitive development, Social and Emotional development, Growth of peer relations.

Related Experiences

1. Visit a neonatal clinic in hospital to observe the new born children.
2. Conduct an educational programme for rural mothers on ante-natal care.

References

Course Outline

Module 1: Introduction to Early Childhood Education

Significance, Objectives, Types of preschools/programmes: Playschool, Day care, Montessori, Kindergarten, Anganwadi. Concept of formal, non-formal and play way methods. Basic principles of developmentally appropriate practices and their need.

Module 2: Historical Trends

Contributions of the following thinkers to the development of ECE (Principles, applications and limitations) Pestallozi, Rousseau, Frobel, John Dewey, Maria Montessori, Rabindranath Tagore, Mahatma Gandhi, Aurobindo and Krishnamurthi. Curriculum models and approaches. Childhood needs, care and education.

Module 3: ECCE in India

Contribution of Five Year Plans to ECCE, Contribution of National Agencies and programmes to ECCE: ICCW, IAPE, NCERT, UNICEF, ICDS, Early Childhood Education in Contemporary India.

Module 4: Organization and Management of Pre-school Centres

Physical setup – Building, Furniture, Equipment and Materials, Personnel for preschools – Teaching & Non-Teaching, Management of Preschools – Budgeting, Administration and Records, Defining quality in preschool programmes: ratio, child adult interaction, physical environment, staff consistency, Organizing and structuring the physical environment, disaster management.

Module 5: Programme Planning

Principles of programme planning, Long term and short term planning, weekly and daily planning, routine and schedules, Planning developmentally appropriate curriculum (scheduling), Designing and maintaining outdoor and indoor space, Maintenance of records; Materials, indoor and outdoor equipment.

Module 6: Activities for ECCE

Language, Art and Craft activities, Music, movement and aesthetics, Mathematics, Science, Social studies, dramatization, reading and writing readiness, Activities to promote socio emotional development, physical and motor development, Play, Methods of engaging with children.

Module 7: Community Involvement

Need for Parent - Teacher meeting, Parental awareness program.
Related Experiences

1. Visit to pre-schools in rural/urban setup,
2. Home visits in rural/urban setup
3. Preparation of creative album/universal curriculum/puppets and other teaching aids
4. Conduct awareness campaigns as an ECCE teacher for improving the status of young children
5. Design a simple pamphlet with pictures or use any medium such as songs for advocacy in the local language keeping in mind the needs and literacy status,

References


• Curtis, A, O'hagan, M, (2009) Care and Education in Early Childhood: A Student's Guide to Theory and Practice (Paperback) by Publisher: Routledge


• Gupta, S.M Early Childhood Care and Education (Paperback) Phi Learning publishers

• http://www.educationforallinindia.com


• Morrison, G.S. (2011) Early Childhood Education Today (Hardcover) Publisher: Pearson Custom Publishing

• Nutbrown, C, (2011) Key Concepts in Early Childhood Education and Care (Paperback) by Publisher: Sage Publications (ca)

• Ray, S, (2009) Early Childhood Education And Sustainable Society (Hardcover) by Publisher: Adhyayan Publishers

• Selbie, P, Clough, P, Nutbrown, C(2008) Early Childhood Education: History, Philosophy and Experience (Paperback) by Publisher: Sage Publications (ca)

ADOLESCENCE: DEVELOPMENT AND CHALLENGES

Course Code: HSCD1C0T03

Teaching hours: 5hrs/week
Credit: 4

Objectives

- To gain knowledge regarding the growth spurt of adolescents
- To understand the development and characteristics of adolescents
- To make the students aware of the current issues confronting adolescents.

Course Outline

Module 1: Adolescent Development and the Biology of Puberty

Physical changes; Primary and secondary characteristics; Psychological response to puberty

Module 2: Social and Emotional Development


Module 3: Cognitive and Moral Development

Reasoning, Critical thinking, Reflective judgement, Moral reasoning and judgement; Formal operations-intellectual development during adolescence, Changes in moral concepts, religious beliefs and attitudes

Module 4: Issues and concerns in Adolescence

Health Issues: Obesity, Underweight, Anaemia in girls, Sexually Transmitted Diseases, Reproductive health issues - Mental Health Issues: Anxiety, Depression, Suicide, Eating disorders: Anorexia Nervosa, Bulimia, Substance abuse - Social Issues: Peer Pressure, Bullying, Sexual abuse, Delinquency, Anti-social Behaviour - Social Change and Adolescent Development:

Module 5: Development of Self

Identity Formation: Identity Crisis, esteem. The Concept of Self in social context, Self-Regulation and Positive Youth Development. Motivation: Maslow’s Hierarchy of Needs
Module 6: Academic Achievement and Career choice

Factors influencing academic achievement, Academic pressure, career choice, The Relationship between Academic Self-Concept and Achievement. Government programmes for education of adolescents in India

Related Experiences

1. Discussion in class about the problems confronting adolescents today.
2. Discuss on the issues relating to parent-adolescent relationship.
4. Plan an education programme on any issues relating to adolescents in an urban/rural set up.
5. Group discussion on the use/misuse of electronic media by adolescents.

References


NUTRITION THROUGH LIFE CYCLE

Course Code: HSCD1CT04

Teaching hours: 5hrs/week

Credit: 4

Objectives

• To enable students to understand the basics of human nutritional requirements and the role of nutrition in different stages of the life cycle.

Course Outline

Module 1: Understanding Nutrition

Methods for studying human nutritional requirements, Principles of computation of RDA for Indian adults by ICMR — Energy, Protein, Fats, Mineral and Vitamin requirements (Calcium, Phosphorus, Iron, Zinc, Thiamine, Folic acid, Vitamin C, Vitamin A, Vitamin D) and Dietary Fiber.

Module 2: Nutrition in Pregnancy

Physiological stages of Pregnancy and nutrition demands, Pregnancy weight gain, Principles of estimating nutritional needs in Pregnancy, Physiological adjustments that may affect nutrient needs of pregnancy, Effect of Under nutrition on Mother and Child Health, Diet in Pregnancy, Adolescent Pregnancy, Pregnancy and AIDS

Module 3: Nutrition in Lactation


Module 4: Nutrition in Infancy

Pre Term and Low Birth Weight Infants—Nutritional management, Feeding of Pre Term and Low Birth Weight Infants, Importance of Good Weaning, ARF, Growth monitoring

Module 5: Nutrition in Childhood

Normal Pattern of Growth and Development, Norms/ Standards for Growth in children, Nutritional requirements of children, Malnutrition and Mental Development, PEM—Types, Etiology, Classification, Nutritional Management

Module 6: Nutrition in Adolescence

Normal Pattern of Growth and Development, Nutritional requirements of adolescents, Eating Disorders in Adolescents
Module 7: Geriatric Nutrition

Socio economic and psychological factors of elderly, Physiological changes in old age affecting nutrition, Nutritional requirements and food modifications in old age.

Module 8: Nutrition in special events

Space nutrition, High altitude nutrition, Nutrition in Cold/Polar environments.

References:

- ACC/SCN Reports
- International Child Health: A Digest of Current Information
- Nutrient Requirements and Recommended Dietary Allowances for Indians-A report of the expert group of the ICMR.2010.

EARLY CHILDHOOD CARE AND EDUCATION ÿ INTERNSHIP AND PRACTICALS

Course Code:  HSCD1CP05

Teaching hours: 5hrs/week

Credit:  2

Objectives

• To acquire skills in planning, organizing and implementing programme in a pre-school (rural and urban)
• To familiarize students with community and parents regarding ECCE.
• To develop skills in organizing community and parental awareness programmes in rural and urban areas relating to early childhood.

Course Outline

Module 1
Developing plans for ideal nursery schools ÿ rural and urban set up

Module 2
Evaluate and report the functioning and management of any one institution catering to early childhood care and education.

Module 3
Market survey on equipment for preschools and prepare a list of equipment suitable for ideal nursery schools ÿ urban and rural.

Module 4
Observe and document (1) festivals/celebrations in preschools (ii) observance of days of national importance in preschools (iii) anecdotes of children’s responses.

Module 5
Plan and organize two workshops/parental awareness classes for parents in urban and rural preschool settings.

Module 6
Field Placement: Organize, development and theme based programmes for preschool children in rural and urban preschools for two weeks. Evaluate the experience and document the placement experience.

Viva
SEMESTER II

EDUCATION OF CHILDREN WITH SPECIAL NEEDS I

Course Code: HSCD2CT06

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To enable students to become aware of the various impairments that affect children and the special education methods that can be employed.
- To become aware of the categories of children with special needs, their problems and their rights
- To gain information on the causes and prevention of disabilities.

Course Outline

Module 1: Concept of Exceptional Children

Definition, Classification, Magnitude of the problem in India. Special needs and Rights of the disabled.

Module 2: Special Education

Definition, Objectives, Types, Role of National Institutes and the Rehabilitation Council of India. Use of technology and assistive devices in Special education and Rehabilitation. Recent trends.

Module 3: Mentally Challenged Children

Definition, Classification, Causes, Identification, Characteristics, Early Intervention and Special Education, Prevention.

Module 4: Visually Challenged Children

Definition, Classification, Identification, Causes, Characteristics, Special Education and Rehabilitation, Prevention.

Module 5: Learning Disabled Children

Definition, Types, Causes, Characteristics, Identification and assessment, Educational approaches.
Module 6: Attention Deficit Hyperactive Disorder (ADHD)

Definition, Causes, Identification, Educational Strategies

Related Experiences

1. Observe the special methods of educating the mentally and visually challenged, the Learning Disabled and the children with ADHD.

2. Undertake visits to institutions/rehabilitation centres to learn about their functioning

3. Interview school counsellors to know about the incidence of Learning disabilities/ADHD among children and the remedial measures offered.

References

- Stowe Cynthia M. (2005), Understanding Special Education: A Helpful Handbook For Classroom Teachers [Paperback] Scholastic Inc
CHILD RIGHTS AND WELFARE

Course Code: HSCD2CT07

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the situation of children in India and to know the challenges faced by children.
- To create an awareness and sensitivity to childrenís rights.
- To make students aware of the welfare programmes/services for children.
- To review the legislations pertaining to children.

Course Outline

Module 1: Children in India and their Rights


Module 2: Issues facing Children in India


Module 3: Legislation pertaining to children


Module 4: National Policies/Governmental Schemes/Programmes for the benefit of children

Integrated Child Developmental Scheme (ICDS); National Plan of Action for Children,
2005, Rajiv Gandhi National Crèche Scheme for Children of Working mother, Kishori Shakti Yojana (KSY), Nutrition Programme for Adolescent Girls (NPAG), Counselling and Guidance services provided by the State Child Line Foundation (CIF), Integrated Programme for Street Children, Childline service.

Module 5: Awareness and Advocacy for Child Rights (10 hrs)

Agencies and institutions involved in promotion of child's rights and means of advocating.

Related Experiences

1. Group discussion on child abuse as reported in the media
2. List the welfare programmes available to street children in the city.
3. Arrange talks by guest speakers on laws pertaining to children.
4. Visit to any institution working for the welfare of children.

References

- Childrensrightsindia.org
- http://wcd.nic.in/wgchilprotection.pdf
- Sarada D and Rajani N (2009), Child Rights and Young lives. New Delhi Discovery Publishing house pvt ltd

MENTAL HEALTH IN DEVELOPMENTAL PERSPECTIVE

Course Code: HSCD2CT08

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the importance of mental health at different stages.
- To develop skills for promoting mental health across the life span.
• To identify mental health issues in the community and sensitizing its members.
• To develop skills of organizing school mental health programme.

Course Outline

Module 1: Introduction


Module 2: Infancy

Development of attachment phases, Attachment to significant members and objects, Types, Factors affecting attachment. Implication of attachment and bonding for mental health

Module 3: Early childhood years

Mental health needs - safety, security, relationships, autonomy and self-esteem. Behaviour difficulties.

Module 4: Middle childhood

Mental health needs: recognition, appreciation, friendship and industry. Maladjustment at home and school. Need for providing guidance to children, parents, teachers

Module 5: Mental health issues during adolescence

Anxiety, Depression, suicide, substance abuse. Peer pressure, bullying, sexual abuse, antisocial behavior

Module 6: Mental health problems in the community:

Major stressors in life, Physiological and psychological reactions to stress, Managing stress. Neurotic and psychotic behavior, General therapeutic measures.

Related experience

1. Discuss in class the reasons for the increasing incidences of mental health problems during adulthood.

2. Visit a counseling centre/organize a talk to understand the current mental health issues among children, adolescents and adults
References:


RESEARCH METHODS AND STATISTICS

Course Code: HSCD2CT09

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the significance of research methods and statistics in Home Science research.
• To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
• To understand and apply the appropriate statistical techniques to analyse numerical data and draw inferences.

Course Outline

Module 1 ñ Introduction to Research

Definition, Objectives and Characteristics of research, Types of Research ñ Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research.

Module 2 ñ Identification of Research Problem

Sources of research problem, Criteria for the selection of research problem. Research design, Rationale, Statement of problem, Setting objectives, Definition of concepts, operational definition, variables ñ independent and dependent, control and intervening variables, limitations and delimitation. Hypothesis ñ Meaning and importance, types of hypotheses.

Module 3 ñ Sampling

Population and Sample, Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non sampling errors.

Module 4 ñ Research methods and tools


STATISTICS

Module 1 - Descriptive Statistics:

Measures of Central Tendency ñ Mean, Median, Mode; Partition Values ñ Quartiles, Deciles and Percentiles, Measures of Dispersion ñ Range, Quartile deviation, Standard deviation. Absolute and Relative measures of dispersion, Coefficient of variation.

Module 2 - Correlation and Regression:

Correlation and Regression. Scatter diagram, Correlation, Coefficient of Correlation ñ Karl Pearson and Rank Correlation Coefficients. Interpretation of Calculated coefficients. Concept of Regression, Regression Lines and their estimation.

Module 3 - Concept of Probability and Random Variable.

Module 4 - Sampling distributions

Sampling distributions, F and $\chi^2$ distributions. Central Limit theorem, Standard error and its importance and applications. Testing of Hypothesis ñ Hypothesis, Null and Alternative hypothesis, Type I and Type II errors, Significance Level and size of test, Critical Region, Testing Procedure concept of P Value in testing. Large and small sample tests ( Z, t, F and $\chi^2$statistics)

Related Experience

Afive day training in using SPSS or similar package used in statistical analysis of data.

References


CHILD RIGHTS AND WELFARE

Course Code: HSCD2CP10

Teaching hours: 5hrs/week

Credit: 2

Objectives

- To become aware of the programmes and services available to children in the community
- To understand and acquire skills for working with children.
**Course Outline**

**Module 1**
Report on the governmental welfare programmes and services for children

**Module 2**
Plan and organize an educational programme for parents/teachers to promote child rights in the community and document the proceedings of the programme.

**Module 3**
Visit any two institutions working for the welfare of children and study the rights based approach followed and report the experience.

**Module 4**
Discuss and report about the prevalence of child abuse in Kerala as reported by media.

**Module 5**
One week internship in any institution promoting the welfare of children.

**Module 6**
Organize an educational programme for children on any one of the following topics: (i) Nutrition/physical fitness/health (ii) Safeguarding children against abuse (iii) Study skills/academic achievement (iv) Mental health issues (v) Creativity/self esteem (vi) Legal awareness (vii) Rights of the child. Document the proceedings of the programme and the display materials used to generate awareness among the target group.

**Viva**

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**SEMESTER III**

**THEORIES OF CHILD DEVELOPMENT AND BEHAVIOUR**

Course Code: HSCD3CT11

Teaching hours: 5hrs/week

Credit: 4

**Objectives:**

- To help students understand and/predict Child Development and Behaviour
- To develop a critical appraisal of important theoretical approaches in the study of Child development
To know the practical application of theory in Child development and to promote research.

Course Outline

Module 1: Introduction
Developmental theory: Definition of Theory, Functions of Theories; Theories in Perspective

Module 2: Psychoanalytic Perspective
Freudís Psychoanalytic/Psychodynamic/Psychosexual Theory: General Orientation; Description of Stages.Eriksonís Psychosocial theory: General Orientation,

Module 3: Learning Theory Perspective
Classical Conditioning-Pavlov, Behaviourism- Watson; Operant Conditioning- B.F. Skinner; Observational Learning and Social Learning/ Social Cognitive Theory- Bandura

Module 4: Cognitive Perspective
Piagetís Theory: General Orientation to the theory, Description of stages; Information Processing Theory-Neo-Piagetian theorists

Module 5: Contextual Perspective
Vygotskyís Contextual/ Socio-cultural theory; Bronfenbrennerís Ecological Theory

Module 6: Biological/Ethological/Evolutionary Perspective
Ethology theory of Lorenz, Ethologically Oriented Theories - Bowlby, Ainsworth

Module 7: Theories of Language development:
The Learning view, The Nativist View, Interactionist view

References

METHODOLOGY AND TECHNIQUES OF CHILD STUDY

Course Code: HSCD3CT12

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the significance of studying children
- To acquaint students with various methods for studying children
- To develop the ability to select appropriate methods for studying children

Course Outline

Module 1: Introduction

Significance of studying children, Need for developmental assessment, Ethics in Testing

Module 2: Methods of Studying Children

Systematic Observation, Interview, Questionnaire, Case study, Ethnography, Social Survey, Clinical Method

Module 3: Assessment of Growth in children

Anthropometric measurements: Height, Weight, Mid upper arm circumference, Head circumference.

Module 4: Assessment of Motor Development in children

Need and importance of assessing infants, Denver Neonatal Behavioural Assessment Scale, Brazelton Neonatal Behavioural Assessment Scale, Bayley Scales of Infant Development, Trivandrum Developmental Screening Test, Psychosocial Developmental Screening Test (ICMR)

Module 5: Assessment of Cognitive Abilities

Binet-Kamath Intelligence Test, Wechler scales for children, Raven Progressive Matrices
Module 6: Measurement of Social and Emotional Development

Sociometric technique-sociogram, Vineland Social Maturity Scale, Fear Checklist, Anxiety Scale.

Module 7: Assessment of Personality

Rating Scale, Attitude scale, Test for Aptitude and achievement. Inventories ñ Purpose and Types; Mooney Problem Checklist, The Minnesota Multi-purpose Personality Inventory. Cattle 16 PF, Thomas, Chess and Birch (1972), Parent questionnaire to measure temperament/behavioural profile of children.

Module 8: Projective Techniques

Children Apperception Tests, Word Association Test, Draw-a-man Test, Rorschach ink-blot Test, Role play, Completion techniques. Creative or Constructive technique: Clay modelling, finger painting, play with toys, drawing or writing imaginative stories etc.

Related experiences

1. Visit to a Child Guidance Centre
2. Observe administration of tests and its assessment in a child guidance centre
3. Administration of Sociogram in a class room set up.

References

EDUCATION OF CHILDREN WITH SPECIAL NEEDS II

Course Code: HSCD3CT13
Teaching hours: 5hrs/week

Credit: 4

Objectives

- To become informed about the special education strategies available for challenged children
- To be informed about the characteristics of children with special needs
- To be aware of the role of parents and teachers in educating children with special needs

Course Outline

Module 1: Gifted and Creative Children
Definition, Identification, Characteristics, Special education, Nurturing Creativity, Vocational Guidance and Counselling.

Module 2: Socially Maladjusted children
Juvenile Delinquents-Definition, Etiological factors, Rehabilitation and Reformatory measures for delinquents, Prevention.

Module 3: Emotionally Disturbed Children
Definition, Common Disorders-Phobia, Anxiety, Aggression, Obsessive Compulsive Disorders, Autism and Childhood Schizophrenia: Causes, Identification, and Assessment, Treatment and Remediation.

Module 4: Children with Physical and Health impairments
Definition, Classification, Etiological factors, Treatment, and Rehabilitation, Prevention.

Module 5: Children with Communication Disorders
Definition, Speech Disorders, Language Disorders, Causes, Assessment, and Remediation.

Module 6: Children with Hearing Impairments
Definition, Etiological factors, Classification, Characteristics, Special Education and Rehabilitation, Prevention.
Related Experiences

1. Observing the special methods of educating children with hearing impairments
2. Understanding the various therapies used in the treatment of non-sensory physical handicaps.
3. Visiting child guidance centre/child counselling centre to understand its functioning.

References

• Folks, Homer, (2010) The Care of Destitute, Neglected and Delinquent Children, Gale publishers
• Schwartz Diane (2005 ) Including Children With Special Needs: A Handbook For Educators And Parents, Greenwood pub, United states
• Stowe Cynthia M. (2005), Understanding Special Education: A Helpful Handbook For Classroom Teachers [Paperback] Scholastic Inc
SCIENTIFIC WRITING AND PROJECT FORMULATION

Course Code: HSCD3CT14
Teaching hours: 5hrs/week
Credit: 4

Objectives

- To be able to appreciate and understand importance of writing scientifically.
- To develop competence in writing and abstracting skills.

Course Outline

Module 1: Scientific writing as a means of communication

Different forms of scientific writing. Articles in journals, Research notes and reports, Review articles, Monographs, Dissertations, Bibliographies, Book chapters and articles.

Module 2: How to formulate outlines

The reasons for preparing outlines: as a guide for plan of writing, as skeleton for the manuscript, Kinds of outlines, Topic outlines, Conceptual outline, Sentence outlines, Combination of topic and sentence outlines

Module 3: Drafting titles, Sub titles, tables, illustrations

Preliminary processing of data, Classification and organization of data, Objectives of classification, Tabulation of data, General rules of tabulation. Tables, Parts of a table, Types of tables. Representation of data, Significance of diagrams and graphs, Types of diagrams and graphs, advantages and limitations

Module 4: The writing process

Getting started, Use outlines as a starting device, Drafting, Reflecting, re-reading; Checking organization, Checking headings, Checking content, Checking clarity; Checking grammar, Brevity and precision in writing, Drafting and re-drafting based on critical evaluation

Module 5: Parts of dissertation/research report/article

Introduction, Review of literature, Methods, Results and discussion, Summary and abstract, References. Ask questions related to: content, continuity, clarity, validity, internal consistency and objectivity during writing each of the above parts.

Module 6: Writing for Grants

The question to be addressed, Rationale and importance of the question being addressed, Empirical and theoretical framework, Presenting pilot study/data or background information, Research proposal and time frame; Speciality of methodology, Organization of
different phases of study, Expected outcome of study and its implications, Budgeting, Available infra-structure and resources, Executive summary

References


SPECIAL EDUCATION AND REHABILITATION STRATEGIES

Course Code: HSCD3CP15

Teaching hours: 5hrs/week

Credit: 2

Objectives

- To gain experience in planning and executing educational programmes for children with special needs
- To interact with parents of disabled children and understand their special needs and problems.
- To spread awareness in the community regarding the causative factors and strategies for management and prevention of disabilities.
Course Outline

Module 1
Visits to institutions/rehabilitation centres catering to children with special needs and assess the facilities available

Module 2
Interview parents of children (two children, a boy and a girl) to understand their problems and needs.

Module 3
Internship—collaborate with professionals in conducting centre based intervention/special education in special schools/clinics/paediatric wards/special education centres for two weeks.

Module 4
Conduct an educational programme on the causes/management/prevention of disabilities.

Module 5
Conduct sports and games for children with special needs

Module 6
Plan and coordinate art and craft activities (any two) for children with special needs

Viva

SEMESTER IV

GERONTOLOGY AND CARE OF THE ELDERLY

Course Code: HSCD4ET01

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To make the students aware of the issues facing the elderly in India
- To know the theoretical frame work in the study of ageing
- To impart necessary skills for making effective interventions for care of elderly.
Course Outline

Module 1: Introduction

Concept of Gerontology, Demographic Trends in Ageing: Global Ageing, Demographic Trends in ageing in India with special reference to Kerala

Module 2: Theories of Ageing

Disengagement theory, Activity theory, Selective theory and Continuity theory

Module 3: Ageing Process

Physical, Psychological, Social, Economic and Spiritual aspects of ageing

Module 4: Issues and Challenges of Ageing with special reference to India.

Economic dependence /Poverty, Elderly in Rural/Urban areas, Abuse, Neglect, Abandonment, Physical, Health, and sensory problems, Lack of civic amenities-transportation, housing, recreation, Crimes against elderly, Retirement and related issues, Death and Bereavement.

Module 5: Dementia and related disorders in elderly

Prevalence in India, Risk factors, Signs and Symptoms, Awareness; Programmes, Support for the care givers, Intervention strategies.

Module 6: Families and Living arrangements of elderly with special reference to India.

Institutional Care, Day care Centres, Retirement Communities, Living alone, Living with other family members, Home Nursing (hiring in-home care givers), respite care.

Module 7: Governmental and Non-Governmental support for elderly in India

National Old Age Pension Scheme (NOAPS), 1995, National Policy for Older Persons, 1999, Non-governmental Agencies working in favour of the aged, helpage India. Legislations in support of elderly: Maintenance of Parents and Senior Citizen Act2007

Module 8: Empowerment of the Elderly/Successful Ageing


Related Experiences

1. Discuss and list the range of services available for elderly in the community

2. Interact with elderly people to understand the physical, emotional and social concerns.

3. Visit any institution working for the welfare of elderly in the community.
References

- www.Gerontologyindia.com
- Journal of Geriatric Psychiatry and Neurology

GUIDANCE AND COUNSELLING

Course Code: HSCD4ET02

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To enable students to understand the significance of guidance and counselling in the current scenario
- To develop awareness among the students about the methods of dealing with the emotional problems of children and adults.
- To familiarise students with the theories relating to psycho social issues.

Course Outline

Module 1: Introduction to Guidance and Counselling

Definition and meaning of Guidance and Counselling, Goals of Counselling, Difference between Guidance and Counselling, Significance of Counselling with special reference to Kerala

Module 2: Guidance: Conceptual and Basic Features

Module 3: Fundamentals of Counselling

The counselling Process: Stages, Variables affecting the counselling process, Counsellee features; Types of Counselling: Crisis, Facilitative, Preventive, and Developmental Qualities and skills of a Counsellor

Module 4: Theories/Approaches to Counselling and Therapy

Psychoanalytic Therapy: Freudís psychoanalysis; Client-Centered Therapy: Carl Rogerís Non-directive therapy; Behaviour therapy: Systematic desensitization, Aversive Conditioning, Behaviour modification. Cognitive Behaviour therapy (CBT), Rational-Emotive Behaviour therapy (REBT), Transactional Analysis; Special and Innovative approaches with children: Play therapy, Music therapy, Art therapy, Bibliotherapy, Horticultural therapy, Yoga, meditation etc.

Module 5: Child Guidance Clinics

Organization of Child Guidance Clinics, Infrastructure, Staff, Procedure, and Documentation

Related Experiences

1. Interaction with practicing counsellors and therapists through visits to schools, clinics, womenís rehabilitation centres and other institutions.

2. Learn about the common problems for which counselling is sought and write a report.

3. Role play a counselling situation

References

• Shankar, L (1993) Guidance: Educational, Vocational, Personal and Social, Enkay Pub ltd


WOMENíS STUDIES

Course Code: HSCD4ET03

Teaching hours: 5hrs/week

Credit: 4

Objectives

1. To create an awareness among the students about the status of women in India.
2. To familiarize with the issues and problems of women
3. To motivate students to work for the betterment of women

Course Outline

Module 1: Introduction


Module 2: Status of women in India

Demographic profile of women with reference to health, education, employment, social and political aspects. Gender bias. The Indian girl child. The changing role of women.

Module 3: Special Issues and Problems


Module 4: Women in workforce

Concept of work- productive and non productive work. Use value and market value. Women in organized and unorganized sectors, Special problems and needs. Gender division
of work. Micro enterprises and women entrepreneurship development. NGOs and women development. Globalization and impact on womenís employment. Role of SHGs.

**Module 5: Women and Law**


**Module 6: Developmental Programmes for Women**

Services for protection, care and rehabilitation, Poverty alleviation and economic empowerment, Nutrition and health care programmes, Education and legal literacy. National and State Commissions for women.

**Related experiences**

1. Visit to an institution providing care and support to needy women
2. Debate on the pros and cons of dowry
3. Interact with women in a self-help group and understand its functioning.
4. Visit to any unit for women in a self-help group and understand its functioning
5. Visit to any unit of women entrepreneurs.
6. Discuss the procedure for availing help by women in distress.

**References**

- Ashok S Kolaskaer and Motilal Dash (2012), Women and Society ;The road to change Oxford University press.
- Charu Gupta (2012),Gendering Colonial India,Reforms,Print, Caste and Communalism,Orient blackswan
- Mary E. John ed.( 2008), Women's Studies in India: A Reader, New Delhi: Penguin Books India,
ENTREPRENEURSHIP MANAGEMENT

Course Code: HSCD4ET04

Teaching hours: 4hrs/week

Credit: 4

Objectives

- To gain an understanding of the various aspects and types of business organizations
- To impart information on the various sources of finance and also on the process of setting up small enterprise.
- To enable students to understand the relevance of entrepreneurship and to develop effective entrepreneurship skills among students.

Course Outline

Module 1: Entrepreneurship and its development

Entrepreneurship-Definition, types, characteristics, Entrepreneurship development for employment generation- importance, Factors affecting entrepreneurial growth- economic, social, cultural and personal factors.

Module 2: Women and Employment

Women employment in India - categories of employment, problems related to employment, Unemployment in India- causes & remedies, Importance of self employment.

Module 3: Forms of Entrepreneurial Organizations

Scope and Objectives of modern business, Essentials of successful business, Sole proprietorship, Partnership, Joint Stock company, State enterprises and Co-operative societies ñ meaning, merits and demerits of each, Types of important documents of companies

Module 4: Entrepreneurship and Institutional support

Objectives, functions and assistance given by SIDCO, SIDO, SFCK, IDBI, SIDBI, KSIDC, KSWDC, KITCO, SEWA, SGSY (Swarnjayanti Gram Swarozgar Yojana), JGSY (Jawahar Gram Samridhi Yojana) , Agencies promoting entrepreneurship ñ role of NSIC (National Small Industry Corporation) , Small Industry Extension Training Institute (SIETI), Central Small Industry Organisation (CSIO) DCK, DRDA, KVIC (Khadi and Village Industry Commission) and other voluntary organizations, Small Scale Industries (SSI) - Definition, types, procedure for setting a small scale unit, training facilities for small scale unit, Problems faced by emerging small scale units and remedies
Module 5: Source of Finance

Importance of finance- sources of company finance - long term and short term, Role of banks and other financial institutions, Basics of Costs and Cost Control, Project Appraisal

Module 6: Book keeping & Accounting


Module 7: Marketing & Sales promotion

Marketing- Marketing mix, Functions, types, Advertising & Salesmanship, Public relations, Personal selling, Interpersonal skills, factors affecting the entrepreneurís skill

Related Experience:

1. Visits to agencies involved in development of entrepreneurship
2. Preparation of a project proposal by
   - Selection of a trade
   - Visits to 1 or 2 units related to trade
   - Study the infrastructural requirements
   - Records to be maintained
   - Procedure for obtaining loan

REFERENCES

• Bhattacharyya, S.K Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi
• Bhushan, Business Organization, Sultan Chand & Sons, New Delhi, (1985)
• Gupta C.B. (Dr.), Office Organization and Management, Sultan Chand & Sons, New Delhi, (1999)
• Kanikar Entrepreneurs and Micro Enterprises in Rural India, New Age International Publishers Ltd., New Delhi (1995)

• Khanka S.S, Entrepreneurial Development, S.Chand & Co.Ltd., New Delhi, (1999)

• Ramesh Babu’s Handbook of Entrepreneurs, Business Intelligence Publications


• Shukla M.C., Business Organisation, S. Chand & Co. New Delhi, (1970)

GUIDANCE AND COUNSELLING/REMEDIAL TEACHING PRACTICALS

Course Code: HSCD4EP05
Teaching hours: 6hrs/week
Credit: 3

ELECTIVE

Objectives

• To gain an understanding of the emotional problems confronting children and adults.

• To develop the skills of the students in offering guidance and counselling for children and parents/adults.

• To develop skills in organizing programmes related to preventive / facilitative / developmental counselling.

Course Outline

Module 1

Compile a list of the guidance and counselling services available in the local area / town and discuss the adequacy of the services

Module 2

Make a visit to a Child Guidance Centre / Counselling centre and make a report on its functioning.

Module 3

Discuss with counsellors on the commonly encountered problems among children and the common techniques of management and report.
Module 4
Internship ñ Participate in a counselling centre and observe the counselling process / participate in the activities of a remedial centre or Resource Centre for two weeks and report.

Module 5
Organize an educational programme on the causes/management strategies/preventive measures of behaviour disorders/emotional problems among children and report.

Module 6
Interview parents of children with behavior/conduct disorders/academic difficulties or interview adults with marital problems/divorced persons and report their problems.

Viva

DEVELOPMENTAL COMMUNICATION AND EXTENSION

Course Code:  HSCD4ET01
Teaching hours:  4hrs/week
Credit:4

Objectives

- To make the students understand the various facets of communication and its significance for extension and national development.
- To make the students understand different forms of media and ways to promote them
- To help students to learn to handle different.
- To help students to understand the principles of administration, co-ordination and Supervision in Extension.
- To become aware of the administrative structure of the Rural Development Programme in India.
- To understand basic elements in extension management.

Course Outline

Module 1:  Development communication

Definition and understanding of development communication, Non development communication vs development communication, Development problems of developing countries; Objectives of development communication, Communication for human development; Planning development communication
Promotion of Development Communication; Government efforts: Role of Government agencies like Akashwani, DAVP, IEC Bureau, Resource Centers, IIMC, Songs and Drama Division etc. Non-Government effort: Role of NGOs in development. Community Effort: Role of Agencies of local self Government and local organization. Recent advances.

Module 2: Extension Administration and Supervision


Module 3: Presentation skills

Use of visuals during presentation, Roles of visuals in communication; Clarity of message and image, Designing artwork in visuals, Oral presentation techniques, Organising message, Stage craft and delivery, Principles for effective delivery

Module 4: Facilitation skills development

Role of the facilitator, Balancing multiple responsibilities, Range of communication techniques, Building confidence, Addressing difficult behaviour; Techniques of facilitation: Asking Open-ended questions, Balancing the discussion; Reflective listening, Drawing people out ñ encouragement; Sequencing / stacking / tracking, Intentional silence; Reframing, Finding common ground

Module 5: Information & Communication Technology (ICT) and Rural Development

Introduction to ICT education, Various ICT tools and their uses, Roles of ICT in rural development, Research and development in ICT, Management of ICT, ICT as an alternative extension approach

Module 6: Mass media

Introduction to mass media, Types and roles of broadcast media, Types and roles of print media, Types and roles of screen media, Mass media in extension, Media and communication in Ministry of Agriculture

References:


**HOSPITALITY ADMINISTRATION**

**Course Code:** HSCD4ET02

**Teaching hours:** 4hrs/week

**Credit:** 4

**Objectives**

- To develop skill in managing accommodation department and dealing with the procedures
- To know the organizational and procedural aspects of front office and housekeeping departments of hospitality institutions
- To identify the need and use of different tools and equipments belonging to the two departments
- To develop social skills and effective communication in dealing with guests, colleagues and management

**Course Outline**

**Module 1: Introduction to hospitality and hotel industry and tourism**

Classification of hotels and other hospitality Institutions, importance of tourism for hospitality industry, types of operations, Hostess training
Module 2: Organisation of departments
Departmental classifications, numbering of rooms and food plans, room types and rates, Tariff structure, rate policies

Module 3: Front Office and Guest reservation
Importance of the department, Layout and planning, Staffing pattern and duties, Basic Terminology used in the department, Qualities and etiquettes of front office staff

Module 4: Basic Reservation system
VIP Procedures, Computerized reservation forecasting, Cancellation, penalty, Arrival and departure, C-Form, procedures of check-in and check-out, Key handling and control, Luggage handling, Book Keeping and Record Maintenance, Lobby management, Public relations, Co-ordination and communication of front office with other departments

Module 5: Records for control
Importance of reports, the front desk log, maintaining room status, maintaining account balance, monitoring availability, electronic front office, electronic point sale system, room status indicator, accounting equipment

Module 6: Housekeeping
Importance and need of Housekeeping Department, Organisation and duties, Hierarchy and Job descriptions, Layout, Inter-departmental coordination and communication, Interrelationship with Personnel Department: Importance and functions, Manpower planning, Recruitment, training and appraisals

Module 7: Linen room and Laundry management
Classification and selection of linen, par stock determination, storage, distribution and control of linen and uniforms, condemnation and reuse, bed making and turning down, Layout and physical attributes of Linen room and storage and laundry, Staff and duties, wet and dry washing, finishing processes and stain removal

Module 8: Upkeep, Sanitation and hygiene
Cleaning Guest rooms and service areas, Rules, procedures and principles, Methods of Cleaning of various materials, types of room cleaning- daily, weekly, spring cleaning etc. Equipments, cleaning agents and maidis trolley, Sterilization, disinfection, Control of infestation, Integrated Waste Management (IWM), Room inspection checklist, repair and maintenance, Refrigeration and A/C, Public address system and music

Module 9: Aesthetic treatments of Interior environment
Interior decoration in Commercial / hospitality areas, window treatments, Selection and care of Furniture, furnishings, lighting and accessories, Floral decorations and table setting and layout, Indoor gardens and Landscaping
Module 10: Safety Education and First Aid

For shock, fainting, stroke, burns, fits, heart attack, etc. Safety measures, fire preventions and control, accident prevention, security measures

Related Experience:

- Visit to front office and housekeeping departments of various institutions
- Role play of guest handling / First Aid / Hostess duties / etiquettes
- Practical Bed making / Table setting / Flower Arrangement / Curtain Styles
- Internship in Housekeeping/ Front Office at any Institution/ Preparation of modules for training housekeeping attendants

Reference:

- Express Health Care Management
- Ismail A., Front Office ñOperations and Management, Thomson and Delmar Publishers, Canada
- Raghubalan and Smritee Raghubalan, Hotel Housekeeping- Operations and Management, Oxford University Press, New Delhi
DEVELOPMENT OF THE SELF

Course Code: HSCD4ET03
Teaching hours: 4hrs/week
Credit: 4

Objectives

• To initiate self-enquiry and introspection;
• To discuss different aspects of the self and its development;
• To contextualize the self in culture.

Course Outline

Module 1: Definitions of development and self
Definitions of self constructs: Self-esteem, self-concept, Self-confidence: Self-efficacy. Developmental patterns in the development of self-constructs; Historical conceptions of "self"

Module 2: Approaches to self

Module 3: The self in the life-span
Significance of birth; role of childhood experiences; changing roles and responsibilities. With age; the sense of self at adolescence; Cultural variations, achieving selfhood at adulthood

Module 4: The individual and the context

Module 5: Gender identity and the self
Biological, psychological and cultural aspects of being male and female, stereotypes, beliefs and gender discrimination. Gender identity and gender role, Transgender
Module 6: Role of spirituality and religion in the development of the self.

Experiences, values, beliefs and attitudes in society.

Module 7: Self - Improvement techniques.

Fostering psycho-social competence through Life Skills Education, Relaxation Techniques

Related Experiences

1. Read an important biography and analyze the events and factors that contributed to the development of the self in the individual.

2. Write an autobiography highlighting the development of the self through different stages.

3. Conduct a case study of an individual and profile the development of the self in a cultural and social context.

References


DEVELOPMENT OF CREATIVITY

Course Code: HSCD4ET04

Teaching hours: 4hrs/week

Credit: 4

Objectives

- To understand the relevance and scope of studying creativity.
- To discuss the concept of creativity and various approaches to its study.
- To understand the role of the individual, the context and socialization in developing creativity.
• To become familiar with psychometric measurement and alternate ways of assessing creativity.

Course Outline

Module 1: Definition and concept of creativity
Types and degree of creativity (everyday creativity and eminent creativity). Domains, insight and problem solving as related to creativity. Factors that affect creativity.

Module 2: Relevance and scope of the study of creativity
Relation to Academic Achievement; Learning and Creativity.

Module 3: Approaches to the study of creativity
Mystical approach (divine gift), Psychology-dynamical approach (Freud), Psychometric approach (Guilford & Torrance), Cognitive approach (Weisberg), Social personality approach (McKinnon), Confluence approach (Gardner).

Module 4: The role of the individual
Cognition, abilities, interests, attitude, motivation, intelligence, knowledge, skills, beliefs, values and cognitive styles.

Module 5: Creativity, Intelligence and Personality
Relationship between creativity and intelligence; Personality Bases for Creativity.

Module 6: Enhancing creativity

Module 7: Assessment of creativity

References


Journals

- Creative Research Journal
- Journal of Creative Behaviour

PUBLIC HEALTH NUTRITION

Course Code: HSCD4ET5

Teaching hours: 4hrs/week

Credit: 4

Objectives

• To develop a holistic knowledge base and understanding of the nature of nutritional problems and their prevention and control for the disadvantaged and upper socioeconomic strata in society.

• To understand the causes/determinants and consequences of nutritional problems in society.

• To be familiar with various approaches to nutrition and health interventions programmes and policies.

Course Outline

Module 1: Food and Nutrition Situation in India

Hunger in India, India state Hunger Index(ISHI), Food and Nutrition security, production and availability of foods in India, consumption pattern, trends in nutrient intake and nutritional status

Module 2: Principles of epidemiology and epidemiological methods

Introduction to epidemiology, aims, classifying epidemiological study methods, Importance of nutrition epidemiology in developing countries nutrition epidemiology and public health nutrition.
Module 3: Assessment of nutritional status in community setting


Module 4: Epidemiology of Nutritional disorders

Prevalence, Aetiology, Consequences and treatment of-PEM-Clinical syndromes, prevention of malnutrition, managing PEM; Vitamin A Deficiency- Consequences,epidemiology,aetiological factors, intervention strategies for preventing Vitamin A deficiency disorders(VADD); Iron Deficiency Anaemia-Epidemiology,Prevalence,aetiological consequences,approaches for prevention and control of anaemia, National Nutritional Anaemia Control Programme. Iodine Deficiency Disorders- Epidemiology,aetiological factors,consequences of IDD,IDD as a public health problem,elimination of IDD-An International focus,National Iodine Deficiency Disorders Control Programme Of India; Zinc Deficiency-Epidemiology,public health significance,clinical manifestations of zinc deficiency,Zinc supplementation in pregnancy.Flourosis

Module 5: Organisations and Programmes in the field of nutrition monitoring and Interventions

Brief outline of NFHS,NNMB,NNP,ICDS

Module 6: Nutrition Education

Definition, Significance, Design and implementation of NHE Programme Receiver, Communicator, Message Channel, Theories of Nutrition Education, Evaluation-Purpose and Types of evaluation.

Module 7: Food Fortification

Technical considerations, technology for food fortification, fortificants, planning food fortification intervention, fortification of selected food items

Module 8:Nutrition related non communicable chronic disorders

Prevalence at global and national level, Cardiovascular disease, Hypertension, obesity, Diabetes mellitus, cancer. Risk factors for Non Communicable Diseases-Community based programmes for primary prevention, Health education and role of mass media, secondary and tertiary prevention.
Module 9: Research methods in Public Health Nutrition

Introduction, Designing a research study- critical factors, hypothesis testing and P value, Research design, Sampling, Analysis and Softwares.

References

Public Health Nutrition in Developing Countries Edited by Sheila Chander Vir Woodhead Publishing India. Part I & II.

Nutrient Requirements and Recommended Dietary allowances for Indians A report of the expert group of the Indian Council of Medical Research ICMR 2010.

MODEL QUESTIONS
HSCDICT01
ADVANCED STUDY IN CHILD DEVELOPMENT

Maximum: 30 Weightage
Time: 3 hrs

PART ñ A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1.

1. What are teratogens?
2. What is genetic counselling? Who needs it?
3. At risk babies
4. Genes
5. Moro Reflex
6. Bilingualism
7. List the motor milestones from 0 to 1 year
8. List any four characteristics of children’s emotions.

(5x1 = 5 weightage)

PART ñ B

II. Answer any FIVE questions. Each answer should not exceed two pages. Each question carries a weightage of 2.
9. Explain any four basic themes in Child Development.
10. What is the significance of play for a preschooler?
11. Trace the cognitive development of a child during the late childhood years.
12. Explain the perceptual capacities of an infant.
13. Explain the patterns of genetic inheritance.
14. Trace the language development of a child during the early childhood period.
15. Write briefly on the intervention programmes for at risk babies.
16. Why prepositional thought is important in adolescence

(5x2 = 10 weightage)

PART ñ C

III. Answer any THREE questions. Each answer should not exceed three pages. Each question carries a weightage of 5.

17. Explain the major prenatal screening and diagnostic techniques.
18. What is attachment? Briefly explain the types of attachment and the factors influencing attachment formation in infants.
19. What is temperament? Briefly explain the temperamental characteristics of infant.
20. Explain the sensory capabilities of a neonate.
21. What are the trends in contemporary research in Child Development?
22. Examine the nature-nurture controversy.

(3x5 = 15 weightage)
HSCD1CT02

EARLY CHILDHOOD CARE AND EDUCATION

Maximum : 30 Weightage

Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Bring out the contribution of ICDS towards the importance of ECCE.
2. What is the role of music in preschool education?
3. What are the limitations of Tagoreís views on ECCE?
4. Give a few examples of teaching science concepts to children.
5. Differentiate between long term and short term planning.
6. List down the objectives of ICCW favouring ECCE.
7. How will you celebrate Gandhi Jayanthi in a preschool?
8. What is the role of the assistant teacher in a preschool?

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Explain how Montessori schools are different from Frobelís idea of preschool education.
10. What are the records to be maintained in a preschool?
11. Explain the principles to be followed in programme planning.
12. Develop a theme chart for a week on the topic ëAnimalsí.
13. How can you teach mathematics through play way method to preschoolers?
14. What type of equipment would be suitable for a rural preschool?
15. Chalk out a budget to run a preschool for a year
16. Explain on the importance of parental awareness programme in a preschool.

(5x2=10 weightage)

PART ñC

III Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Elaborate on the contribution made by Mahatma Gandhi and Aurobindo towards Early Childhood Care and Education.
18. Explain the contribution of national agencies in the development of ECCE.
19. Give an account on the different types of preschool education in India.
20. Who are the personnel in a preschool? Explain their roles and responsibilities.
21. Justify art and craft as highly stimulating activities in a preschool. Explain the different types of art and craft activities.
22. What are the factors to be considered while planning to start a preschool? Explain in detail.

(3x5=15 weightage)
HSCD1CT03

ADOLESCENCE: DEVELOPMENT AND CHALLENGES

Maximum: 30 Weightage

Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What do you understand by reflective judgement?
2. What is critical thinking?
3. Give a brief note on the intellectual development of adolescents.
4. List down the secondary sexual characteristics seen in girls and boys during adolescence.
5. What is the importance of self concept during adolescence.
7. Explain identity crisis.
8. What is peer pressure? (5x1= 5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

10. Explain the influence of electronic media and culture on adolescence.
11. How do the physical changes affect adolescents?
12. What are eating disorders? Why is it prominent during adolescence?
13. Explain the Maslowis hierarchy of needs.
14. What are the governmental programmers available for education of adolescents?
15. Elaborate on the health issues affecting adolescents.
16. Give an account on sexually transmitted diseases. (5x2=10 weightage)

PART ñC

Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain in detail the impact of bodily changes on the mental make up of adolescents.
18. Elaborate on (i) parent adolescent relationship (ii) conflict with authority during adolescence.
20. Adolescence is a very vulnerable period wherein so many mental health issues creep in. Explain any two such issues.
21. Explain the formation of identity during adolescence. Also add a short note on the importance of self esteem.
22. Elaborate the factors influencing academic achievement. (3x5=15 weightage)
PART A

I. Answer any 5 questions not exceeding one page. Each question carries a weightage of 1.

1. Growth monitoring
2. Eating disorders of adolescents
3. Baby friendly hospital initiative
4. Protein Energy Malnutrition
5. Let down reflex
6. Ideal weight gain in pregnancy
7. Nutrition in Cold/Polar environments
8. Malnutrition and mental development

(5x1 = 5 weightage)

PART B

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.

9. Elaborate on human milk composition and its benefits
10. Justify the increased nutritional requirements in pregnancy.
11. Elaborate effects of ageing on food and nutrient intake.
12. Elaborate the methods of studying human nutritional requirements.
13. Outline the principles of computation of RDA for Energy requirements of Indians.
14. Bring out the importance of good weaning. Add a note on ARF.
15. How is RDA for Iron arrived at for various age groups
16. Elaborate on the nutritional requirements and the dietary modifications during lactation.

(5x2 = 10 weightage)

PART C

III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5.

17. Discuss the physiology and endocrinology of lactation
18. Explain the nutritional care of pre term infants
20. Explain foetal and maternal consequences of under nutrition.
21. Give an account of nutrition during space travel and type of foods used.
22. Explain the physiological changes at high altitudes and the principles of high altitude nutrition.

(3x5 = 15 weightage)
HSCD2CT06

EDUCATION OF CHILDREN WITH SPECIAL NEEDS I

Maximum: 30 Weightage

Time: 3 hrs

PART A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define the term Exceptional Children. How does it differ from the terms disabled and handicapped?
2. Briefly write about Braille.
3. List any four causes of Learning Disability.
4. What is ADHD?
5. What is Rh incompatibility?
6. What is dyslexia?
7. Explain what is meant by adaptive behaviour. How can it be assessed?
8. IQ test.

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. How can mentally challenged individuals be classified?
11. List any four Rights of the disabled.
12. List any six causative factors of visual impairments.
13. Explain the objectives of special education.
14. What advice would you give regarding post natal prevention of disabilities to a group of young mothers?
15. What is vocational rehabilitation?
16. List the causes of ADHD.

(5x2=10 weightage)

PART C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Briefly explain the role and functioning of the Rehabilitation Council of India.
18. What are the prenatal, perinatal and post natal causes of mental retardation?
19. What are the educational strategies that can be adopted to teach children with ADHD?
20. How can exceptional children be classified?
22. Bring out the importance of early intervention and special education to the visually challenged children.

(3x5=15 weightage)
PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

2. Child-sex ratio.
3. List the Governmental programmes for the benefit of children.
4. Explain the law on female foeticide.
5. Write a short note on the adoption guidelines in India.
6. Write a note on the Rights of children in line with UNCRC.
7. Services for street children in your community.
8. Rehabilitation of children of prostitutes.

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. How does the State deal with children who come in conflict with the law?
10. Discuss the National Plan of Action for Children, 2005?
11. Explain the Counselling and Guidance services provided by the State Child Line Foundation?
12. What is the significance of nutrition programmes for adolescent girls?
13. Explain Kishori Shakti Yogana?
14. Explain the need for services for children affected with HIV/AIDS?
15. Explain the problems of street children.
16. Write a short note on the extent of child sex tourism in India and the steps taken by the government to combat the problem?

(5x2=10 weightage)

PART C

Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss the prevalence of child abuse in Kerala as reported by media.
18. Give an account on mental health issues facing today’s adolescents.
19. Explain the strategies to promote legal awareness among public on children’s rights.
20. Write on the role of non-governmental programmes for the welfare of children using a few examples.
21. Write a detailed account on any one institution functioning for the welfare of children which you have visited.
22. How are achievement tests used in schools to assess the academic performance in children?

(3x5=15 weightage)
MENTAL HEALTH IN DEVELOPMENTAL PERSPECTIVE

Maximum: 30 Weightage

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define mental health.
2. What is meant by attachment?
3. What is schizophrenia?
4. Peer pressure.
5. Substance abuse.
6. Drug therapy.
7. Phobia.
8. Self esteem.

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between neurosis and psychosis.
10. Enumerate the causes of suicide among adolescents.
11. Explain the types of attachment among infants.
12. Explain anxiety neurosis.
13. What guidance can be given to parents to prevent the incidence of sexual abuse among children?
14. How can substance abuse among adults be dealt with?
15. Explain the National Mental Health Policy of India.
16. What guidance can be given to teachers to prevent maladjustment of students in school?

(5x2=10 weightage)

PART-C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Briefly explain the physiological effects of stress on an individual.
18. What are the factors affecting attachment of an infant to its care taker?
19. What guidance can be provided to parents to deal effectively with the psychological problems of adolescents?
20. What programmes are available in your community to deal with the mental health issues of the people?
21. What according to you are the reasons for the increasing levels of stress among people?
22. Explain the general therapeutic measures that can be adopted in dealing with emotional disturbances.

(3x5=15 weightage)
HSCD2CT09

RESEARCH METHODS AND STATISTICS

Maximum: 30 Weightage

Time: 3 hrs

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define intervening variables
2. What are partition values? Give the different partition values
3. Define a standard normal distribution
4. What is standard error?
5. What is a scatter diagram?
6. Write on the types of questionnaires?
7. What is sampling error?
8. Pictograph

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between absolute and relative measures of dispersion
10. Briefly explain the types of research
11. Differentiate between interview and observation
12. Explain the advantages and limitations of questionnaires as a research tool.
13. Calculate the correlation coefficient from the following data sheet:

   \[ N = 444 \quad N Y = 443 \quad N X^2 = 19806 \quad N Y^2 = 20065 \quad N XY = 19711 \quad n = 10 \]

14. Define & variable & discuss the types of variables
15. What are the properties of normal distribution?
16. The following data was obtained in an investigation about the effect of vaccination for hepatitis. Examine whether vaccination is effective in preventing hepatitis.

<table>
<thead>
<tr>
<th>Vaccination Status</th>
<th>Vaccinated</th>
<th>Not Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attacked by hepatitis</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Not attacked by hepatitis</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

(5x2=10 weightage)
PART ÍC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Interview. Construct an interview schedule on any relevant topic based on your interest.

18. The BMI of people follows a normal distribution with mean 20 and standard deviation

3. Find probability that a person selected at random is having BMI

   a) Between 16 and 23          b) Above 25          c) Below 20

19. Define sample. Briefly explain different types of sampling.

20. Discuss briefly on any two tools used in research

21. Compare the merits and demerits of mean, median and mode.

22. The following are the marks of 10 students before and after training. Test whether the training is effective.

Mark before training:  91   95   81   83   76   88   89   97   88   92

Mark after training:  89  101   85   88   81   92   92   99   97   87

(3x5=15 weightage)

HSCD3CT11

THEORIES OF CHILD BEHAVIOUR AND DEVELOPMENT

Maximum : 30 Weightage        Time: 3 hrs

PART ÍA

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What are the functions of theories?

2. Bring out the importance of early life experiences in later development according to Freudís theory.

3. List the stages of psycho sexual development according to Freud.

4. How does Eriksonís theory explain Identity formation in adolescence?

5. What are the different stages in Piagetís theory?

6. Explain Meso system?
7. What is imprinting?
8. Explain Behaviour modification.  

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. How is the nature-nurture controversy explained through Vygotskyís socio-cultural theory?
10. Explain the Bronfenbrennerís Ecological system theory.
11. Discuss the strengths and limitations of Piagetís theory.
12. What is the significance of Social-learning theory.
13. Explain the classical conditioning experiment of Pavlov.
14. Explain the Nativistic view of language development.
15. What is developmental Cognitive Neuroscience?
16. How is Lorenz explaining the significance of Critical period in his study?  

(5x2=10 weightage)

PART ñC

Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Write on the contributions and limitations of Behaviourism and Social Learning Theory
18. How does ethological theory explain the sensitive period concept?
19. Explain any one theory, citing the role of it in policy making in Child Development?
20. How does Bowlbyís theory explain the development of attachment in infants?
21. How is information processing theory explaining cognitive development?
22. What are the contributions and limitations of Psychoanalytic perspective by Freud?  

(3x5=15 weightage)

HSCD3CT12

METHODS AND TECHNIQUES OF CHILD STUDY

Maximum : 30 Weightage Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What is Word Association Test?
2. Bring out the importance of assessing infants.
3. What are the different types of rating scales?
4. Explain observation as a method of child study
6. What is fear checklist?
7. How is interview technique used to study children?
8. Measurement of the mid upper arm circumference in children?

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Explain Rorschach’s Ink Blot Test.
10. How is the Trivandrum Developmental Screening Test used to assess motor development in children?
11. Explain the use of Minnesota Multipurpose Personality Inventory in assessing personality.
12. What is the significance of studying children?
13. Explain the Vineland Social Maturity Scale.
14. Explain the need and implication of developmental assessment.
15. Bring out the use of Raven Progressive Matrices in assessing the cognitive abilities of children.
16. Write a short note on (i) attitude scales (ii) aptitude scales.

(5x2=10 weightage)

PART ëC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the various anthropometric measures used to assess children.
18. Give an account on (i) ethnography (ii) social survey (iii) clinical method.
19. Explain any two tests used to assess motor development in children.
20. What are projective techniques? Explain any three.
21. What are inventories? Explain how Catell 16 PF is used to assess personality.
22. How are achievement tests used in schools to assess the academic performance in children?

(3x5=15 weightage)

HSCD3CT13

CHILDREN WITH SPECIAL NEEDS ë II

Maximum: 30 Weightage

PART ë A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define the term ëJuvenile delinquencyî.
2. What is Phobia ?
3. Explain ëEnrichmentî as a method of educating the gifted.
4. What is Epilepsy ?
5. What is auditory training?
6. What is meant by Articulation disorders è?
7. Who are the gifted children?
8. Explain the functioning of the juvenile court. (5x1=5 weightage)

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. How can physical and health impairments be classified?
10. What are the causes of cerebral palsy?
11. What measures can be adopted to prevent hearing impairments in children?
12. Explain how parents become responsible for delinquency in their children.
13. What is speech therapy?
14. Explain the psychological problems that might arise in gifted children.
15. Classify speech disorders and briefly explain them.
16. What are the causes of childhood schizophrenia? (5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. What is autism? What are the etiological factors of autism?
18. Explain the need for vocational counselling for academically gifted children.
19. How can parents nurture creativity in their children?
20. What are the methods of preventing juvenile delinquency?
21. What are the methods of educating the hearing impaired?
22. What are the causes of speech disorders? (3x5=15 weightage)

HSCD3CT14

SCIENTIFIC WRITING AND PROJECT MANAGEMENT

Maximum: 30 Weightage  Time: 3 hrs

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Objectivity in research.
2. Budgeting a project.
3. Executive summary.
4. Importance of bibliography.
5. Pilot study.
6. Importance of setting a time frame.
7. Presentation of a project proposal. 
8. Foot notes. 

\[ \text{(5x1=5 weightage)} \]

**PART B**

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Explain the parts of a table. 
10. What are the objectives of classification of data? 
11. What are the important points to be mentioned while writing the introduction of a dissertation? 
12. Explain the importance of the graphical presentation of data. Briefly mention its limitations. 
13. How do you write a review article? 
14. What is the significance of reviewing the literature? 
15. Briefly explain the principles of report writing. 
16. What are the general rules of tabulation? 

\[ \text{(5x2=10 weightage)} \]

**PART C**

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the following, citing their advantages, limitations and areas of application
   (a) Bar diagram 
   (b) Pie graph 
18. Choose a research topic related to your field of study and write a research proposal for securing a university grant. 
20. What are the salient points to be borne in mind while writing research articles for journals? 
21. What are the points to be borne in mind while explaining the results of a study and discussing it. 
22. Briefly explain how to formulate outlines. Add a note on the kinds of outlines while reporting a research finding. 

\[ \text{(3x5=15 weightage)} \]

**HSCD4ET01**

**GERONTOLOGY AND CARE OF THE ELDERLY**

Maximum: 30 Weightage 
Time: 3 hrs

**PART ñ A**

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. List the sensory problems of the elderly. 
2. Importance of providing recreational facilities for the elderly. 
3. List the Governmental programmes for the benefit of the elderly. 
4. Write one law protecting the elderly.
5. The need for institutional care for elderly
6. Psychological aspects of ageing.
7. What are the issues faced by elderly living alone?

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Explain any one theory on the ageing process?
10. Discuss the problems faced by elderly in terms of transportation and public amenities?
11. Explain the counselling services available for elderly in your community?
12. Discuss the issues facing elderly in terms of housing?
13. Explain the National Old age Pension scheme.
14. Explain the need for services for caregivers of elderly suffering from dementia and related disorders?
15. Bring out the issues facing elderly in terms of economic empowerment?
16. Write a short note on the use of ICT for the welfare of elderly?

(5x2=10 weightage)

PART ñC

Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss the prevalence of crimes against elderly in Kerala? What remedial measures would you suggest?
18. Give an account on mental health issues facing todayís elderly?
19. Explain the measures to promote awareness among public on the rights of elderly?
20. Discuss the role of non-governmental programmes for the welfare of elderly citing a few examples?
21. Write a detailed account on any one institution functioning for the welfare of children which you have visited.
22. Discuss the problems ageing with reference to physical Psychological and social factors?

(3x5=15 weightage)

HSCD4ET02

GUIDANCE AND COUNSELLING

Maximum: 30 Weightage
Time: 3 hrs

PART ñ A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Differentiate between guidance and counselling
2. What is preventive counselling?
3. Explain the developmental function of guidance.
4. State the importance of crisis intervention counselling.
5. Explain horticulture therapy.
6. What is meant by systematic desensitization?
7. State any four governing principles of guidance.
8. Briefly explain aversive conditioning.

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

10. What is Transactional Analysis?
12. Explain the importance of art therapy in treating children.
13. List the common causes of stress among adults.
14. Why is educational counselling important in the current scenario?
15. Explain any four variables affecting the counselling process.
16. What are the qualities and skills required by a counsellor?

(5x2=10 weightage)

PART ðC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the Rational ð Emotive Behaviour Therapy.
18. Explain the need for guidance and counselling, with special reference to the Kerala population.
19. Explain any three innovative therapies that can be used with adults.
20. Explain the salient features of the Cognitive Behaviour Therapy.
21. What preventive measures can be adopted to reduce mental health problems in the community?
22. Enumerate the Innovative approaches with children in counselling therapy

(3x5=15 weightage)

HSCD4ET03

WOMENiS STUDIES

Time: 3 hours Maximum -30 Weightage

PART ðA

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What are the legislations available to counteract domestic violence?
2. What do you understand by the term SHG?
3. What are the objectives of women’s studies education?
4. What are the support services for the elderly?
5. Write any one legislative measure available to check immoral traffic?
6. Write a note on child marriage?
7. What is the role of the State commission for women?
8. What do you mean by the term infanticide?

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss the negative aspects of the Dowry system in India?
10. What are the common problems faced by women working in the unorganised sector?
11. Write a note on nutrition programmes for women?
12. Discuss the involvement of women in the political field?
13. What can be done to prevent sexual harassment at the work place?
14. Briefly explain the need for imparting education to all children. What are the provisions offered by the government for the same?
15. Comment on the portrayal of women in the media today?
16. As an educated woman, how can you render support to the women of your community?

(5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Legal Literacy. Bring to light the various legal provisions available with regard to marriage, divorce and dowry?
18. Briefly explain the various services for the protection and care of destitute women?
19. Discuss the need for empowerment. What steps will you take to empower today’s youth?
20. Write a note on the common problems faced by the senior citizens of Kerala?
21. Give an account of the health profile of Indian women? Mention the programmes by the government which focuses on the health of pregnant women?

22. Critically evaluate poverty alleviation programmes by the Government?  

\[ (3x5=15 \text{ weightage}) \]

**HSCD4ET04**  
ENTREPRENEURSHIP MANAGEMENT  
Maximum: 30 Weightage  
Time: 3 hrs

**PART- A**

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1  
1. Define entrepreneurship and its importance.  
2. What is Joint Stock Company?  
3. Explain balance sheet.  
4. What is auditing?  
5. What is salesmanship?  
6. What are the benefits of self employment?  
7. Explain the importance of advertising.  
8. What are the objectives of KITCO?  

\[ (5x1 = 5 \text{ weightage}) \]

**PART ñB**

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.  
9. What are the problems faced by small scale industries? Write a note on its remedies.  
10. What are the accounting methods?  
11. Explain the procedure for registration of a business.  
12. Explain any 5 types of enterprises.  
13. Explain the contents of a project proposal.  
14. What are the important documents of companies?  
15. What are the factors affecting the entrepreneurís skill?  
16 what are the objectives of modern business?  

\[ (5x2 = 10 \text{ weightage}) \]

**PART ñC**

Answer any three questions not exceeding three pages. Each question carries a weightage of 5.  
17. What is marketing? What are the different types of marketing techniques? Explain its merits and demerits.  
18. Explain the concept of small scale industries. What are the steps in setting up a small scale industry?
19. Prepare a project proposal for starting a handicrafts unit in your locality.
20. Explain the objectives, functions, merits and demerits of any two agencies supporting entrepreneurship.
21. What are the factors affecting entrepreneurial growth?
22. What are the causes and remedies of unemployment in India?

(3x5 = 15 weightage)
INTRODUCTION

Post graduate programme in Resource Management and Interior Designing essentially focus on professional development of graduate students to become experts in the area of Resource Management and Interior Designing. The programme offers a comprehensive study of the significance of management in the macro and micro organizations and develops skill in interior and exterior space designing. Its main thrust is to create an understanding of the conceptual, human and scientific aspects of managerial function and space designing.

The main objective of the specialization in Resource Management and Interior Decoration is to train the students to optimize the use of resources to achieve family/institutional goals and improve the quality of life of families and communities. In the context of changing scenario in all facets of society and the socio economic and political change, the curriculum in Resource Management and Interior Designing address to the family and societal problems which ultimately lead to family and community well being which is the crux of development in the national context.

The specific objectives are:-

- To develop knowledge and competency in interior and exterior space designing.
- To acquire teaching and research in academic and other institutions.
- To develop entrepreneurial skills and self employment potential in specific areas of resource management and Interior Designing.
- To acquire skill in planning, organising and evaluating of various events.
- To inculcate eco concerns in resource management among the students

The curriculum is planned to prepare students to be effective managers and to enrich the students with cognitive, affective and practical components and with adequate hands ų on experience in various fields for better career options. Various career options are:-

- Teaching faculty, Project Officers, Research Associates/ Research Assistants
- Interior/exterior designers, Landscape designers
- Front office Managers/ Professional House keepers
- Event managers/ Organizers/ HR Facilitators
- Self employment opportunities

**Eligibility:**

MSc HomeScience ñBranch XB ñ Family Resource management and Interior Decoration.

For admission to the post graduate programme in Resource Management and Interior Designing (Branch X B), the applicant must have passed B.Sc. Family & Community Science / Home Science Model I & II of the Mahatma Gandhi University or any statutory university recognized by the Mahatma Gandhi University with not less than 55% in Part III.

In addition to the existing criteria, Bsc graduates in Food Service Management and Dietetics, Clinical Nutrition and Dietetics are also eligible. Weightage will be given to the above mentioned qualifying degrees. Science graduate with P.G. diploma in Interior Design/Decoration or any BSc degree with open/Add-on-course in Interior Decoration and related Arts are also eligible.
## BRANCH X B

### RESOURCE MANAGEMENT AND INTERIOR DESIGNING

#### COURSE OUTLINE

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>TITLE OF COURSE</th>
<th>TEACHING HOURS/ WEEK</th>
<th>CREDIT</th>
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<td>Consumer Studies Crisis Management and Counseling Hospitality Administration Scientific Writing and Project Formulation Interior Decoration and Creative Arts (Practical)</td>
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Elective 6 ñ Developmental Communication and Extension

Elective 7 ñ Travel and Tourism Management

Elective 8 ñ Public Health Nutrition
SEMESTER ñ 1
ADVANCED RESOURCE MANAGEMENT

Course Code: HSRM1CT01

Teaching hours: 5hrs/week
Credit: 4

Objectives:

• To understand the significance of management in the micro and macro level organization.
• To assess the concept and functions of management.
• To provide an overview of philosophy, values, goals, standards, polices and strategies in management.
• To develop the ability to use, evaluate and improve human resources.

Course Outline

Module 1: Family/ Organization - a system approach.
Family system ñ concepts, functions and features, family Life cycle ñ stages, characteristics and constraints in life cycle management. Organization system ñ concepts, functions and features, organization structure stages, characteristics and constraints in organizational management.

Module 2: Management process, functions and Value orientation
Introduction to management, significance and scope, The evolving discipline of management- classical, behavioural and system approach, Management as a process ñ planning, organizing, coordinating, staffing, controlling and evaluation ; Value orientation and demands in management process - Importance of goals, standards and values, Decision making and resolving conflicts, Management by objectives(MBO), Strategic management, Management skills, Quality control total quality management (TQM).

Context, concept, scope and boundaries. Classification, characteristics of resources (special emphasize to Time, energy, money), Efficiency and effectiveness in use of human resources, Methods and techniques for improving resource use, Human resource planning and succession planning.

Module 4: Human Resource Development
HR development and system training, Recruitment, selection and orientation, Mentoring, performance coaching and appraisal, Building roles and teams, Compensation structure and differentials, reward, incentives and pay structure; Grievance and redressal.
Module 5: Organization Design

Types and factors affecting organizational design, Organization culture; Organization ethics and values, Social responsibilities of organization, Employer ñ Employee relationship

Module 6: Behavioural aspects of human at work and organizational dynamics.

Meaning, concepts and challenges of organization behavior, Job satisfaction and commitment, Personality and behavior, Emotional intelligence, perception and attitudes, Group, role, power and organization dynamics, inter-organizational dynamics, Managing work stress and burn outs

Module 7: Financial Management

Introduction to financial Management, Budgeting and its control, Savings and investments, Tax planning, Inflation and deflation, National and per capita income

Module 8: Event management

Introduction to event management, Event Planning and production, Event leadership and communication, Event Marketing and advertising, Event safety and security, Basic event accounting, Event Evaluation

Related Experience

1. Personality development games- Organization and interpretations
2. An enquiry into managerial practices of selected families under different stages of family life cycle.
3. Locating resources available to rural and urban families.
4. Visit to government / private organizations to survey management practices.

References

- Human resource management, Gupta, S.K and Joshi, R., Kalyani publishers, New Delhi.
ECO CONCERNS IN RESOURCE MANAGEMENT

Course Code: HSRM1CT02

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To enable students to understand the relevance of environment to resource management
- To enable students to know various community resources and their management.
- To inculcate eco concerns in students
- To empower the divinity students to think and act theologically as well as ethically about environmental issues

Course Outline

Module 1: Energy ñ Sources and Classification, Energy Use - The patterns of energy use in the past, present and in the projected future. Environmental/ecological impact of their over exploitation.

Module 2: Energy management ñ Energy crisis meaning, need for combating energy crisis, measures at micro level. Alternate energy sources, their potentialities and environment impacts of their use ; Energy conservation ñ need, ways, end-use energy conservation


Module 4: Water management ñ water related problems ñ quantitative, qualitative, potability of water ñ Home scale, small scale and large scale purification techniques. Water quality and standards. Ways of augmenting water resources, rain water harvesting ñ need and techniques, irrigation ñ drip and sprinkler methods.

Module 5: Waste management ñ Classification of waste, characteristics, the need of a good waste management programme. Different methods of solid waste disposal ñ dumping, composting - vermicomposting, incineration ; Sewage/waste water, methods of treatment
and disposal; Sanitary latrine ñ meaning, types and working; Sullage disposal ñ problems and solutions ñ soak pit, its construction and functioning.

**Module 6: Environment**- Meaning, interrelationship between population and development Micro environment ñ meaning and interaction with focus on family resource management.

**Module 7: Environmental pollution** ñ sources of pollution ñ land, water and air pollutions, causes and effects, global warming, acid rain and ozone layer depletion,

**Module 8: Environmental protection** ñ meaning, need, protection measures ñ environmental protection laws and action at different levels, social movements and organisations, means for sustainable environment

**Related experience**

Visit to any renewable energy centre/ conducting awareness class on environmental pollution/ sustainable development/ attending seminars/ field trips in the related areas

**References:**

HOUSING AND ARCHITECTURE

Course Code: HSRM1CT03

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To provide the students with thorough understanding of the technical aspects of housing
• To equip students with adequate knowledge to design residences giving due consideration to the functional, aesthetic and other factors of design
• To make students understand and apply the principle of planning and designing in housing.
• To make students aware of the Indian housing situation and train them in designing low cost houses for the masses.

Course Outline

Module 1: History of Housing

Evolution of housing, Development of housing in India and abroad, House types for various life styles- independent, twin / row / pent houses apartments / flats, studio apartments, villas, condominiums, Change in style due to influence of services and modern amenities.

Module 2: Factors affecting housing

Changes in housing needs and standards, Influence of Social, cultural, climatic, geographical, political factors and technological developments, Trends in population, occupation, income, mobility, migration, labour, space/ plot and material availability

Module 3: Design History

An overview of Ancient architecture - Precedents in Architecture ñ Egyptian, Greek, Roman, Chinese, Gothic, Renaissance, Indian- Hindu, Jain, Buddhist, Mughal, Colonial, Modern architecture, Post- Modernism, study of Domestic Architecture ñ Traditional built environment in Kerala, Introduction of Vaastu principles

Module 4: Approaches to housing and analysis of housing design

Role of housing in Integrated development- promoting self reliance, labour incentive, assets formation, industrial development; Functional and Systems approach to housing, Housing for good family living, House plans ñ Factors of planning, Selection of site, Preparation of house plans, reading plans
Module 5: Present Housing condition in India

Housing problems- Rural / Urban, Quality / Quantity determinants, evaluation of existing houses, Private and Public- Policies and Schemes, Slums- Causes, Prevention, rehabilitation, transit camps, Material utilization and technological strategies for low cost housing

Module 6: Building Construction

Basic construction Techniques, Building Components / Elements ð Foundation, wall, floor, ceiling, roof, structural openings, vertical transport, Building materials, Finishes- painting, pointing, polishing, structural glazing, Cladding , Services- Electrical layout and wiring, Plumbing and sanitation, Construction Techniques for safety- Damp Proofing, Fire proofing, Termite Proofing, sound proofing, Security features

Module 7: Housing Standards and legislations

Building Codes, Floor Space Index (FSI/FAR), Kerala Building Rules, Points to be considered while buying / building a house, Owning vs. Renting

Module 8: Sustainable Housing

Residential architectural design for various life styles, Basics of Town and country planning, neighbourhood and age friendly communities, New concepts of planning such as solariums, Rain water harvesting, eco-friendly- green housing, geriatric housing ; Research in the field of housing ð Prefabrication, Innovative and indigenous material and techniques

Related Experience

1. Reading and analysis of existing house plans
2. Development of house plans for various income groups
3. Visits to residential building sites / Exhibitions of building materials / market surveys
4. Attending seminars in related field

Reference:

- Arora and Bindra , Building Construction
- De Chiara J., Time Saver Standards for Building Types, Sapna Publishers, Delhi
- Dutt D.R., How best to plan and build your home, Pustak Mahal, Delhi
- Kasu A. , Interor Design, Ashish Book Centre, New Delhi
- Kerala Building Rules(KBR)
- Rangwala S.C., Town Planning, Charotar books, Anand
- Shah,et.al., Building Drawing, Tata Mc Graw Hill, Mumbai
ERGONOMICS

Course Code: HSRM1CT04

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To make the students aware of the role of ergonomics in work effectiveness and efficiency
- To understand the ergonomical factors contributing to productivity, safety, control and well being of individual performing the work
- To discover how the work environment can be improved using occupational safety
- To Learn how to create safer and more comfortable work environments for the public and private sectors

Course Outline

Module 1: Introduction to Ergonomics

Importance, Principles, Components, Scope of Ergonomics in modern society and impact of ergonomics on work place designing, Man-Machine ñ Environment System interaction

Module 2: Fundamental of Work Physiology

Structure and function of the muscles, Biochemistry of muscle work, Physiological factors involved in muscular work, Sources of energy for muscular work, Static and dynamic muscular effort, Energy requirement for muscular work and efficiency, Energy expenditure for various activities, Endurance and muscular strength.

Module 3: Work load and posture

Identification and analysis of postures ñ Sitting, standing, reaching, moving, Static and Dynamic work, Body mechanics

Module 4: Wrong postures and its ill effects

Effect of wrong postures on cardiovascular and muscular skeletal system, Work related MSD- cause and prevention, Correct techniques of lifting and carrying weights, Technique such as OWAS, RULA, REBA etc.

Module 5: Fatigue

Classification, Factors influencing fatigue,Causative factors and alleviating techniques, work simplification ñ meaning and techniques, Mundellis classes of changes, Work curve, Work ñ Rest Cycle
Module 6: Anthropometry and its application

Definition, scope, Human body as system of leavers, Anthropometric measurements, percentile humans, anthropometric data base, Accessible Work Areas, Nutrition and physical fitness, Job- Demand- Fitness Compatibility, Physiological cost of Household activities, Acceptable workload (AWL), Principles of motion economy.

Module 7: Environmental Parameters

Effect of Illumination/Lighting on environment, Thermal comfort and its impact on work efficiency, Effect of air pollution, Effect of Noise on Environment, effect of music on productivity and well being, Vibrations and its effect on body parts during work with body parts, Psycho-social environment.

Module 8: Work station designing

Ergonomical factors considered while designing workplace/kitchen/ office/ specialized areas, common workplace motion, work triangle, physical space arrangements, Hazards of ill designed work station, Ergonomical consideration for the physically challenged workers with disabilities.

Related Experience:-

1. Determination of workload using heart rate and oxygen consumption (Demonstration) ě Treadmill/ Bicycle ergometer/ Step stool
2. Identifying the types of postures assumed by women during work, analysis and interpretation of the results.
3. Determination of maximum and comfortable working heights in horizontal and vertical plane
4. Determination of minimum space required for selected activities
5. Study few commonly used tools and equipments on the basis of their shape, size length etc to save times, human energy and fatigue

References:-

EVENT MANAGEMENT (PRACTICAL)

Course Code: HSRM1CP05

Teaching hours: 5hrs/week

Credit: 2

Objectives

- To acquire an understanding of the role and purpose(s) of special events in organization and in general.
- To study the techniques and strategies required to plan successful event management.
- To understand the knowledge and competencies required to promote, implement and conduct various events.
- To assess the quality and success of special events.

Course Outline

Module 1: Event Planning - Plan an event with aim, set standards, establish objectives and prepare an event proposal.

Module 2: Event Organising ñ Organising the Event - Event production and logistics - concept, theme, fabrication, light sound, handling vendors, logistics policy, procedures, protocols, performance standards, dress code, staging and staffing, traits, motivation and functional areas.

Module 3 Event Evaluation - Assessing and measuring event success - SWOT / PERT analysis

Module 4 Internship training (1 week) with any event management organization/Comparison of organization of various functions / venue arrangements - wedding reception, institutional events, theme parties etc.

VIVA

References

- Event Management a profession approach, Ashutosh Chaturvedi.
- Event Management an integrated and practical approach, Razaq Raj, Paul Walters and Tahir Rashid
- Successful event management, Anton Shone and Bry Parry.
SEMESTER II

HOUSEHOLD EQUIPMENTS

Course Code: HSRM2CT06
Teaching hours: 5hrs/week
Credit: 4

Objectives:

• To enable students to gain knowledge and develop skills in handling household equipments.
• To understand the working mechanism, care and maintenance of various household equipment.
• To understand high tech equipment features, equipment design, technologies adopted, standards and product testing aspects.
• To understand the importance of Ergonomics in designing household equipments

Course Outline

Module 1: Household Appliances and its Classification

Major/minor, Electrical/ Non electrical, Motorized, Heating, Electronic and low voltage appliances

Module 2: Electricity in home

Basic concepts, Home wiring to suit installations and use of appliances, AC/DC Source, Electrical materials ñ conductors, semi conductors and insulators, Safety considerations

Module 3: Electrical equipments

Equipments used for Food Preparation ñ Mixer, Grinder, Churner, Food processor; Cooking ñ Induction stove, microwave oven; Cleaning ñ Vacuum cleaner; Washing ñ Dishwasher, washing machine; Storage ñ Refrigerator; Other household equipments ñ A/C, Water heater/ geysers; Use of electrical equipments in modern homes

Module 4: Non-electrical equipments

Equipment used for preparation, cooking and other minor tools used in kitchen ñ pressure cooker, pressure pan, gas stoves; Equipment used for cleaning and other activities

Module 5: Materials used for the construction

Base materials, Finishing materials and materials used for insulation - Types, classification, merits and demerits
Module 6: Selection, Care and Maintenance of Equipments

Factors affecting selection and use of equipment in the home, Influences of equipment on family living, Minor problems and trouble shooting in electrical and non electrical gadgets

Module 7: Quality Control and Standardization for Equipments

Product Safety, Need for product testing, Product testing techniques and devices, Product evaluation, Organisations contributing to developing standards ñ ISI, (BIS) and BEE.

Module 8: Design consideration for tools/equipments

Ergonomical principles used in designing household equipment to achieve economical and satisfactory performance. Functional designing - Significance and essentials of Product Design, Anthropometry in designing, Area in which R&D work is needed.

Related Experience:

1. Market survey to study the trends and availability of various household equipment
2. Preparation of tools for equipment evaluation and selection
3. Comparison of performance characteristics of various brands of major household equipment

References:

INTERIOR DECORATION AND CREATIVE ARTS

Course Code: HSRM2CT07
Teaching hours: 5hrs/week
Credit: 4

Objectives:

1. To make students aware of the planning principles for designing various types of residential spaces.
2. To gain the basic knowledge of furnishing the residential space
3. To gain better understanding as regard the history of furniture, anthropometric data, various materials and their uses etc for the interiors.

Course Outline

Module 1: Design Fundamentals
Definition and classification of design, Design types â i) structural (functional) ii) ornamental (decorative) â Naturalistic, stylized, Geometrical, Historical, Traditional, Modern, and Abstract; Elements of design, Principles of design; Study of colour in detail: Introduction, Characteristics of colours, Colour systems 2D and 3D â Prangís, Munsellís and Ostwald ñ Colour harmonies, psychological effect of colours and its use in interior

Module 2: History of furniture
Brief introduction with respect to special reference to periods and styles such as traditional, contemporary, modern etc.

Module 3: Resource Materials
Materials for interior use, properties, care and cost. Wood, stone, brick, plastic, iron, aluminium, brass, glass, foam rubber etc, wall finishes, floor finishes, materials for ceiling and false ceiling and furniture finishes.

Module 4: Factors influencing furnishing of interior space
Climate, family needs and preferences, materials availability, design, principles, financial limits.

Module 5: Factors to be considered while planning (designing)
Grouping of rooms, orientation, lighting, ventilation, circulation, spaciousness, privacy, flexibility, services, aesthetics, cost.
Module 6: Environmental factors and home lighting

Light, ventilation, temperature, noise and pollution and their influence on human work. Types of lighting, adequacy of lighting in various area, sustainable lighting.

Module 7: Space Saving Techniques

Multipurpose room, multipurpose furniture, illusion with the help of lighting effect, mirror use and colour use.

Module 8: Accessories in Interior

Definition, classification, selection and placement of accessories; pictures, art, crafts, sculptures, antiques, indoor plants and flower arrangements.

Related Experience

1. Blending colours to observe the effect of colours on each other
2. Creation of art forms
3. Development of accessories from waste

References

- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Khanna G, Art of Interior Design, Indica Publishers, Delhi
- Craig H.T and Rush C.D, Homes with Character, DC Health and Company, Boston
- Goldstein H and Goldstein V, Art In Every Day Life, Macmillan Company New York

FOOD SERVICE ORGANISATION AND MANAGEMENT

Course Code: HSRM2CT08

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To understand the organisation of food service establishments and management of human, material and financial resources
- To be familiar with various concepts involved in quantity and quality food production and service
- To understand the need for personnel management in the food industry
Course Outline

Module 1: Development, Scope and Types of Food Service Establishments

History, scope and development of food service institutions, factors affecting development, recent trends, Types of food service establishments (commercial and non-commercial) and their characteristic features. Planning for a food service Unit - Planning, Investment, Project Report, Registration (License and Inspection)

Module 2: Food Service Organisation and Management


Module 3: Quantity Food Preparation

Methods of purchase (formal and informal), Identifying needs, Selection, Receiving, Storage types, Issuing, Menu Planning - Importance, Functions of Menu, Types, Steps in Menu Planning, Requisites in Designing a Menu Card, Sequence of courses in Indian and Continental Menu, Quantity food preparation - food production systems management, Production control - Standardisation of recipes, Stepping up of recipes, portion control, Quality control in food preparation. Food Laws

Module 4: Quantity food service

Food Service Delivery Systems (Centralised and Decentralised) Type of food service systems (conventional, commissary, ready prepared, assembly), Service Styles (table, counter, tray, silver, plate, cafeteria, buffet), Specialized forms of service (hospital, airline, rail, home deliver, catering and banquet, room and lounge service).

Module 5: Table Setting and Arrangement

Indian and Western Styles of Table Setting, Table Appointments, Napkin folding styles, Flower arrangement, Table Etiquettes.

Module 6: Organisation of Space and Equipment

Design and layout of kitchen, Types of kitchens, storage and service areas, Determining Work Centres. Equipments and types, planning, Factors affecting selection and purchase.

Module 7: Financial Management

Book keeping (Single and Double entry system), Books of Accounts, Journal, ledger, trial balance, balance sheet, Type and Behaviour of costs, profit analysis, Records and Controls, Budget, Food cost control methods.
Module 8: Personnel Management

Styles of Leadership, Effective Leadership and Communication, Staff Planning and Management, Employment, Staff Recruitment, Selection, Placement, Induction, Training, Evaluation and Appraisal, Labour laws. Sanitation and Safety in food service industry- Personnel hygiene, Safety at work, measures adopted

References

• Mahmood A. Khan, (1987), Food Service Operations, AVI, U.S.A.

RESEARCH METHODS AND STATISTICS

Course Code: HSRM2CT09

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To understand the significance of research methods and statistics in Home Science research.

• To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.

• To understand and apply the appropriate statistical techniques to analyse numerical data and draw inferences.
Course Outline

Module 1: Introduction to Research

Definition, Objectives and Characteristics of research, Types of Research ñ Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research.

Module 2: Identification of Research Problem

Sources of research problem, Criteria for the selection of research problem. Research design, Rationale, Statement of problem, Setting objectives, Definition of concepts, operational definition, variables ñ independent and dependent, control and intervening variables, limitations and delimitation. Hypothesis ñ Meaning and importance, types of hypotheses.

Module 3: Sampling

Population and Sample, Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non sampling errors.

Module 4: Research methods and tools


STATISTICS

Module 5: Descriptive Statistics:

Measures of Central Tendency ñ Mean, Median, Mode; Partition Values ñ Quartiles, Deciles and Percentiles, Measures of Dispersion ñ Range, Quartile deviation, Standard deviation. Absolute and Relative measures of dispersion, Coefficient of variation.

Module 6: Correlation and Regression:

Correlation and Regression. Scatter diagram, Correlation, Coefficient of Correlation ñ Karl Pearson and Rank Correlation Coefficients. Interpretation of Calculated co-efficients. Concept of Regression, Regression Lines and their estimation.

Module 7: Concept of Probability and Random Variable.


Module 8: Sampling distributions

Sampling distributions, F and $\chi^2$ distributions. Central Limit theorem, Standard error and its importance and applications. Testing of Hypothesis ñ Hypothesis, Null and Alternative hypothesis, Type I and Type II errors, Significance Level and size of test, Critical Region,
Testing Procedure concept of P Value in testing. Large and small sample tests (Z, t, F and $\chi^2$ statistics)

**Related Experience**

A five day training in using SPSS or similar package used in statistical analysis of data.

**References**


**HOME FURNISHINGS**

**Course Code:** HSRM2CP10

**Teaching hours:** 5hrs/week

**Credit:** 2

**Objectives:**

- To understand various furnishing materials and their selection
- To develop skills in preparation of suitable furnishings for interiors
- To enable estimation of fabric and cost of furnishings

**Course Outline**

**Module 1: Fabric Study**

Module 2: Fabric Art Techniques

Patch work techniques, Applique work/ mirror work/ quilting/ smocking/ embroidery; Needle made borders and cutwork techniques; Tie and Dye, Batik, Stenciling, Screen printing and Block printing.

Module 3: Construction/ Model Making of Furnishing Materials

Calculation of fabric requirements and model making of curtains and draperies, various types of pleats- box/pinch/cartridge pleats; Table cloths º round/square, table mats/ napkins ; Bed sheets/bed spreads, pillow covers, box and bolster cushions ; Theme based design development for selected interiors.

VIVA

References

- Great Home Decorating Ideas, Mike Lawrence and Jan eaton, Anness Publishing Limited, London.

SEMESTER III

CONSUMER STUDIES

Course Code: HSRM3CT11

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To make students aware of the economic system in India.
- To familiarize students with changing trends in consumer world.
- To equip and impart knowledge on consumer related facts and issues.
- To make students enlightened empowered and smart consumers.

Course Outline

Module 1: Consumer and the Indian economic environment.

Definition and characteristics of consumers, Definition, role, types and how does an economy function, problem of economy , Indian economic environment, Role of consumers in the economy of a nation.
Module 2: Consumer Behaviour and buying habits

Understanding consumers and their wants, Buying motives- primary, selective, rational, emotional patronage, Factors influencing consumer behavior and buying motives, Consumer decision making process, Market strategies influencing consumer behavior, Guidelines for wise purchasing practices.

Module 3: Consumer Market

Market ñ meaning, definition ,types and functions, Products and services market and its characteristics, Market segmentation, Consumer co-operatives objectives and functions, Changing market environment - telemarketing, cyber marketing, global, privatization of monopolistic services, e-business and e-commerce, Consumer credit-definition, types, sources and factors affecting consumer credit

Module 4: Product management, pricing, promotion strategies and distribution channels

Product decision and strategies, Product Life cycle, New product development, Branding and packaging, Pricing policies and practices, Advertising and publicity, Personal selling and sales promotion, Meaning, types advantages and factors considered in the selection of channel, Sales forecasting, Marketing and public policy

Module 5: Consumer education

Need and significance, Aspects of consumer education, Problems in consumer education, Consumer rights and responsibilities, Consumer aids- Labels, trademarks, brand names, patents, warranty, guarantee and after sales service.

Module 6: Consumer problems and consumer redressal

Types of consumer exploitation ñ adulteration, malpractices in packaging and labeling, incorrect weights and measures, false advertising and sales gimmicks, Consumer redressal ñ Consumer services-Government and voluntary agencies, merits and demerits, Redressal forum-district, state and national and its functions.

Module 7: Consumer acts and regulations

Consumer protection ñ importance, scope of law in consumer protection, consumer movement, Consumer protection Act 1986, Role of institutions in quality control ñ meaning and definition, standard institution ñ BIS, Agmark, ISO.

Module 8: Consumer Research

Purpose and scope for consumer research, Consumer research methodology, Role of consumer organization in consumer Related Experience, Research, Consumer research in the market economy

RELATED EXPERIENCE:

1. Comparison of wholesale and retail purchasing/ visit to consumer co-operatives
2. Preparing a manual of consumer education
3. Visit to the consumer forum to observe cases and complaints of consumers
4. Visit to different types of markets- organized, unorganized, local, weekly etc.

References:


CRISIS MANAGEMENT AND COUNSELLING

Course Code: HSRM3CT12

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To create in students the awareness of different types of crises.
- To develop insight into the manner of coping with crises situations.
- To develop skills for guidance and promoting intervention programs for coping in crises.

Course Outline

Module 1: Introduction to crisis

Meaning and concept of crisis, Types of crises - natural disasters, man made crisis situations, General nature/characteristics of crisis.

Module 2: Response to crisis

Common problems produced by crisisó loss, changes, risk, Common reactions to traumatic situations, protective and risk factors, bodily changes in response to stress, Key stages in the process of loss and bereavement
Module 3: Understanding Crisis Situations


Module 4: Management of Crisis Situation

Identifying crisis, planning responses, handling crisis situations, Principles of emergency/disaster management, Phase of emergency/disaster managementó preparedness, mitigation, response and recovery.

Module 5: Intervention in Crisis


Module 6: Crisis Counselling

Counseling- definition,purpose, elements and types, Counsellorís roles and responsibilities, Qualities and skills of a counselor

Related Experiences

1. Study steps in emergency management followed in hospitals/institutions/schools.

2. Visit to a Counselling Centre.

3. Case study/Personal interview of people who have successfully survived disasters/traumatic situations.

References:

HOSPITALITY ADMINISTRATION

Course Code: HSRM3CT13

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To develop skill in managing accommodation department and dealing with the procedures
- To know the organizational and procedural aspects of front office and housekeeping departments of hospitality institutions
- To identify the need and use of different tools and equipments belonging to the two departments
- To develop social skills and effective communication in dealing with guests, colleagues and management

Course Outline

Module 1: Introduction to hospitality and hotel industry and tourism

Classification of hotels and other hospitality Institutions, importance of tourism for hospitality industry, types of operations, Hostess training

Module 2: Organisation of departments

Departmental classifications, numbering of rooms and food plans, room types and rates, Tariff structure, rate policies

Module 3: Front Office and Guest reservation

Importance of the department, Layout and planning, Staffing pattern and duties, Basic Terminology used in the department, Qualities and etiquettes of front office staff

Module 4: Basic reservation system

VIP Procedures, Computerized reservation forecasting, Cancellation, penalty, Arrival and departure, C-Form, procedures of check-in and check-out, Key handling and control, Luggage handling, Book Keeping and Record Maintenance, Lobby management, Public relations, Co-ordination and communication of front office with other departments

Module 5: Records for control

Importance of reports, the front desk log, maintaining room status, maintaining account balance, monitoring availability, electronic front office, electronic point sale system, room status indicator, accounting equipment
Module 6:  Housekeeping

Importance and need of Housekeeping Department, Organisation and duties, Hierarchy and Job descriptions, Layout, Inter-departmental coordination and communication, Interrelationship with Personnel Department: Importance and functions, Manpower planning, Recruitment, training and appraisals

Module 7:  Linen room and Laundry management

Classification and selection of linen, par stock determination, storage, distribution and control of linen and uniforms, condemnation and reuse, bed making and turning down, Layout and physical attributes of Linen room and storage and laundry, Staff and duties, wet and dry washing, finishing processes and stain removal

Module 6:  Upkeep, Sanitation and hygiene

Cleaning Guest rooms and service areas, Rules, procedures and principles, Methods of Cleaning of various materials, types of room cleaning- daily, weekly, spring cleaning etc. Equipments, cleaning agents and maidis trolley, Sterilization, disinfection, Control of infestation, Integrated Waste Management (IWM), Room inspection checklist, repair and maintenance, Refrigeration and A/C, Public address system and music

Module 7:  Aesthetic treatments of Interior environment

Interior decoration in Commercial / hospitality areas, window treatments, Selection and care of Furniture, furnishings, lighting and accessories, Floral decorations and table setting and layout, Indoor gardens and Landscaping

Module 8:  Safety Education and First Aid

For shock, fainting, stroke, burns, fits, heart attack, etc. Safety measures, fire preventions and control, accident prevention, security measures

Related Experience:

1. Visit to front office and housekeeping departments of various institutions
2. Role play of guest handling / First Aid / Hostess duties / etiquettes
3. Practical Bed making / Table setting / Flower Arrangement / Curtain Styles
4. Internship in Housekeeping/ Front Office at any Institution/ Preparation of modules for training housekeeping attendants

Reference:

• Express Health Care Management
• Ismail A., Front Office ñOperations and Management, Thomson and Delmar Publishers, Canada
• Raghubalan and Smritee Raghubalan, Hotel Housekeeping- Operations and Management, Oxford University Press, New Delhi

SCIENTIFIC WRITING AND PROJECT FORMULATION

Course Code: HSRM3CT14
Teaching hours: 5hrs/week
Credit: 4

Objectives:

• To be able to appreciate and understand importance of writing scientifically.
• To develop competence in writing and abstracting skills.

Course Outline

Module 1: Scientific writing as a means of communication

Different forms of scientific writing. Articles in journals, Research notes and reports, Review articles, Monographs. Dissertations, Bibliographies, Book chapters and articles.

Module 2: How to formulate outlines

The reasons for preparing outlines: as a guide for plan of writing, as skeleton for the manuscript, Kinds of outlines, Topic outlines, Conceptual outline, Sentence outlines, Combination of topic and sentence outlines

Module 3: Drafting titles, Sub titles, tables, illustrations

Preliminary processing of data, Classification and organization of data, Objectives of classification, Tabulation of data, General rules of tabulation. Tables, Parts of a table, Types of tables. Representation of data ñ Significance of diagrams and graphs, Types of diagrams and graphs, advantages and limitations
Module 4: The writing process

Getting started, Use outlines as a starting device, Drafting, Reflecting, re-reading ; Checking organization, Checking headings, Checking content, Checking clarity; Checking grammar, Brevity and precision in writing, Drafting and re-drafting based on critical evaluation

Module 5: Parts of dissertation/research report/article

Introduction, Review of literature, Methods, Results and discussion, Summary and abstract, References. Ask questions related to content, continuity, clarity, validity, internal consistency and objectivity during writing each of the above parts.

Module 6: Writing for Grants

The question to be addressed, Rationale and importance of the question being addressed, Empirical and theoretical framework, Presenting pilot study/data or background information, Research proposal and time frame; Speciality of methodology, Organization of different phases of study, Expected outcome of study and its implications, Budgeting, Available infra-structure and resources, Executive summary

References

INTERIOR DECORATION AND CREATIVE ART
(PRACTICAL)

Course Code: HSRM3CP15

Teaching hours: 5hrs/week

Credit: 2

Objectives:

• To develop skills in various art processes
• To appreciate the aesthetic elements involved in the art process
• To develop skill in decorating home

Course Outline

Module 1

Development of motifs and patterns based on various types of design

Module 2

Application of elements and principles of design

Module 3

Colouring exercises with primary, secondary and standard colours, Prangís colour system, use of colour harmonies in room interiors, blending of colours to observe the effect of colour on each other.

Module 4

Basics of fine arts ñ drawing, painting, sculpture and photography

Module 5

Creation of art objects ñ collage work, flower making, decoupage, greeting cards, stencil printing, glass painting, candle making, pot painting, batik printing, quilling, vegetable carving, wealth from waste etc (any 6)

Module 6

Flower arrangements- selection of flowers, vases and tools needed, principles, techniques, creation of basic shapes, Ikebana

Module 7

Bouquet making, Gift wrapping, picture mounting

VIVA
References

- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Khanna G, Art of Interior Design, Indica Publishers, Delhi

SEMESTER IV

LANDSCAPING AND FLORICULTURE

Course Code: HSRM4ET01

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To enable students to gain knowledge on landscape gardening and its appropriate application
- To acquire skills in cultivation of different garden plants.
- To instill entrepreneurial skill in floriculture and nursery management

Course Outline

Module 1: Landscape gardening:

Meaning and importance of landscaping, principles of landscape gardening, components of landscape design, Principles of external space organization. Styles in landscape gardening - layout of formal, informal and small, medium, large gardens. English, Italian, French, Persian, Mughal and Japanese garden.

Module 2: Modern trends in gardening

Indoor gardening - Identification and selection of indoor plants, care and maintenance, display and placement; Bonsai - styles, identification of suitable plants, containers, techniques - pruning, nipping and wiring; Terrarium/ bottle garden/ dish garden

Terrace gardening - Designing, selection of plants, water proofing and checking the strength of terrace slab, Kitchen gardening - Design, types of vegetables grown; Water garden and rockery

Module 3: Ornamental plants:

Herbs - annuals and biennials, flower beds, ground covers; Shrubs - flowering and foliage, climbers, creepers, perennials - bulbs, tubers, ferns, succulents, cacti, ornamental grass, bamboo and palm; Trees - arboriculture, importance and value of trees, selection, planting, maintenance and care, role of trees in landscaping.
Module 4: Garden components

Garden pavements, borders, hedges, edges, trophy, topiary and garden adornments
Lawsns: Importance of lawn, methods of lawn making, maintenance and care, type of lawn grasses.

Module 5: Commercial Floriculture

Importance, scope and significance, perfume industry, flower pigments, aromatherapy, flower trade, cut flowers, post harvest treatment and packaging of cut flowers.

Module 6: Floriculture promotion and extension:

Floriculture for income generation: Orchid, Anthurium, Jasmine and rose gardening, value addition in floriculture. Preservation techniques ñ Dry and fresh flowers and leaves.; Role of agri-horticulture societies, KVKS, Krishi Bhavan, horti crop, flower shows ñ exhibitions

Module 7: Soil Preparation and Plant Propagation

Garden tools and implements; Soil preparation : soil types, soil treatment, organic manures and fertilizers; Irrigation - methods and routine duties in a garden; Plant propagation ñ Types of Propagation - Seed propagation, vegetative propagation/asexual propagation ñ layering, cutting, grafting, budding; Micro propagation ñ tissue culturing; Care of plants ñ potting - repotting techniques, pruning, disbudding, defoliation, staking and mulching. Green house ñ components, types, care and maintenance.

Module 8: Nursery Management

Nursery management ñ Definition, importance, types ñ small scale, large scale, planning, budgeting, layout and irrigation, Maintenance and management, personnel involved, export potential of horticultural products, loans and subsidies from banks and agencies. Marketing ñ packaging, transporting of nursery products.

Related Experience:-

1. Prepare the layout of a small/medium/large garden suitable for residential building
2. Prepare the layout of an ornamental garden for institutions/ public buildings/ industrial areas/ neighbourhood planning.
3. Collection of pictures of different garden styles
4. Visit to flower shows/ nurseries

References

- Aquaa George, Teaxt Book of Horticulture,
- Arora, J.S , Introductory Ornamental Horticulture
- Hunter MK and Hunter E.H , Indoor Garden Design
- Manibhushan Rao, Teaxt Book of Horticulture, Macmillan India Ltd., New Delhi
- Singh J Basic Horticulture
- Swarup, V. 1997, Ornamental Horticulture, Macmilan India Ltd., Chennai
- Trivedi PP, Home Gardening
COMMERCIAL AND RESIDENTIAL INTERIOR SPACE DESIGNING

Course Code: HSRM4ET02

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To provide the students with thorough understanding of Interior schemes
• To equip students with adequate knowledge to design residential and commercial interiors considering interior design concepts
• To equip the students to take up the profession of interior designer / decorator
• To make the students understand the professional aspects of Interior Design

Course Outline

Module 1: Design for real world

General influence of architecture, spatial entities and spatial awareness, Style and symbolism, Design philosophies and influential designers, Understanding of life spaces from design point of view - Importance of life space, Factors influencing life space designing, Basics of space planning, Functional planning, classification of life spaces - group space, private space, support space, support systems

Module 2: Application of the theory of design

Application of elements and principles of design in commercial and residential spaces, Importance and influence of colour in space, Development of colour schemes for spaces, Purposes and characteristics of spaces, Creation and use of Illusions

Module 3: Space organisation in residential / commercial areas

Space planning of residential areas ð houses, flats, villas, condominiums, studio apartments, Space planning of commercial areas- hospitality areas, offices, hospitals, institutions, merchandising areas, Application of space saving techniques- Multipurpose spaces, furniture, illusions etc.

Module 4: Furniture, Furnishings and finishes

Factors to be considered while selection, purchase and use, Historical Approach and latest trends from the market

Module 5: Study of Specialised services in interiors

Acoustics, Air-conditioning, Commercial lighting, Communication system, Audio-visual system, Display systems, Security systems
Module 6:  **Applied Ergonomics in interior space designing**

Study of human measurement (anthropometric data) in space designing, planning space with ergonomics principles, Environmental factors affecting work efficiency etc.

Module 7:  **Interior design as a profession**

Role and career options of interior designer, importance and scope of interior designing in modern era, Client support features and consultancy services, CAD- Computer Aided Design Basics, 2D and 3 D drafting.

Module 8:  **Trends in interior design**

Study of traditional design and decorations, Latest and current trends in design and decorations, Factors influencing change, Design trends from around the world.

**Related experience:**

1. Visits to Commercial and Residential Interiors
2. Collection and documentation of figures and photographs of furniture, furnishing, accessories etc.
3. Evaluation of multipurpose and various functional spaces and furniture
4. Training in CAD- Computer Aided Design Basics, 2D and 3 D drafting/ 3D MAX/MAYA
5. Field trips/ Internship/ Attending Seminars, workshops or exhibitions

**References:**

- Arora and Bindra, Building Construction
- Bureau International ñ The Manual of Modern Office Space
- Dutt D.R., How best to plan and build your home, Pustak Mahal, Delhi
- Fevicraft ñ A Journal of Crafts and Arts, Pidilite Industries Ltd., Mumbai
- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Kerala Building Rules(KBR)
- Rangwala S.C., Town Planning, Charotar books, Anand
- Shah, et.al., Building Drawing, Tata Mc Graw Hill, Mumbai
WOMEN’S STUDIES

Course Code: HSRM4ET03

Teaching hours: 5hrs/week

Credit: 4

Objectives

• To create an awareness among the students about the status of women in India.
• To familiarize with the issues and problems of women
• To motivate students to work for the betterment of women

Course Outline

Module 1: Introduction

The Concept and Significance of Women’s Studies. Scope of Women’s Studies. Women’s Studies as an academic discipline. Women’s Movements- Pre independant, Post independant and Current women movements. Need for empowerment of women.

Module 2: Status of women in India

Demographic profile of women with reference to health, education, employment, social and political aspects. Gender bias. The Indian girl child. The changing role of women.

Module 3: Special Issues and Problems


Module 4: Women in workforce

Concept of work- productive and non productive work. Use value and market value. Women in organized and unorganized sectors, Special problems and needs. Gender division of work. Micro enterprises and women entrepreneurship development. NGOs and women development. Globalization and impact on women’s employment. Role of SHGs.

Module 5: Women and Law

Module 6: Developmental Programmes for Women

Services for protection, care and rehabilitation, Poverty alleviation and economic empowerment, Nutrition and health care programmes, Education and legal literacy. National and State Commissions for women.

Related experiences

7. Visit to an institution providing care and support to needy women
8. Debate on the pros and cons of dowry
9. Interact with women in a self-help group and understand its functioning.
10. Visit to any unit for women in a self-help group and understand its functioning
11. Visit to any unit of women entrepreneurs.
12. Discuss the procedure for availing help by women in distress.

References

- Ashok S Kolaskaer and Motilal Dash (2012), Women and Society; The road to change Oxford University press.
- Charu Gupta (2012), Gendering Colonial India, Reforms, Print, Caste and Communalism, Orient blackswan
- Mary E. John ed. (2008), Women's Studies in India: A Reader, New Delhi: Penguin Books India,

ENTREPRENEURSHIP MANAGEMENT

Course Code: HSRM4ET04

Teaching hours: 4hrs/week

Credit: 4

Objectives:

- To gain an understanding of the various aspects and types of business organizations
- To impart information on the various sources of finance and also on the process of setting up small enterprise.
- To enable students to understand the relevance of entrepreneurship and to develop effective entrepreneurship skills among students.
Course Outline

Module 1: Entrepreneurship and its development

Entrepreneurship-Definition, types, characteristics, Entrepreneurship development for employment generation- importance, Factors affecting entrepreneurial growth- economic, social, cultural and personal factors.

Module 2: Women and Employment

Women employment in India - categories of employment, problems related to employment, Unemployment in India- causes & remedies, Importance of self employment.

Module 3: Forms of Entrepreneurial Organizations

Scope and Objectives of modern business, Essentials of successful business, Sole proprietorship, Partnership, Joint Stock company, State enterprises and Co-operative societies ñ meaning, merits and demerits of each, Types of important documents of companies

Module 4: Entrepreneurship and Institutional support

Objectives, functions and assistance given by SIDCO, SIDO, SFCK, IDBI, SIDBI, KSIDC, KSWDC, KITCO, SEWA,SGSY (Swarnjayanti Gram Swarozgar Yojana), JGSY (Jawahar Gram Samridhi Yojana) , Agencies promoting entrepreneurship ñ role of NSIC (National Small Industry Corporation) , Small Industry Extension Training Institute (SIETI) , Central Small Industry Organisation (CSIO) DCK, DRDA, KVIC (Khadi and Village Industry Commission) and other voluntary organizations, Small Scale Industries (SSI) - Definition, types, procedure for setting a small scale unit, training facilities for small scale unit, Problems faced by emerging small scale units and remedies

Module 5: Source of Finance

Importance of finance- sources of company finance - long term and short term, Role of banks and other financial institutions, Basics of Costs and Cost Control, Project Appraisal

Module 6: Book keeping & Accounting


Module 7: Marketing & Sales promotion

Marketing- Marketing mix, Functions, types, Advertising & Salesmanship, Public relations, Personal selling, Interpersonal skills, factors affecting the entrepreneurís skill

RELATED EXPERIENCE:

1 Visits to agencies involved in development of entrepreneurship
2 Preparation of a project proposal by

- Selection of a trade
- Visits to 1 or 2 units related to trade
- Study the infrastructural requirements
- Records to be maintained
- Procedure for obtaining loan

References

- Bhattacharyya, S.K Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi
- Bhushan, Business Organization, Sultan Chand & Sons, New Delhi, (1985)
- Ramesh Babbuis Handbook of Entrepreneurs, Business Intelligence Publications
- Shukla M.C., Business Organisation, S. Chand & Co. New Delhi, (1970)
SPACE PLANNING AND DESIGNING

Course Code: HSRM4EP05

Teaching hours: 6hrs/week

Credit: 3

Objectives:

- To enable students to: Develop the skill in visualising and drawing various Interior schemes considering interior design concepts
- Develop the skill of execute the visuals into concrete spaces
- To make students understand the professional aspects of Interior Design

Course Outline

Module 1: Techniques of engineering drawings

Familiarising with Tools, Methods, Basic elements - paper sizes, lines, lettering, scales and measurements, symbols and abbreviations, Tracing, Shading and sciagraphy, `

Module 2: Projection Techniques and Interior Design Methodology

Preparation of Plans, elevations and sections, Metric Drawings- Isometric, axonometric and Oblique, Perspective drawings- One Point and Two point, Rendering techniques, Preparation of Bubble diagram, Line drawing, Drawings to scale, Working drawings - elevation and sections

Module 3: Fundamentals of Interior Designing

Exercises in Space planning and Organisation, Anthropometry in work space and furniture design, Drawing the Building components- Foundation, floor, wall, roof, ceiling, doors, windows and other openings, stairs and other means of vertical transport, Service features-plumbing and drainage layout, electrical layout, Furniture designing - Joinery sketches, Drawing furniture using different techniques, Designing Multipurpose furniture, estimating cost

Module 4: Study of Design Sources from History

Design Review of Precedents in Architecture - Egyptian, Greek, Roman, Chinese, Gothic, Renaissance, Indian- Hindu, Jain, Buddhist, Mughal, Colonial, Modern architecture, Post-Modernism

Module 5: Design communication and representational techniques

Exercises in Visualisation, Creation of Mood and Illusion, Model making, Presentations to sell ideas and concepts
Module 6: Residential space planning

Case Study of a residential space design, Preparation of a residential project, Theme wise Interior setting up of various rooms of the Practical Lab

Module 7: Commercial space planning and Decorations for special occasions

Case Study of a commercial space design, Preparation of a commercial project, Dias decorations, Decorations for festivals, Window and shop displays

VIVA

Reference:

- Fletcher B. (Sir), A History of Architecture
- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Oliver Heath (2004) Oliver Heathís Home Book, Cassel Illustrated, Britain

DEVELOPMENTAL COMMUNICATION AND EXTENSION

Course Code: HSRM4ET06

Teaching hours: 6hrs/week

Credit: 3

Objectives:

- To make the students understand the various facets of communication and its significance for extension and national development.
- To make the students understand different forms of media and ways to promote them
- To help students to learn to handle different.
- To help students to understand the principles of administration, co-ordination and Supervision in Extension.
- To become aware of the administrative structure of the Rural Development Programme in India.
To understand basic elements in extension management.

Course Outline

Module 1: Development communication

Definition and understanding of development communication, Non development Communication vs development communication, Development problems of developing countries; Objectives of development communication, Communication for human development; Planning development communication. Promotion of Development Communication: Government efforts: Role of Government agencies like Akashwani, DAVP, IEC Bureau, Resource Centers, IIMC, Songs and Drama Division etc.; Non-Government effort: Role of NGOs in development. Community Effort: Role of Agencies of local self Government and local organization. Recent advances.

Module 2: Extension Administration and Supervision


Module 3: Presentation skills

Use of visuals during presentation, Roles of visuals in communication. Clarity of message and image, Designing artwork in visuals, Oral presentation techniques, Organising message, Stage craft and delivery, Principles for effective delivery

Module 4: Facilitation skills development

Role of the facilitator, Balancing multiple responsibilities, Range of communication techniques, Building confidence, Addressing difficult behaviour; Techniques of facilitation: Asking Open-ended questions, Balancing the discussion; Reflective listening, Drawing people out; encouragement; Sequencing / stacking / tracking; Intentional silence; Reframing, Finding common ground

Module 5: Information & Communication Technology (ICT) and Rural Development

Introduction to ICT education, Various ICT tools and their uses, Roles of ICT in rural development, Research and development in ICT, Management of ICT, ICT as an alternative extension approach

Module 6: Mass media

Introduction to mass media, Types and roles of broadcast media, Types and roles of print media, Types and roles of screen media, Mass media in extension, Media and communication in Ministry of Agriculture
References:


TRAVEL AND TOURISM

Course Code:  HSRM4EP07

Teaching hours:  6hrs/week

Credit:  3

Objectives:

- To familiarise the student with the fundamental concept/ growth and development of tourism
- To understand the role of different organizations for the management of Tourism
- To provide an insight into the industrial framework of various aspect of travel and tourism in India
- To identify the different types of tourism products both natural and man-made.
Course Outline

Module 1: Concepts and Trends in tourism

Concepts, Definition -Tourism, Tourist, traveler, Excursionist, Visitor; Elements and Components of tourism; Measurement of tourism (tourism statistics); Forms and types of tourism - domestic, international, regional, inbound, outbound, Tourism net work and Interdisciplinary approaches to tourism

Module 2: Tourism Industry and its structure

Tourism Industry and its structure: attractions, accommodation, transportation, F&B, shopping, entertainment, infrastructure hospitality, Presents trends in domestic and global tourism; Travel motivators and travel intermediaries; Travel agencies and packages; Travel formalities

Module 3: Assessment of tourism impact on destinations:

Economic, socio-cultural and ecological. Concept of carrying capacity, sustainable tourism development. Emerging areas of tourism: rural, eco, medical, pilgrimage, bollywood, golf etc.; Tourism Product Development

Module 4: Tourism organizations:

World Tourism Organisation (WTO), pacific Area Travel, Association (PATA), World Tourism & Travel Council, (WTTC), Role and function of Ministry of Tourism, Govt. of India, ITDC, Department of Kerala Tourism, FHRAI, IHA, IATA.

Module 5: Overview of five year plans


Module 6: Economics of tourism.

Tourism demand forecasting- methods of forecasting. public and private sectors in Tourism- Government's role in tourism- the need for public and private sector cooperation in tourism. Cost concepts

References

- J.K. Sharma, Tourism Planning and Development; A new Perspective, Kanishka Publishers, 2000
- Manjula Chaudhaary, K.K. Kamara, Tourism Development; Impact & Strategies; Anmol Publications, 2002
PUBLIC HEALTH NUTRITION

Course Code: HSRM4ET08

Teaching hours: 6hrs/week

Credit: 3

Objectives:

- To develop a holistic knowledge base and understanding of the nature of nutritional problems and their prevention and control for the disadvantaged and upper socioeconomic strata in society.

- To understand the causes/determinants and consequences of nutritional problems in society.

- To be familiar with various approaches to nutrition and health interventions programmes and policies.

Course Outline

Module 1: Food and Nutrition Situation in India

Hunger in India, India state Hunger Index(ISHI)Food and Nutrition security, production and availability of foods in India, consumption pattern, trends in nutrient intake and nutritional status

Module 2: Principles of epidemiology and epidemiological methods

Introduction to epidemiology, aims, classifying epidemiological study methods, nutrition epidemiology and public health nutrition.

Module 3: Assessment of nutritional status in community setting


Module 4: Epidemiology of Nutritional disorders

Prevalence, Aetiology, Consequences and treatment of-PEM-Clinicals syndromes, prevention of malnutrition, managing PEM

Vitamin A Deficiency-Consequences,epidemiology,aetiological factors, intervention strategies for preventing Vitamin A deficiency disorders(VADD)
Iron Deficiency Anaemia-Epidemiology, Prevalence, aetiological consequences, approaches for prevention and control of anaemia, National Nutritional Anaemia Control Programme.

Iodine Deficiency Disorders-Epidemiology, aetiological factors, consequences of IDD, IDD as a public health problem, elimination of IDD-An International focus, National Iodine Deficiency Disorders Control Programme of India

Zinc Deficiency-Epidemiology, public health significance, clinical manifestations of zinc deficiency, Zinc supplementation in pregnancy, Flouroosis

**Module 5: Organisations and Programmes in the field of nutrition monitoring and Interventions**

Brief outline of WHO, FAO, UNICEF, CARE, NFHS, NNMB, ICDS, ICMR, ICAR

**Module 6: Nutrition Education**

Definition, Significance, Design and implementation of NHE Programme Receiver, Communicator, Message Channel, Theories of Nutrition Education, Evaluation, Purpose and Types of evaluation.

**Module 7: Food Fortification**

Technical considerations, technology for food fortification, fortificants, planning food fortification intervention, fortification of selected food items

**Module 8: Nutrition related non communicable chronic disorders**

Prevalence at global and national level, cardiovascular disease, hypertension, obesity, diabetes mellitus, cancer. Risk factors for Non Communicable Diseases-Community based programmes for primary prevention, Health education and role of mass media, secondary and tertiary prevention.

**References**

- Modern Nutrition in Health and Disease edited by Maurice B Shils, Moshe Shike, A, Catherine Ross, Benjamin Cabellero, Robert J Cousins, Lippincott Williams & Wilkins 2006.
- Public Health Nutrition in Developing Countries Edited by Sheila Chander Vir Woodhead Publishing India. Part I & II. 2011
MODEL QUESTIONS

HSRM1CT01

ADVANCED RESOURCE MANAGEMENT

Time: 3hrs

PART-A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Standards
2. TQM
3. Organization culture
4. Leadership styles
5. Levels of resolving conflicts
6. Human resource planning
7. Stress and burnout
8. Tax planning

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Give an account of MBO.
11. Discuss the objectives and functions of budgeting and its control.
12. Write about the types and factors affecting organizational design.
13. Enumerate the importance of resource management with special emphasize to time and energy.
14. Give the steps involved in decision making process and briefly discuss the types of decision.
15. Elucidate the levels of management and skills required by a manager.
16. How does the management of time affect the different stages of family life cycle?

(5x2=10 weightage)
PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Bring out the relationships of values, goals, and standards with suitable examples. Add a note on the need for value orientation for improving quality of management.

18. Explain the meaning and concept of human resource management. Discuss its scope and boundaries.


20. Give an account of recruitment, selection and orientation in human resource development.

21. Planning and control are crux of resource management- justify the statement

22. Prepare a budget for a middle income family. Enumerate various savings and investment plans for an employed homemaker.

(3x5=15 weightage)

HSRM1CT02

ECO CONCERNS IN RESOURCE MANAGEMENT

Time- 3 hours

Maximum- 30 weightage

Part- A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define air pollutants.
2. Explain the working of a Solar still
3. Comment on the impact of pesticide pollution
4. Write short notes on incineration of waste
5. Comment on the importance of inculcating eco concerns in adolescents
6. Enumerate the steps in making vermi-compost
7. What is rain water harvesting?
8. What are Soak pits?

(5 x 1 = 5 weightage)

Part ñB

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Composting is a better method to save our environment. Explain
10. Classify waste and bring out the need for a good waste management programme
11. What is ozone depletion? Discuss the harmful effect of ozone depletion
12. Discuss the impact of water pollution on human health
13. Explain the proper method of handling bio-medical waste
14. Bring out the need for combating water shortage at household level
15. Explain 3 Rs of waste management.
16. Discuss the impact of disposing toxic waste to the environment

(5 x 2 = 10 weightage)

Part ñC

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
17. Explain different methods of solid waste disposal.
18. Enumerate the causes, effects and control measures of land pollution.
19. Discuss the role of individuals in preventing environmental pollution.
20. Explain various conventional energy sources and their ecological impact.
21. Elaborate the environmental protection laws in India.
22. Discuss the significance of solar energy in overcoming the energy crisis.

(3 x 5 = 15 weightage)

HSRM1CT03

Housing and Architecture

Time- 3 hours

Maximum- 30 weightage

Part- A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Differentiate between Villas and Condominiums?
2. State the reasons for Slum formation.
3. Enlist the various factors affecting housing.
4. Explain the role of plan and elevation in proper building construction.
5. What are the requirements of a good foundation?
6. Debate on house owning vs. Renting.
7. Write a note on FSI / FAR.
8. Mention the different types of building finishing materials.

(5 x 1 = 5 weightage)

Part ñB

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Justify the role of research in the field of housing.
10. Explain the techniques of termiteproofing.
11. Illustrate and explain one method of Rain Water Harvesting.
12. Describe a few feasible techniques of improving housing among economically weaker sections
13. Draw and explain the drainage system for a house
14. Discuss on Systems approach as an evaluation method of existing houses
15. Write an account on Neighbourhood Planning
16. Describe the traditional Kerala Architecture with reference to its climate suitability

(5 x 2 = 10 weightage)

Part ñC

HI Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Town and Country planning and elaborate on the principles. How do these favour the growth of a city?
18. Give a detailed account of the modern security systems suitable for houses
19. Elaborate on the technological features of a building
20. What are the commonly used means of vertical transport for homes? Enlist with supportive sketches.
21. Write in detail about low cost housing and the technological strategies for low cost housing
22. Discuss the house management problems in rural and urban India

(3 x 5 = 15 weightage)

HSRM1CT04

ERGONOMICS

Time- 3 hours Maximum- 30 weightage

Part- A

Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Explain work triangle.
2. Define MSD
3. Write short notes on the hazards of ill designed work station
4. Enumerate the causes of frustration fatigue
5. What is Acceptable workload?
6. Explain the effect of music on productivity
7. What is Optimum Work efficiency
8. Explain OWAS Technique

(5 x 1 = 5 weightage)

Part ñB

Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss the physiological factors involved in muscular work
10. Comment on the ill effects of wrong postures
11. Explain different methods for providing ventilation in a room.
12. Enumerate alleviating techniques pertaining to physiological fatigue
13. Discuss thermal comfort and its impact on work efficiency
14. Enumerate the ergonomical consideration for designing a work area for a physically challenged worker
15. Discuss the principles of motion economy
16. Enlist the techniques used for alleviating psychological fatigue

(5 x 2 = 10 weightage)

Part ñC

Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss the scope of ergonomics in modern society.
18. Bring out the inter relationship between i work ų worker ų working environment
19. Explain Mundelis Classes of changes with suitable illustrations
20. Discuss the ergonomical factors considered while designing a kitchen
21. Explain the environmental parameters considered while designing interiors
22. Bring out the importance of anthropometry and its application in work place designing

(3 x 5 = 15 weightage)

HSRM2CT06

HOUSEHOLD EQUIPMENT

Time: 3hrs

Maximum: 30

Weightage:

PART ñ A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Microwave oven
2. Defrosting
3. LPG
4. Base materials used for equipment construction
5. Need for product testing
6. Thermal controls
7. Earthing
8. Solar water heater

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. How will you evaluate motor appliances?
10. Give an account of the importance of ISI during the purchase of household equipment.
11. Classify household equipment with example.
12. Write about the maintenance of electrical household equipments.
13. Enumerate the ergonomical principles used in designing household equipment.
14. Comment on the time and energy saving features of a pressure cooker.
15. Describe the principle of vacuum cleaning.
16. Describe the features principle of operation and safety consideration of a gas stove.

(5x2=10 weightage)

PART III

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.
17. Describe the construction features, principle of operation and safety measures of a mixer grinder.
18. Write a note on the scope and objectives of performance standards in the development of equipment design. Justify the importance of product testing.
19. Illustrate and explain the parts and working mechanism of a refrigerator.
20. Draft an interview schedule to elicit information on the usage of various solar equipments among homemakers.
21. Differentiate various heating appliances used for cooking (based on fuels). Comment on induction cooker and electrical cooking range.
22. Discuss the features of hi-tech equipment. Enumerate the selection criteria for various household equipment.

(3x5=15 weightage)

HSRM2CT07
INTERIOR DECORATION AND CREATIVE ARTS

Time- 3 hours  Maximum- 30 weightage

Part- A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Enumerate the qualities of colour
2. Discuss contemporary furniture style
3. Explain Munsell colour system
4. Define aspects and prospects
5. Explain cove lighting
6. List out the characteristics of vertical lines
7. What are multi purpose furniture?
8. Explain wood panelling

(5 x 1 = 5 weightage)

Part ñB

I. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. Briefly explain Prangis colour system
10. Illustrate typical ikebana arrangement, listing out various levels and angles
11. Discuss the use of pictures as accessories for various rooms
12. Illustrate and explain rhythm through gradation.
13. Enumerate various environmental factors influencing interior decoration
14. Explain the role of colour in creating an illusion of space in a room
15. Discuss the factors to be considered while selecting granite as a floor finish
16. Give an account of various types of accessories

(5 x 2 = 10 weightage)

Part ñC

II. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
17. "The building blocks of designs are its elements" Discuss
18. Discuss the colour harmonies based on Prang colour system
19. Explain various methods of artificial lighting in interior
20. Discuss the factors to be considered while designing
21. Discuss the evolution and history of French styles in furniture
22. Bring out the significance of principles of design in creation of good design

(3 x 5 = 15 weightage)

HSRM2CT08

FOOD SERVICE ORGANISATION AND MANAGEMENT

Time: 3 Hours
Max: 30 Weightage

Part A

I. Answer any five questions, not exceeding one page. Each question carries a weightage of 1
1. Commissary food service system
2. Work Simplification
3. Portion Control
4. Bid Buying
5. Balance Sheet
6. Standardisation
7. Induction
8. FPO

\[ 5 \times 1 = 5 \text{ weightage} \]

Part B

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.

9. What are the organisational tools used in management?
10. Explain employee performance evaluation techniques.
11. Explain the principles involved in menu planning.
12. Write on the informal system of purchasing.
14. How can food cost be controlled?
15. Discuss the factors to be considered while planning work centres in the kitchen.
16. Explain the different types of formal food service.

\[ 5 \times 2 = 10 \text{ weightage} \]

Part C

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Write an essay on the types of commercial food service establishments in India.
18. What are the principles of management?
19. Discuss guidelines for work simplification in a food service industry.
20. Plan the layout for a hospital dietary department catering to 100 beds indicating the different areas, work centres, equipment and indicating the flow of traffic.
21. What are the labour laws related to commercial food service institutions?

\[ 3 \times 5 = 15 \text{ weightage} \]

HSRM2CT09

RESEARCH METHODS AND STATISTICS

Maximum : 30 Weightage

Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Define intervening variables
2. What are partition values? Give the different partition values
3. Define a standard normal distribution
4. What is standard error?
5. What is a scatter diagram?
6. Write on the types of questionnaires?
7. What is sampling error?
8. Pictograph (5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between absolute and relative measures of dispersion
10. Briefly explain the types of research
11. Differentiate between interview and observation
12. Explain the advantages and limitations of questionnaires as a research tool.
13. Calculate the correlation coefficient from the following data sheet:

\[
\begin{align*}
N X &= 444 & N Y &= 443 & N X^2 &= 19806 & N Y^2 &= 20065 & N XY &= 19711 \\
n &= 10
\end{align*}
\]

14. Define variable and discuss the types of variables
15. What are the properties of normal distribution?
16. The following data was obtained in an investigation about the effect of vaccination for hepatitis. Examine whether vaccination is effective in preventing hepatitis.

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\[(5x2.=10\;\text{weightage})\]
PART III

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Interview. Construct an interview schedule on any relevant topic based on your interest.

18. The BMI of people follows a normal distribution with mean 20 and standard deviation 3. Find probability that a person selected at random is having BMI

   b) Between 16 and 23  b) Above 25  c) Below 20

19. Define sample. Briefly explain different types of sampling.

20. Discuss briefly on any two tools used in research

21. Compare the merits and demerits of mean, median and mode.

22. The following are the marks of 10 students before and after training. Test whether the training is effective.

   Mark before training:  91  95  81  83  76  88  89  97  88  92
   Mark after training:   89  101  85  88  81  92  92  99  97  87

   (3x5=15 weightage)
CONSUMER STUDIES

Time: 3hrs
Maximum: 30 Weightage

PART A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Consumer credit
2. Shopping goods
3. Branding
4. Market segmentation
5. Warranty
6. Consumer protection act
7. ISO
8. Types of market

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Give an account of pricing policies and practices.


11. Discuss the objectives and functions of consumer co-operatives.

12. Explain the marketing strategies that influence consumer buying behaviours.

13. Write about consumer redressal. Explain the alternative redressal mechanism for consumer grievances.

14. Enumerate the importance of sales forecasting.

15. Comment on the advantages and disadvantages of cyber marketing.


(5x2=10 weightage)
PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. What are the steps involved in the stages of a new product development. Enumerate with a suitable example.

18. Explain the meaning and concept of market. Discuss the changing market environment?

19. Justify the purpose and consumer research? Write the role of consumer organization in consumer research

20. Give an account of consumer problems?. Briefly discuss the importance of law in consumer protection.


22. What are the characteristics of consumers?. Discuss the importance of consumers in the Indian economy. (3x5=15 weightage)

HSRM3CT12

CRISIS MANAGEMENT AND COUNSELLING

Time: 3 hours Maximum- 30 Weightage

PART ñ A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What do you mean by the term natural disaster?

2. Individual Counselling.

3. What are the objectives of mitigation?

4. What is a Pre- Crisis Phase?

5. What does initial assessment in a crisis situation provide?

6. Write a note on the goal of crisis intervention?

7. What do you mean by group counselling?

8. Explain the role of a counsellor? (5x1=5 weightage)
PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss the various types of counselling?

10. What are the common problems produced by crisis situations?

11. Write a note on the stages in the process of loss/bereavement.

12. Discuss the bodily changes in response to stress?

13. Explain initial crisis response?

14. Briefly explain man made crisis situations?

15. Explain the steps in problem solving?

16. What are the principles of emergency/disaster management?

(5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.

17. Define Crisis. Explain with examples the various types of crisis situations.

18. Explain briefly the various steps used to resolve crisis situations.

19. Discuss the roles and responsibilities of a counsellor.

20. Write a note on the common reactions to traumatic situations. Also indicate the protective and risk factors which vary among individuals.

21. Elaborate on the need for a crisis management plan. Discuss a management plan followed in any institution.

22. Recommend the qualities and skills required for an effective counsellor.

(3x5=15 weightage)
II. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Substantiate the statement “the growth of tourism in a country is vital for hospitality industry.”
2. Describe the first aid for burns and scalds.
3. Classify different types of linen and its management in hotels.
4. Write short notes on “Manning” and “job description” and “job specification.”
5. Define an ecofriendly hotel highlighting its special features.
7. What are the check in and check out procedures?
8. What do you mean by room rates and tariff structures?

(5 x 1 = 5 weightage)

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Elaborate on the classification of hotels and other hospitality institutions.
10. Draw the layout of linen room and state the requisites of a good linen storage.
11. Explain the different types of gardens both indoor and outdoor suitable for institutions.
12. Draw a maid’s trolley and list out its contents.
13. Write the procedure of guest room cleaning and staff protocol to be followed therein.
14. Describe the qualities and etiquettes of front office staff.
15. Explain the table layout for a banquet with appropriate figures. Suggest suitable flower arrangements for the same.

(5 x 2 = 10 weightage)

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Describe with the help of an illustration the layout of front office department and explain the duties of front office staff.
18. Elucidate on the various training programmes provided to staff in hospitality industry mentioning the purpose of each.
19. Elaborate on appropriate Waste Management techniques to be adopted in hospitality institutions.

20. What are the different window dressings suitable for restaurants and food service areas? Give supportive figures.

21. Explain the procedure and principles of cleaning guest rooms and service areas.

22. What is book keeping? Enlist the records to be maintained in front office and housekeeping departments.

(3 x 5 = 15 weightage)

HSRM3CT14

SCIENTIFIC WRITING AND PROJECT MANAGEMENT

Maximum: 30 Weightage Time: 3 hrs

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

23. Objectivity in research.
24. Budgeting a project.
25. Executive summary.
26. Importance of bibliography.
27. Pilot study.
28. Importance of setting a time frame.
29. Presentation of a project proposal.
30. Foot notes.

(5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

31. Explain the parts of a table.
32. What are the objectives of classification of data.
33. What are the important points to be mentioned while writing the introduction of a dissertation?
34. Explain the importance of the graphical presentation of data. Briefly mention its limitations.
35. How do you write a review article?
36. What is the significance of reviewing the literature?
37. Briefly explain the principles of report writing.
38. What are the general rules of tabulation?

(5x2=10 weightage)
PART C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

39. Explain the following, citing their advantages, limitations and areas of application
   (b) Bar diagram  (b) Pie graph
40. Choose a research topic related to your field of study and write a research proposal
    for securing a university grant.
41. Briefly explain the parts of a dissertation.
42. What are the salient points to be borne in mind while writing research articles for
    journals?
43. What are the points to be borne in mind while explaining the results of a study and
    discussing it.
44. Briefly explain how to formulate outlines. Add a note on the kinds of outlines while
    reporting a research finding.

(3x5=15 weightage)

HSRM4ET01

LANDSCAPING AND FLORICULTURE

Time- 3 hours

Maximum- 30 weightage

Part- A

III. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What is pruning?
2. Explain Quonset greenhouse.
3. Define Topiery
4. What is Air layering?
5. Enumerate the role of agri-horticulture societies in floriculture
6. What is aromatherapy?
7. Explain Terrarium
8. Explain dry flower preservation techniques

(5 x 1 = 5 weightage)

Part ìB

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Explain nipping and wiring technique used for creating a bonsai
10. Explain the role of trees in landscaping.
11. Enumerate the factors considered while selecting plants for landscaping
12. Discuss thermal comfort and its impact on work efficiency
13. Bring out the significance of French garden
14. Plan a layout for an informal garden
15. Explain value addition in floriculture
16. List out the routine duties in a garden

(5 x 2 = 10 weightage)

Part ñC

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
17. Discuss the significance and scope of floriculture industry.
18. What is flower trading? Briefly explain post harvest treatment and packaging of cut flowers, giving special emphasis to roses.
19. Explain the principles of external space organization in landscaping
20. Briefly explain various methods of plant propagation
21. “Garden components adds style to the garden” Discuss
22. Discuss lawn making as basic feature of garden.

(3 x 5 = 15 weightage)

HSRM4ET02

COMMERCIAL AND RESIDENTIAL INTERIOR SPACE DESIGNING

Time- 3 hours
Maximum- 30 weightage

Part- A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What is the importance of life space for personal development?
2. Briefly state the role of elements of design in space designing
3. Enlist the characteristics of public areas in commercial spaces
4. Differentiate between style and symbolism
5. Write on the factors to be considered while selection of furnishings for dining areas
6. Comment on the relevance of Anthropometric data in space designing
7. Discuss on the scope of Computer Aided Designing
8. Give an account on the following: Alpana, Rangoli, Kolam

(5 X 1 = 5 weightage)
Part ñB

I. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. Elaborate on the importance and scope of interior designing in modern era
10. Write about Ancient Indian Interior Designing
11. What are the factors influencing life space planning?
12. Critically evaluate the modern day furniture
13. What is Acoustics? How does it help in improving interior quality?
14. Describe the support spaces and systems in todayis homes
15. Give an account on modern materials and techniques for decorations for special occasions
16. Explain the different intercommunication systems

(5 X 2 = 10 weightage)

Part ñC

II. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
17. Elaborate on how the modern day designing is indebted to ancient architecture and design
18. How can you create and use illusions to enhance problem spaces in homes? Explain with suitable figures
19. What are display systems? Describe the role of display systems in improving the comfort level and productivity of commercial establishments.
20. Write about the different types of lighting. Elucidate on lighting for merchandising spaces
21. Develop and draw the design for childrenís room complete with an elevation including furniture details
22. Write about any three of the modern day designers with special reference to their commendable works

(3 X 5= 15 weightage)

HSRM4ET03

WOMENíS STUDIES

Time: 3 hours

Maximum -30 Weightage

PART ñ A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What are the legislations available to counteract domestic violence?
2. What do you understand by the term SHG?
3. What are the objectives of womenís studies education?
4. What are the support services for the elderly?
5. Write any one legislative measure available to check immoral traffic?
6. Write a note on child marriage?
7. What is the role of the State commission for women?

8. What do you mean by the term infanticide?

\[ (5x1=5 \text{ weightage}) \]

**PART-B**

II. **Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.**

9. Discuss the negative aspects of the Dowry system in India?

10. What are the common problems faced by women working in the unorganised sector?

11. Write a note on nutrition programmes for women?

12. Discuss the involvement of women in the political field?

13. What can be done to prevent sexual harassment at the work place?

14. Briefly explain the need for imparting education to all children. What are the provisions offered by the government for the same?

15. Comment on the portrayal of women in the media today?

16. As an educated woman, how can you render support to the women of your community?

\[ (5x2=10 \text{ weightage}) \]

**PART-C**

III. **Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.**

17. Define Legal Literacy. Bring to light the various legal provisions available with regard to marriage, divorce and dowry?

18. Briefly explain the various services for the protection and care of destitute women?

19. Discuss the need for empowerment. What steps will you take to empower todayís youth?

20. Write a note on the common problems faced by the senior citizens of Kerala?

21. Give an account of the health profile of Indian women? Mention the programmes by the government which focuses on the health of pregnant women?

22. Critically evaluate poverty alleviation programmes by the Government?
HSRM4ET04

ENTREPRENEURSHIP MANAGEMENT

Time- 3 hours

Maximum- 30 weightage

Part- A

Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define entrepreneurship and its importance.
2. What is Joint Stock Company?
3. Explain balance sheet.
4. What is auditing?
5. What is salesmanship?
6. What problems related to employment?
7. Explain the importance of advertising.
8. What are the objectives of KITCO?

(5 X 1 = 5 Weightage)

Part ñB

Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. What are the problems faced by small scale industries and its remedies?
10. What are the different accounting methods?
11. Explain the procedure for registration of a business.
12. Write notes on any 5 types of enterprises
13. Explain the contents of a project proposal
14. Describe the important documents of companies?
15. Elaborate on the factors affecting the entrepreneurís skill?
16. What is the importance of self employment for women? Suggest a few suitable self employment projects for them

(5X 2 = 10 Weightage)
Part III

Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. What is marketing? What are the different types of marketing techniques? Explain its merits and demerits.

18. Explain the concept of small scale industries. What are the steps in setting up a small scale industry?

19. Prepare a project proposal for starting a handicrafts unit in your locality.

20. Explain the objectives, functions, merits and demerits of any 3 agencies supporting entrepreneurship.

21. What are the factors effecting entrepreneurial growth?

22. What are the causes and remedies for unemployment in India?

(3 X 5 = 15 Weightage)

ELECTIVE I

DEVELOPMENTAL COMMUNICATION AND EXTENSION

Time- 3 hours

Maximum- 30 weightage

Part- A

IV. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What is meant by Research and development in ICT

2. Describe the role of coordination in extension.

3. Write short notes on oral presentation techniques

4. Enumerate the Sequencing / stacking / tracking.

5. What is reflective listening?

6. Explain ICT as an alternative extension approach.

7. What is DAVP?

8. Explain the types and roles of broadcast media

(5 x 1 = 5 weightage)
Part ñB

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. Discuss the Various ICT tools and their uses
10. Comment on the media and communication in Ministry of Agriculture
11. Explain different Techniques of facilitation
12. Enumerate all Principles of administration and organization
13. Bring out the difference in non development and development communication.
14. Enumerate on presentation skills
15. Discuss the principles for effective delivery
16. Describe Management of ICT.

(5 x 2 = 10 weightage)

Part ñC

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
17. Discuss the scope of Human Resource Development in extension organization.
18. Bring out the various steps in Extension Administration and Management.
19. Elaborate Communication for human development
20. Discuss the role of mass media in Extension
21. Explain the development problems of developing countries.
22. Bring out the various promotional efforts done by agencies for Development Communication

(3 x 5 = 15 weightage)

ELECTIVE II

TRAVEL AND TOURISM

Time- 3 hours Maximum- 30 weightage

Part- A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Define Travel motivators.
2. Explain international tourism
3. Elaborate WTO
4. Write short notes on Measurement of tourism
5. Explain Travel agencies and packages
6. What are travel guides?
7. What is IATA?
8. Define eco tourism?

(5 x 1 = 5 weightage)

Part II

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss interdisciplinary approaches to tourism
10. Comment on sustainable tourism development
11. What is medical tourism? Discuss its significance
12. Enumerate functions of Ministry of Tourism
13. Explain National Tourism Policy-2002
14. Tourism increase employment potential of people in India. Explain
15. Explain Tourism demand forecasting.
16. Enumerate major tourist attractions in India

(5 x 2 = 10 weightage)

Part III

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain elements and components of tourism.
18. Comment on the prospects of Tourism Industry.
19. Discuss five year plans with special reference to tourism development and promotion
20. Explain role of Government in promotion of tourism
21. Elaborate the role of hotel industries in tourism promotion
22. Comment of various tourism organisations in India and their performance

(3 x 5 = 15 weightage)
ELECTIVE III
PUBLIC HEALTH NUTRITION

Time: 3hrs
Maximum: 30 Weightage:

PART Ā A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Write a note on nutrition security.
2. Discuss aetiology of fluorosis.
3. Write a note on Iodine Deficiency disorders.
4. Discuss consequences of Iron Deficiency anaemia.
5. What is food fortification?
6. Write a note on zinc deficiency.
7. Discuss relation between infection and immunity.
8. What are vital health statistics?

(5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss in detail 24 hr dietary recall method.
10. Elucidate the principles of effective nutrition education.
11. List functions of the NFHS.
12. Discuss treatment of Protein Energy Malnutrition.
13. Discuss the National Nutrition Anemia Control Programme.
14. What are the indirect methods of assessment of nutritional status?
15. What is nutrition epidemiology?
16. Discuss the nutrition transition in India.

(5x2=10 weightage)
PART ðC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain in detail the National Nutrition Policy.

18. Write an essay on prevalence, aetiology, consequences and treatment of Iron Deficiency anaemia in India


20. Discuss in detail technical considerations and impact of food fortification.

21. Write an essay on the dual burden of malnutrition in India.

22. Write an essay on research methods in Public Health Nutrition.

(3x5=15 weightage)
INTRODUCTION

The P.G programme in Food Science and Nutrition is an interdisciplinary study of food science, macro and micronutrients, biochemistry, dietetics, public health nutrition, food safety and quality control and nutritional epidemiology. In the present scenario there is tremendous demand for trained personnel in the field of hospital dietetics and community nutrition. The master’s programme in the area of foods and nutrition assumes importance in concern to the following:

- To impart knowledge and develop capacities of the students through state of the art higher education in the areas of human nutrition viz. food science, food safety and quality, food product development.

- To develop students to become professionals who can effectively play a role in academics, research, food industry, training, extension and community service.

- To develop capacities and abilities to pursue higher education and research in food science and human nutrition.

- Gain insight into National Nutrition Programmes and their management and develop skills in organizing and evaluating nutrition projects in the community.

An integration of theory, practicals, internship and hands on training as instructional methods aims at equipping the students with necessary proficiencies for a wide variety of career options as:

- Member of teaching faculty in higher education and curriculum planners and nutritionists

- Research assistant/associates in institutes and undertaking research programmes in nutrition and health

- Project officer/co-ordinator of the health and nutritional development programmes of governmental and non-governmental organisations

- Dietitians in hospitals; diet consultants in hostels, industrial canteens etc.

- Food quality controllers in food processing units

- Project officers in nutrition programmes - FAO, WHO, UNICEF

- Nutritionists in food industries
• Self employment opportunities

ELIGIBILITY

For admission to the post graduate programme in Food Science and Nutrition (Branch X C) the applicant must have passed B.Sc. programme with specialisation in Food and Nutrition, Food Science and Quality Control, Clinical Nutrition and Dietetics, Food Technology or Home Science/Family and Community Science MODEL I and II with not less than 55% marks in part II. Graduates in Biochemistry or Zoology with P.G. diploma in Nutrition and Dietetics of any statutory university recognized by M.G. University are also eligible provided that such candidates should have not less than 55% of marks in part III at the graduation level.

In addition to the existing criteria a BSc. Degree holder of Food Service Management and Dietetics is also eligible. Weightage will be given to the above mentioned qualifying degrees. Degree holders of Zoology, Microbiology, Food Microbiology, Chemistry, Biotechnology with PG Diploma in Nutrition and Dietetics/Open Course in Nutrition for wellness/Dietetics and BSc. Nursing are also eligible.
## BRANCH X C
### FOOD SCIENCE & NUTRITION

### COURSE OUTLINE
### TOTAL CREDITS-80

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| II       | HSFN2CT06| Clinical Nutrition and Dietetics                      | 5                   | 4      | 18           |
| II       | HSFN2CT07| Advanced Nutrition II                                 | 5                   | 4      | 18           |
| II       | HSFN2CT08| Food Service Organisation and Management              | 5                   | 4      | 18           |
| II       | HSFN2CT09| Research Methods and Statistics                       | 5                   | 4      | 18           |
| II       | HSFN2CT10| Dietetics and Food Service Management                 | 5                   | 2      | 18           |

| III      | HSFN3CT11| Food Science and Technology                           | 5                   | 4      | 18           |
| III      | HSFN3CT12| Food Biotechnology                                   | 5                   | 4      | 18           |
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| IV       | HSFN4ET01| Public Health Nutrition                              | 5                   | 4      | 26           |
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|          | DISSESTATION|                                                   |                     |        |              |
|          | VIVA VOCE   |                                                    |                     |        |              |

Elective 6- Food Processing and Technology,

Elective 7- Food Product Development and Marketing,

Elective 8- Food Safety and Quality Control,  Elective 9- Nutritional Epidemiology
HUMAN PHYSIOLOGY

Course Code: HSFN1CT01
Teaching hours: 5hrs/week
Credit: 4

Objectives:

• To advance their understanding of some of the relevant issues and topics of human physiology.

• To enable students to understand the integrated function of all systems and the grounding of nutritional sciences in physiology.

• To understand alterations of structure and function in various organs and systems in disease conditions,

Course Outline

Module 1: General principles of Physiology and Cardiovascular system


Module 2: Digestive System


Module 3: Excretory System

Structure and function of excretory system, urine formation, composition of normal and abnormal urine, role of excretory system in homeostasis, Renal Function Tests, Fluid balance, Regulation of body temperature, Role of skin as an excretory organ.

Module 4: Respiratory System

Organs, Structure and Functions, Mechanism of respiration, Neural and chemical control of respiration.
Module 5: Nervous System


Module 6: Glands and Endocrine System


Module 7: Immune System


Module 8: Skeletal and Lymphatic System

Bone architecture and physiology, bone growth, teeth, Nutritional Rickets, Bone Calcium with ageing, Specific nutrients and their effect on bone health, Lifestyle factors and Bone Health. Lymph, Lymph glands and Functions, Spleen- Structure and Functions.

References:

ADVANCED NUTRITION -I

Course Code: HSFN1ICT02

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To have an in-depth knowledge of the physiological role of macronutrients and macrominerals and how they act and interact to maintain positive health and ward off diseases.

- To familiarise with the recent advances in nutrition and apply this knowledge in planning for public Health Programmes.

Course Outline

Module 1: Body Composition

Introduction, five levels of body composition, body compartments, Estimation of body composition (direct and indirect methods), Body Composition changes during childhood, adolescence and elderly, Status/Length, Weight, Circumference measurements, Body Mass Index, skinfold, leg length.

Module 2: Energy

Some basic concepts, definition and conceptualisation of energy balance, Energy Intake, Sources, Regulation of food intake and factors influencing intake, Energy Expenditure, Components, Factors affecting energy expenditure, BMR, Thermic effect of Food and Energy expended in physical activity, methods of estimating energy expenditure and requirements. Factorial computation of energy expenditure of Indian Adult Population, RDA. Energy Imbalance-Over and Under nutrition, Classification, Etiology, Functional Consequences.

Module 3: Carbohydrates

Nutritional classification, Significance and changing trend in carbohydrate intake, Digestion, absorption, transport, distribution, storage and excretion. Glycemic index carbohydrates, metabolic utilisation and regulation of blood glucose concentration, Diabetes mellitus, Non glycemic carbohydrates- Fibre, components, properties, Physiological and metabolic effects, Nutritional and health significance, requirements. Resistant starch, factors influencing resistant starch content in foods and potential health benefits. Fructooligosaccharides and High Fructose Corn Syrup. Glycemic Index and Glycemic Load. Factors affecting GI. Carbohydrates and dental caries.

Module 4: Proteins

Overview, Essentiality, Classification and Functions of Amino acids, Functional categories of proteins. Digestion, absorption and transport of proteins, absorption and transport of
amino acids. Evaluation of protein nutritional quality, Major sources, Improvement of quality of proteins in the diet, Turnover of proteins and amino acids, Amino acids as precursors of physiologically important nitrogen compounds, Protein and essential amino acid requirements of Indian adults.

**Module 5: Lipids**

Classification and Functions, triglycerides, fatty acids, phospholipids and sterols, Digestion, absorption, transport and storage, Role of n 3 and n 6 in health and disease, choice of cooking medium in the context of n3 n6 fatty acid ratio in Indian Diets, functions of essential fatty acids, functions of eicosanoids. Role of lipids and lipoproteins in atherogenesis, Recommendations of FAO, WHO on dietary fats, sources of fats in Indian Diets, Invisible and Visible fats, Recommended intake of dietary fat for Indians, fat intake in Indians-An Update.

**Module 6: Macrominerals**

Introduction and general functions of Minerals, Sources, absorption and excretion, assessment of mineral status and requirements, deficiency, toxicity of Calcium, Phosphorous, Magnesium, Sodium, Potassium, Chloride and Magnesium.

**References**


- Maurice B Shils, Moshe Shike, A. Catherine Ross, Benjamin Cabellero, Robert J Cousins (2006), Modern Nutrition in Health And Disease, Lippincott Williams Al Wilkins.


- Nutrient Requirements And Recommended Dietary Allowances For Indians A Report Of The Expert Group Of The Indian Council Of Medical Research ICMR 2010.

**NUTRITIONAL BIOCHEMISTRY**

**Course Code:** HSFN1CT03

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives**

- To impart advanced comprehensive concepts in the area of carbohydrate, protein and lipid metabolism
• To understand the interrelationship between different metabolic pathways in the body.

**Course Outline**

**Module 1: Carbohydrates**

Structure, Classification and Properties of Monosaccharides, Disaccharides and Polysaccharides. Intermediary Metabolism- Glycolysis, TCA Cycle, HMP Shunt, Gluconeogenesis, Glycogenesis, Glycogenolysis. Regulation of Carbohydrate metabolism at Organ, Enzyme and hormonal level. Disorders of Carbohydrate metabolism—galactosemia, glycogen storage disease, pentosuria, abnormal levels in blood glucose.

**Module 2: Biological Oxidation**

Energy release and consumption in chemical reactions, High energy phosphate bond, Coupled reactions in transfer of energy, Electron Transport Chain and Oxidative Phosphorylation

**Module 3: Proteins**

Structure and Classification of Amino acids, Peptide bond formation, Structure of Proteins, Protein Metabolism ñTransamination, Deamination and Urea Cycle, Amino acid pool, Regulation of Protein metabolism at Organ, Enzyme and Hormonal level. Protein biosynthesis. Inborn errors of metabolism—phenyl ketonuria, cystinuria, albinism, alkaptonuria, maple syrup disease.

**Module 4: Lipids**


**Module 5: Nucleic Acids**

Composition and Classification, Structure and properties of DNA and RNA. DNA replication, DNA mutation and repair. Metabolism of Purines, Metabolism of Pyrimidines. Disorders of nucleic acid metabolism- Gout, aciduria, xanthinuria

**Module 6: Vitamins and Minerals**

Major vitamins with coenzyme functions, mode of action of Thiamine, riboflavin, niacin, pyridoxine, biotin and folic acid. Interactions of nutrients- Carbohydrate, protein and fats on vitamins; macrominerals with other nutrients; interaction of microminerals.
References:

- Champe CP and Harvey AR (1987) Lippincott’s Illustrated Reviews.

NUTRITION THROUGH LIFE CYCLE

Course Code: HSFN1CT04

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To enable students to understand the basics of human nutritional requirements and the role of nutrition in different stages of the life cycle.

Course Outline

Module 1: Understanding Nutrition

Methods for studying human nutritional requirements, Principles of computation of RDA for Indian adults by ICMR – Energy, Protein, Fats, Mineral and Vitamin requirements (Calcium, Phosphorus, Iron, Zinc, Thiamine, Folic acid, Vitamin C, Vitamin A, Vitamin D) and Dietary Fiber.
Module 2: Nutrition in Pregnancy

Physiological stages of Pregnancy and nutrition demands, Pregnancy weight gain, Principles of estimating nutritional needs in Pregnancy, Physiological adjustments that may affect nutrient needs of pregnancy, Effect of Under nutrition on Mother and Child Health, Diet in Pregnancy, Adolescent Pregnancy, Pregnancy and AIDS

Module 3: Nutrition in Lactation


Module 4: Nutrition in Infancy

Pre Term and Low Birth Weight Infants-Nutritional management, Feeding of Pre Term and Low Birth Weight Infants, Importance of Good Weaning, ARF, Growth monitoring

Module 5: Nutrition in Childhood

Normal Pattern of Growth and Development, Norms/ Standards for Growth in children, Nutritional requirements of children, Malnutrition and Mental Development, PEM- Types, Etiology, Classification, Nutritional Management

Module 6: Nutrition in Adolescence

Normal Pattern of Growth and Development, Nutritional requirements of adolescents, Eating Disorders in Adolescents

Module 7: Geriatric Nutrition

Socio economic and psychological factors of elderly, Physiological changes in old age affecting nutrition, Nutritional requirements and food modifications in old age.

Module 8: Nutrition in special events

Space nutrition, High altitude nutrition , Nutrition in Cold/Polar environments.

References:

- ACC/SCN Reports
• International Child Health: A Digest of Current Information


• Nutrient Requirements and Recommended Dietary Allowances for Indians-A report of the expert group of the ICMR. 2010.


ADVANCED NUTRITION AND FOOD ANALYSIS - PRACTICALS

Course Code: HSFN1CP05

Teaching hours: 5hrs/week

Credit: 2

Objectives

• To enable students to get practical experience in lab and develop skill in Food Analysis

• To gain knowledge in applying concepts of Advanced Nutrition.
A. ADVANCED NUTRITION

i. Energy
   • Calculating BMR(Kymograph method),
   • Calculating energy balance
   • Calculating energy expenditure

ii. Carbohydrates
   • Percent energy of CHO
   • Survey high fibre products in the market.

iii. Protein
   • Chemical score computation
   • NDP cal%
   • Evaluation of protein quality
   • Planning suitable dishes for supplementary feeding programmes based on protein quality.

iv. Balance Studies
   • Calcium balance study
   • Nitrogen balance study

B. FOOD ANALYSIS

Estimation of the following in food samples:

i. Total Ash

ii. Moisture

iii. Fat

iv. Crude Fibre

v. Energy(Bomb calorimeter)

vi. Protein(Kjeldahlís method)

vii. Iron(Colorimeter)

viii. Phosphorous(Colorimeter)
ix. Vitamin C

x. Total carotene (Spectrophotometry)

xi. Sodium (Flame photometry)

xii. Potassium (Flame photometry)

xiii. Calcium (Macro method)

xiv. Determination of Ph; Preparation of chloride and phosphate buffers.

PROJECT: Project Report on:-

An experimental study based on any topic within the syllabus

OR

An internship in Food Analysis or Advanced Nutrition at a laboratory/industry

SEMESTER II

CLINICAL NUTRITION AND DIETETICS

Course Code: HSCD2CT06

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.

- To know the effect of various diseases on nutritional status and nutritional and dietary requirements.

- To be able to recommend and provide appropriate nutritional care for prevention and treatment of various diseases.

Course Outline

Module 1: Diet therapy and Nutritional Care in Disease

The Nutritional Care process, Care plan, Assessment and therapy in patient care, Implementation of Nutritional care. Nutritional Intervention and Diet modifications-types of hospital diets. Diet prescriptions and psychology of feeding the patient. Nutrition in
Physiological Stress- Physiological stress and its effect on body, nutritional implications. Fevers and infections, Surgery and Management of Surgical Conditions, Parenteral Nutrition - Types, mode, and composition of feeds, Tube feeding, Enteral Nutrition - Routes, modes, composition, care to be taken during feeding, Dietary guidelines for Burns, Nutritional Management of Patients with HIV, AIDS.

Module 2: Diseases of the Gastro Intestinal system


Module 3: Diet in Diseases of Liver, Pancreas and Biliary System

Nutritional care in Liver Disease- Hepatitis, Cirrhosis and Hepatic Encephalopathy. Nutritional care in Pancreatitis-Acute and Chronic Biliary Dyskinesia, Cholelithiasis, Cholecystitis, Cholecystectomy.

Module 4: Diet in Diabetes Mellitus


Module 5: Diseases of the Circulatory System

Atherosclerosis - Etiology, risk factors, diet. Hyperlipidemias, Brief review of Lipoproteins and their metabolism, Clinical and nutritional aspects of Hyperlipidemias, Classification and Dietary care of Hyperlipidemias, Nutritional care in cardiovascular disease (Ischemic heart disease, Pathogenesis of sodium and water retention in Congestive Heart Disease. Acute and Chronic Cardiac Disease, Acute - Stimulants, food and consistency, Chronic - compensated and decompensated states, Sodium Restriction in Cardiac Diseases, Diet in Hypertension - Etiology, Prevalence, Renin-Angiotensin mechanism, Salt and Blood pressure, Drugs and Hypertension, Cerebrovascular diseases and diet in brief.

Module 6: Diet in Renal Diseases


**Module 7: Nutrition in Cancer**


**Module 8: Interactions between Drugs, Food and Nutrients**

Effect of drugs on Food and Intake, Nutrient Absorption, Metabolism, and Requirements, Drugs affecting intake of food and nutrients, Absorption, Metabolism and excretion, Nutritional status, Summary of action of some common drugs, Effect of food, nutrients and nutritional status on absorption and metabolism of drugs.

**References**


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### ADVANCED NUTRITION -II

**Course Code:** HSFN2CT07  
**Teaching hours:** 5hrs/week  
**Credit:** 4

**Objectives**

- To have indepth knowledge of the physiological role of microminerals and vitamins and how they act and interact to maintain positive health and ward off diseases.

- To familiarise with the recent advances in nutrition and apply this knowledge in planning for public Health Programmes.
Course Outline

Module 1: Microminerals


Module 2: Fat Soluble Vitamins

Vitamins- An overview, Introduction, Food sources, absorption, transport, storage, excretion, functions, deficiency, toxicity, requirements and assessment of vitamin status- Vitamin A, D, E and K.

Module 3: Water Soluble Vitamins

Introduction, Food Sources, Absorption, Storage, Excretion, functions, deficiency, requirements and assessment of vitamin status of Thiamine, Riboflavin, Niacin, Pyridoxine, Folate, Cyanocobalamin and Ascorbic Acid.

Module 4: Compounds other than nutrients with health benefits.

Carnitine, Homocysteine, Cysteine, Taurine, Glutamine and Arginine. Phytochemicals- Phenol compounds, carotenoids, phytosterols, sulfur containing compounds.

Module 5: Water

Functions, distribution, regulation of water balance, water intoxication and dehydration.

Module 6: Free Radicals and antioxidants.

Free radicals and Reactive Oxygen Species (ROS), Role of antioxidants.

References


- Maurice B Shils, Moshe Shike A, Catherine Ross, Benjamin Cabellero, Robert J Cousins, 2006, Modern Nutrition in Health and Disease Lippincott Williams Wilkins.


• Sheila Chander, Vir Woodhead (2011) Public Health Nutrition in Developing Countries Publishing India, Part I & II.

FOOD SERVICE ORGANISATION AND MANAGEMENT

Course Code: HSFN2CT08

Teaching hours: 5hrs/week

Credit: 4

Objectives

• To understand the organisation of food service establishments and management of human, material and financial resources
• To be familiar with various concepts involved in quantity and quality food production and service
• To understand the need for efficient personnel management in the food industry

Course Outline

Module 1: Development, Scope and Types of Food Service Establishments

History, scope and development of food service institutions, factors affecting development, recent trends, Types of food service establishments (commercial and non-commercial) and their characteristic features. Planning for a food service Unit - Planning, Investment, Project Report, Registration (License and Inspection)

Module 2: Food Service Organisation and Management


Module 3: Quantity Food Preparation

Methods of purchase (formal and informal), Identifying needs, Selection, Receiving, Storage types, Issuing, Menu Planning- Importance, Functions of Menu, Types, Steps in Menu Planning, Requisites in Designing a Menu Card, Sequence of courses in Indian and Continental Menu, Quantity food preparation- food production systems management, Production control - Standardisation of recipes, Stepping up of recipes, portion control, Quality control in food preparation. Food Laws
Module 4: **Quantity food service**

Food Service Delivery Systems (Centralised and Decentralised)Type of food service systems(conventional, commissary, ready prepared, assembly), Service Styles ( table, counter, tray, silver, plate, cafeteria, buffet). Specialized forms of service (hospital, airline, rail, home deliver, catering and banquet, room and lounge service).

Module 5: **Table Setting and Arrangement**

Indian and Western Styles of Table Setting, Table Appointments, Napkin folding styles, Flower arrangement, Table Etiquettes.

Module 6: **Organisation of Space and Equipment**

Design and layout of kitchen, Types of kitchens, storage and service areas, Determining Work Centres. Equipments ñ types, planning, factors affecting selection and purchase.

Module 7: **Financial Management**

Book keeping(Single and Double entry system), Books of Accounts, Journal, ledger, trial balance, balance sheet, Type and Behaviour of costs, profit analysis, Records and Controls, Budget, Food cost control methods.

Module 8: **Personnel Management**

Styles of Leadership, Effective Leadership and Communication, Staff Planning and Management, Employment, Staff Recruitment, Selection, Placement, Induction, Training, Evaluation and Appraisal, Labour laws. Sanitation and Safety in food service industry-Personnel hygiene, Safety at work, measures adopted

**References**

- Mahmood A. Khan,(1987), ëFood Service Operationsí, AVI, U.S.A.


RESEARCH METHODS AND STATISTICS

Course Code: HSFN2CT09

Teaching hours: 5hrs/week

Credit: 4

Objectives

• To understand the significance of research methods and statistics in Home Science research.

• To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.

• To understand and apply the appropriate statistical techniques to analyse numerical data and draw inferences.

Course Outline

Module 1 ñ Introduction to Research

Definition, Objectives and Characteristics of research, Types of Research ñ Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research.

Module 2 ñ Identification of Research Problem

Sources of research problem, Criteria for the selection of research problem. Research design, Rationale, Statement of problem, Setting objectives, Definition of concepts, operational definition, variables ñ independent and dependent, control and intervening variables, limitations and delimitation. Hypothesis ñ Meaning and importance, types of hypotheses.

Module 3 ñ Sampling

Population and Sample, Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non sampling errors.
Module 4 ñ Research methods and tools


STATISTICS

Module 1 - Descriptive Statistics:

Measures of Central Tendency ñ Mean, Median, Mode; Partition Values ñ Quartiles, Deciles and Percentiles, Measures of Dispersion ñ Range, Quartile deviation, Standard deviation. Absolute and Relative measures of dispersion, Coefficient of variation.

Module 2 - Correlation and Regression:

Correlation and Regression. Scatter diagram, Correlation, Coefficient of Correlation ñ Karl Pearson and Rank Correlation Coefficients. Interpretation of Calculated coefficients. Concept of Regression, Regression Lines and their estimation.

Module 3 - Concept of Probability and Random Variable.


Module 4 - Sampling distributions

Sampling distributions, F and $\chi^2$ distributions. Central Limit theorem, Standard error and its importance and applications. Testing of Hypothesis ñ Hypothesis, Null and Alternative hypothesis, Type I and Type II errors, Significance Level and size of test, Critical Region, Testing Procedure concept of P Value in testing. Large and small sample tests ( z, t, f and $\chi^2$statistics)

Related Experience

A five day training in using SPSS or similar package used in statistical analysis of data.

References


**DIETETICS AND FOOD SERVICE MANAGEMENT-PRACTICALS**

**Course Code:** HSFN2CP10

**Teaching hours:** 5hrs/week

**Credit:** 2

**Objectives**

- To understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.
- To know the effect of various diseases on nutritional status and nutritional and dietary requirements.
- To be able to recommend and provide appropriate nutritional care for prevention and treatment of various diseases.
- To get a practical experience in organising and managing quantity food production and service.

**Course Outline**

**Module 1**
Market Survey of commercial nutritional supplements and nutritional support substrates. Compilation of market survey information in the form of a report.

**Module 2**
Planning and Preparation of Therapeutic Diets for the Following Conditions

1. Diabetes mellitus
2. Atherosclerosis
3. Chronic Renal Failure
4. Glomerulonephritis
5. Hepatitis
6. Cirrhosis
7. Hepatic Encephalopathy
8. Peptic Ulcer
9. Gluten Sensitive Enteropathy
10. Hypertension
11. Obesity
12. Underweight

Module 3
Commonly used tests for diagnosis of various diseases, Interpretation of patient data and Diagnostic tests and drawing up of patient diet prescription using a case study approach.

Module 4
Preparation of diet counselling aids for common disorders.

Module 5
One month Internship in a well established Dietary Department of a Reputed Hospital with Compilation of Case study Reports of 3 to 5 patients during the period of Internship.

FOOD SERVICE MANAGEMENT

Module 1
Quantity Food Preparation and Service
- Selection and Standardisation of Recipes based on a theme
- Stepping up of standardized recipes
- Planning, Purchasing, Preparation and Service of Food for 30-50 portions
- Cost and profit analysis

Module 2
One week Internship in any Food Service Establishment with special focus on Food Production and F & B service departments to study the following aspects;

1. Layout and design of the food service establishment.
2. Work Areas, work centres, flow of work, work simplification techniques.
3. Equipment types, design and layout.
4. Food purchasing, selection and storage practices
5. Costing, pricing and profit calculation.
7. Quality control in various stages of food service.
SEMESTER III
FOOD SCIENCE AND TECHNOLOGY

Course Code: HSFN3CT11

Teaching hours: 5hrs/week

Credit: 4

Objectives:
- To understand the principles and chemistry of food
- To apply theoretical knowledge in various preparations

Course Outline

Module 1: Introduction to Food Science as a discipline and modern developments

Module 2: Food Polysaccharides and their Applications
Classification: Sugars- Chemistry, Functional role of sugars in foods, sweeteners, food Polysaccharides and their applications- native and modified starches, food hydrocolloids, non-starch polysaccharides; algal polysaccharides; seed gums, exudates gums, microbial polysaccharides.

Module 3: Proteins
Classification, Structure and functional properties, chemical and enzymatic modification ñ denaturation, non-enzymatic, textured proteins; protein isolates, concentrates, protein hydrolysates and their applications.

Module 4: Fats and Oils (Lipids)
Classification, Functional properties of lipids, deteriorative changes in fats and oils, Antioxidants

Module 5: Enzymes and Pigments
Applications of Enzymes in Food Industry, Natural Colours Used in Foods, Novel Sources of Natural Colourants, Stability of Natural Colourants in Foods.

Module 6: Colloids, Colloid Systems and Applications
Classification of Colloidal Systems, Properties of Sols, Gels, Foams and Emulsions.

Module 7: Methods of Food Processing
Traditional Methods, Modern techniques- thermal, dehydration, concentration, freezing, microwave processing, irradiation, fermentation, deep fat frying.
Module 8: Primary processing of cereals, pulses and oilseeds

Chemical, Physical and Nutritional Alterations Occurring in Foods during Processing and Storage ñ Cereals and Legumes, Nuts, Oilseeds, Fruits and Vegetables, Milk and milk products, Meat, Poultry, Fish, Egg and Spices

Module 9: Product Development and Evaluation

Need for product development, Steps in development; Evaluation of food Quality by sensory and objective methods

References

- Peckham, G and Freeland-Graves, G.H (1979): Foundations of Food Preparation

Journals

- Journal of Food Science
- Advances in Food Research
- Journal of Food Science and Technology
- Cereal Science
- Journal of Dairy Science

FOOD BIOTECHNOLOGY

Course Code: HSFN3CT12

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the application of biotechnology in the field of Food and Nutrition
- To be aware of the growing importance of Biotechnology in areas related to healthcare.
Course Outline

Module 1: Introduction to Biotechnology
Definition and pathways of biotechnological development, Application of genetics to food production, Genetically Modified foods

Module 2: Molecular Aspects of Nutrition
Core concepts in molecular biology - The genome, the genetic code and gene expression. The Human Genome Project. Research tools to investigate molecular aspects of nutrition - Animal models, Tissue cultures, molecular cloning, PCR.

Module 3: Fermentation Systems
Fermentation ñ objectives, process of fermentation. Bioreactors/ fermenters, Microbial products - Amino acids, Vitamins and Lipids

Module 4: Plant and Animal Culture
Plant cultures - Tissue culture, Lab, Media, Techniques and applications, Animal cultures - cell lines, media, techniques and applications, Plant and Animal Cloning

Module 5: Regulatory Aspects in Biotechnology
Ethical issues in biotechnology, Intellectual Property Rights

Module 6: Enzyme Technology
Soluble enzymes and Immobilized enzymes; Methods of immobilization, Application of enzymes in food industries.

Module 7: Microbial Production of Foods and Beverages
Fermented food and alcoholic beverages, Single cell protein, Mushroom culture, Fermented soya based foods, Fermented meat products, Vinegar production

Module 8: Functional Foods
Definition, classification, Probiotics ñ important features of probiotic micro-organisms. Health effects, mechanism of action, probiotics in various foods ñ fermented milk products, non- milk products etc. Prebiotics ñ definition, chemistry, sources, bio-availability, effects on human health and applications in risk reduction of diseases (non-digestible carbohydrates/oligosaccharides, dietary fibre, resistant starch, gums)

Module 9: Xenobiotics
Definition, components and drug interactions, Industrial chemicals and overall metabolic fate of xenobiotics

References:
Course Code: HSFN3CT13

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To gain an insight of the types and role of micro-organisms affecting man and the environment
- To understand the importance of micro-organisms in food spoilage
- To learn the advanced techniques used in food preservation
- To understand the legal procedures adopted in various operations to prevent food borne disorders and legal aspects involved

Course Outline

Module 1: History, scope and importance of food microbiology, Economic Importance of moulds, yeast and bacteria

Module 2: Micro-organisms in food

Primary sources in foods, biochemical activities. Micro-organisms found in air, soil, water, plants and animals. Normal flora of skin, nose, throat, GI tract.

Module 3: Factors affecting the survival and growth of micro-organisms in food

Intrinsic and extrinsic parameters that affect microbial growth (Nutrient, Ph, buffer, anaerobic/aerobic conditions, moisture content, temperature, gaseous atmosphere)

Module 4: Microbiological examination ñ Methods of isolation and detection of micro-organisms or their products in foods; Conventional methods; Rapid methods (Newer techniques)

Module 5: Spoilage of different groups of foods

Cereals, vegetables and fruits, meat, eggs, poultry, fish, milk and milk products, canned foods.

Module 6: Food Preservations and applications to different types of foods

Physical methods- Dehydration, low temperature, high temperature, irradiation, high pressure, aseptic packaging, MAP, Chemical preservatives, natural antimicrobial compounds, Biological based preservation systems
Module 7: Food borne infections and diseases

Significance to public health, food hazards and risk factors, bacterial and viral food borne-diseases, mycotoxins (Bacillus, Campylobacter, Brucella, Staphylococcus, Clostridium, E.Coli, Aeromonas, Vibrio Cholera, Listeria, Mycobacterium, Salmonella, Shigella), Reporting of a food borne outbreak.

Module 8: Quality Control/Quality Assurance

Legislation for food safety- natural and international criteria, sampling schemes, records, risk analysis, QC-microbial source, code, Indicators of food safety and quality

Microbiological criteria of foods and their significance; HACCP and food safety in controlling microbial hazards

Module 9: Toxicants and Contaminants

References

- Ramesh K. Vijaya (2007), Food Microbiology, MJP Publishers,
SCIENTIFIC WRITING AND PROJECT FORMULATION

Course Code: HSFN3CT14

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To be able to appreciate and understand importance of writing scientifically.
- To develop competence in writing and abstracting skills.

Course Outline

Module 1: Scientific writing as a means of communication

Different forms of scientific writing. Articles in journals, Research notes and reports, Review articles, Monographs, Dissertations, Bibliographies, Book chapters and articles.

Module 2: How to formulate outlines

The reasons for preparing outlines: as a guide for plan of writing, as skeleton for the manuscript, Kinds of outlines, Topic outlines, Conceptual outline, Sentence outlines, Combination of topic and sentence outlines

Module 3: Drafting titles, Sub titles, tables, illustrations

Preliminary processing of data, Classification and organization of data, Objectives of classification, Tabulation of data, General rules of tabulation. Tables, Parts of a table, Types of tables. Representation of data and Significance of diagrams and graphs, Types of diagrams and graphs, advantages and limitations

Module 4: The writing process

Getting started, Use outlines as a starting device, Drafting, Reflecting, re-reading; Checking organization, Checking headings, Checking content, Checking clarity; Checking grammar, Brevity and precision in writing, Drafting and re-drafting based on critical evaluation

Module 5: Parts of dissertation/research report/article

Introduction, Review of literature, Methods, Results and discussion, Summary and abstract, References. Ask questions related to: content, continuity, clarity, validity, internal consistency and objectivity during writing each of the above parts.

Module 6: Writing for Grants

The question to be addressed, Rationale and importance of the question being addressed, Empirical and theoretical framework, Presenting pilot study/data or background information, Research proposal and time frame; Speciality of methodology, Organization of
different phases of study, Expected outcome of study and its implications, Budgeting, Available infra-structure and resources, Executive summary

References


**FOOD SCIENCE AND MICROBIOLOGY - PRACTICALS**

**Course Code:** HSFN3CP15

**Teaching hours:** 5hrs/week

**Credit:** 2

**Objectives**

- To gain knowledge on basic and applied aspects of food science and properties of foods
- To be familiar with tests for properties, standards and purity of various foods

To know the various tests and standards for quality assessment and food safety
Course Outline

A. Food Science

i. Cereals and Flours

- Gelatinisation temperature of flours
- Determination of gluten content
- Determination of alcoholic acidity in a given sample of flour

ii. Fats And Oils

- Determination of Acid value, Free fatty acids
- Iodine Number
- Saponification Number
- Determination of peroxide value
- Purity tests of oils and fats

iii. Milk

- Physical characteristics and additives
- Fat content
- SNF%
- Total Solids
- Protein content

iv. Honey

- Determination of total reducing sugar
- Determination of sucrose content
- Adulteration with commercial sugar

v. Sensory Evaluation of Foods

- Primary taste test
- Sensory profiling of a new product


vi. **Colloidal Chemistry**

- Preparation of a stable emulsion
- Demonstration of effect of foaming in preparation of soufflé
- Additives on egg white foaming

vii. **Fruits and Vegetables**

- Peroxidase inactivity test
- Method of blanching
- Moisture removal techniques
- Rehydration test for dried samples

**Microbiology**

- Preparation of common lab media and special media for cultivation of bacteria, yeasts and moulds
- Staining and identification of bacteria (gram staining, acid-fast, spore, capsule), yeasts and moulds
- Cultivation and identification of importance moulds and yeasts (slides and mould culture)
- Isolation of microorganisms
- Bacteriological analysis of processed and unprocessed foods
- Bacteriological analysis of water and milk

**PROJECT:**

- **Project Report on**
  - An experimental study based on any topic within the syllabus
  
  OR

  - An internship in Food Science or Microbiology at a laboratory/industry
SEMESTER IV

PUBLIC HEALTH NUTRITION

Course Code:  HSFN4ET01
Teaching hours: 5hrs/week
Credit: 4

Objectives

• To develop a holistic knowledge base and understanding of the nature of nutritional problems and their prevention and control for the disadvantaged and upper socioeconomic strata in society.

• To understand the causes/determinants and consequences of nutritional problems in society.

• To be familiar with various approaches to nutrition and health interventions programmes and policies.

Course Outline

Module 1:  Food and Nutrition Situation in India

Hunger in India, India state Hunger Index(ISHI) Food and Nutrition security, production and availability of foods in India, consumption pattern, trends in nutrient intake and nutritional status

Module 2:  Principles of epidemiology and epidemiological methods

Introduction to epidemiology, aims, classifying epidemiological study methods, nutrition epidemiology and public health nutrition.

Module 3:  Assessment of nutritional status in community setting


Module 4:  Epidemiology of Nutritional disorders

Prevalence, Aetiology, Consequences and treatment of PEM-Clinical syndromes, prevention of malnutrition, managing PEM

Vitamin A Deficiency-Consequences, epidemiology, aetiological factors, intervention strategies for preventing Vitamin A deficiency disorders (VADD)
Iron Deficiency Anaemia-Epidemiology, Prevalence, aetiological consequences, approaches for prevention and control of anaemia, National Nutritional Anaemia Control Programme.

Iodine Deficiency Disorders-Epidemiology, aetiological factors, consequences of IDD, IDD as a public health problem, elimination of IDD-An International focus, National Iodine Deficiency Disorders Control Programme Of India

Zinc Deficiency-Epidemiology, public health significance, clinical manifestations of zinc deficiency, Zinc supplementation in pregnancy, Flourosis

**Module 5: Organisations and Programmes in the field of nutrition monitoring and Interventions**

Brief outline of WHO, FAO, UNICEF, CARE, NFHS, NNMB, ICDS, ICMR, ICAR

**Module 6: Nutrition Education**

Definition, Significance, Design and implementation of NHE Programme Receiver, Communicator, Message Channel, Theories of Nutrition Education, Evaluation- Purpose and Types of evaluation.

**Module 7: Food Fortification**

Technical considerations, technology for food fortification, fortificants, planning food fortification intervention, fortification of selected food items

**Module 8: Nutrition related non communicable chronic disorders**

Prevalence at global and national level, cardiovascular disease, hypertension, obesity, diabetes mellitus, cancer. Risk factors for Non Communicable Diseases-Community based programmes for primary prevention, Health education and role of mass media, secondary and tertiary prevention.

**REFERENCES**

- Modern Nutrition in Health and Diseases edited by Maurice B Shils, Moshe Shike, A, Catherine Ross, Benjamin Cabellero, Robert J Cousins, Lippincott Williams & Wilkins 2006.


- Public Health Nutrition in Developing Countries Edited by Sheila Chander Vir Woodhead Publishing India. Part I & II. 2011
BIOPHYSICAL TECHNIQUES

Course Code: HSCD4ET02

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To introduce students to various modern instrumental techniques in nutrition research.
- To understand the applications, strengths and limitations of biophysical methods.

Course Outline

Module 1: Chromatography

Principles and applications of chromatography — Paper, Ion exchange, Adsorption, Thin layer gas chromatography, HPLC, Gel filtration of biologically important compounds.

Module 2: Electrophoresis

Principles and applications of electrophoresis — Paper, Starch gel, Agar gel, Polyacrylamide gel, Moving boundary electrophoresis, Immuno electrophoresis, Iso electric focusing.

Module 3: Instruments for Food Science applications.

Principles and applications of measurement of viscosity, consistency, texture. Rheological properties of food, Relative humidity and Water activity. Measurement of specific gravity, freezing point, melting point, refractive index, measurement of colour, gel strength, densitometry, refractometry & polarimetry.

Module 4: Enzymes

Introduction, classification of enzymes, Mechanism of action, Factors affecting enzyme activity, enzyme inhibition — competitive, non-competitive and uncompetitive inhibition, Clinical applications of enzymes, Enzyme kinetics, Michaelis Menten equation. Coenzymes and role of coenzymes in enzyme catalysis, ELISA

Module 5: Basics of Instrumentation — Physico-chemical principles and methodology


Module 6: Radioactive Isotopes and Bioassays.

Radioactive and stable isotopes used in biological investigations. Applications of isotopes in Food and Nutrition research. Animal studies, Human studies and Microbiological assays.
References:


**NUTRITION FOR SPORTS AND FITNESS**

**Course Code:**  HSFN4ET03

**Teaching hours:**  5hrs/week

**Credit:** 4

**Objectives**

- To understand the components of health and fitness and the role of nutrition in these.
- To make nutritional, dietary and physical activity recommendations to achieve fitness and well-being.
- To develop ability to evaluate fitness and well-being
- To understand physiological changes and nutritional requirements during sports events.

**Course Outline**

**Module 1:  Physical fitness and health**

a) Introduction to physical fitness and wellness
b) Contributing factors to health
c) Objectives of physical fitness
d) Motivation for a physically active life, motivational strategies
e) Principles of nutrition for health.
Module 2: Weight management and fitness
   a) Body weight components
   b) Body composition assessment
   c) Regulation of bodyweight (energy)
   d) Weight imbalance - underweight, overweight and obesity (types)
   e) Management of obesity

Module 3: Dietary management for health
   a) Critical review of various dietary regimes for weight and fat reduction
   b) Dietary guidelines appropriate to health and fitness with special reference to obesity, cardiovascular diseases and diabetes.

Module 4: Exercise Performance and Nutrition
   a) Energy expenditure during physical activity
   b) Carbohydrates and performance
   c) Fat metabolism and performance
   d) Effect of exercise on protein requirements
   e) Vitamins and Minerals
   f) Fluid and electrolyte loss and replacement in exercise

Module 5: Sports nutrition
   - Sports physiology
   - Nutritional requirements in sports events - team, power, endurance events
   - pre-game and post-game regime
   - Carbohydrate loading, water and electrolyte balance
   - Role of nutrition, stress, fracture and injury.

Module 6: Nutritional Ergogenics
Ergogenic aids and Supplements - Types, Potential and Concerns
Module 7: Measures of performance and physical fitness

References:

- Modern Nutrition in Health and Disease edited by Maurice B. Shils, Moshe Shike, A., Catherine Ross, Benjamin Cabellero, Robert J. Cousins, Lippincott Williams & Wilkins 2006.

ENTREPRENEURSHIP MANAGEMENT

Course Code: HSFN4ET04
Teaching hours: 4hrs/week
Credit: 4

Objectives

- To gain an understanding of the various aspects and types of business organizations
- To impart information on the various sources of finance and also on the process of setting up small enterprise.
- To enable students to understand the relevance of entrepreneurship and to develop effective entrepreneurship skills among students.
Course Outline

Module 1: Entrepreneurship and its development
Entrepreneurship-Definition, types, characteristics, Entrepreneurship development for employment generation- importance, Factors affecting entrepreneurial growth- economic, social, cultural and personal factors.

Module 2: Women and Employment
Women employment in India - categories of employment, problems related to employment, Unemployment in India- causes & remedies, Importance of self employment.

Module 3: Forms of Entrepreneurial Organizations
Scope and Objectives of modern business, Essentials of successful business, Sole proprietorship, Partnership, Joint Stock company, State enterprises and Co-operative societies ñ meaning, merits and demerits of each, Types of important documents of companies

Module 4: Entrepreneurship and Institutional support
Objectives, functions and assistance given by SIDCO, SIDO, SFCK, IDBI, SIDBI, KSIDC, KSWDC, KITCO, SEWA,SGSY (Swarnjayanti Gram Swarozgar Yojana), JGSY (Jawahar Gram Samridhi Yojana) , Agencies promoting entrepreneurship ñ role of NSIC (National Small Industry Corporation) , Small Industry Extension Training Institute (SIETI), Central Small Industry Organisation (CSIO) DCK, DRDA, KVIC (Khadi and Village Industry Commission) and other voluntary organizations, Small Scale Industries (SSI) - Definition, types, procedure for setting a small scale unit, training facilities for small scale unit, Problems faced by emerging small scale units and remedies

Module 5: Source of Finance
Importance of finance- sources of company finance - long term and short term, Role of banks and other financial institutions, Basics of Costs and Cost Control, Project Appraisal

Module 6: Book keeping & Accounting

Module 7: Marketing & Sales promotion
Marketing- Marketing mix, Functions, types, Advertising & Salesmanship, Public relations, Personal selling, Interpersonal skills, factors affecting the entrepreneurís skill

Related Experience:

1 Visits to agencies involved in development of entrepreneurship
2 Preparation of a project proposal by

- Selection of a trade
- Visits to 1 or 2 units related to trade
- Study the infrastructural requirements
- Records to be maintained
- Procedure for obtaining loan

REFERENCES

- Bhattacharyya, S.K Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi
- Bhushan, Business Organization, Sultan Chand & Sons, New Delhi, (1985)
- Ramesh Babuís Handbook of Entrepreneurs, Business Intelligence Publications
- Shukla M.C., Business Organisation, S. Chand & Co. New Delhi, (1970)
PUBLIC HEALTH NUTRITION PRACTICALS

Course Code:  HSFN4EP05
Teaching hours:  6hrs/week
Credit:  3

Objectives

- To develop skill in field level application of the techniques of assessing nutritional status
- To acquire skill in organising and implementing community nutrition projects
- To give an insight into the various low cost ingredients available in market and prepare low cost nutritious dishes for vulnerable segments in the community

Course Outline

1. Assessment of nutritional status of preschoolers
2. Use and interpretation of Growth Charts
3. Preparation of low cost recipes, Cyclic menu and one dish meal
4. Formulating messages for Nutrition and Health Education
5. Development, Use and Evaluation of methods and aids for NHE
6. Assessing Nutritional concerns among vulnerable groups and Use of anthropometry, biochemical tests, clinical assessment, dietary assessment or Rapid assessment techniques
7. Planning and implementation of a Nutrition and Health Education programme in the community
9. Study of a Community Agency
FOOD PROCESSING AND TECHNOLOGY

Course Code:  HSFN4ET06

Teaching hours:  4hrs/week

Credit:  4

Objectives

- To impart systematic knowledge of basic and applied aspects of food processing and technology.
- To provide the necessary knowledge of basic principles and procedures in the production of important food products.
- To orient the students to potential use of various by-products of food industry, handling storage and processing; Chemical and biochemical reactions affecting food quality and safety.
- To processing technology of foods and nutritional implications for the following:

Module 1:  Cereals and Pulses

Wheat grain characteristics and products; wheat milling process; milling of durum or semolina; macaroni or pasta products, noodles, wheat starch and gluten fractionation, baking technology, production of bread, biscuits and cakes; Corn wet milling; zein separation; corn starch products; Barley malting; dry milling and air classification; wet fractionation of barley pearling; Storage and quality of cereal grains; Rice processing, fractionation, quick-cooking rice, parboiled rice, rice based instant foods; Pulses ñ processing, elimination of toxic factors, quick-cooking dals, fermentation and germination; Oilseed pressing, solvent extraction, purification (degumming, refining, bleaching, deodorization), hydrogenation, plasticizing and tempering, products ñ butter, margarine, shortening, mayonnaise and salad dressing, inter-esterification and production of MCT.

Module 2:  Fruits and Vegetables

Structure, composition, physiological and biochemical changes during ripening, handling and storage; Varietal, harvesting and pre-processing considerations for vegetables; post harvest processing practices. Processing of vegetables, canning, freezing, dehydration, pickles and chutneys; Potato processing ñ Raw material handling and storage, raw material quality and suitability for chips, French fries, dehydrated granules and boiled/canned potatoes; processing for chips, French fries and dehydrated granules; Fruit processing ñ Citrus juices, apple juices, slices and dehydrated products, grape juice and raisins. Canning, fruit-based beverages and concentrates, squashes, jams, jellies, ketchups, sauces, high sugar, high acid products.

Module 3:  Milk and Milk Products-

Milk processing ñ Classification, separation and standardization, pasteurization, of-flavour removal, homogenization, packaging; UHT sterile milk. Milk products ñ fortified milk,

**Module 4: Meat, Fish and Eggs**

Chemistry of processed meats, ageing and tenderizing, curing, smoking and freezing of meat, fresh storage of meat. Fish preservation and processing. Meat and fish products: preservation by curing, smoking, salting and pickling and dehydration.

**Module 5: Additives and Preservatives**

Definition of food additives; acids, bases, buffer systems and salts, chelating agents, antimicrobial agents, sweeteners, stabilizers and thickeners, fat replacers, firming texturizers, appearance control and clarifying agents.

Flavour enhancers, aroma substances, sugar substitutes, sweeteners, antioxidants, Anticaking agents, bleaching agents, protective gases. Spices - Processing and extraction of essential oils and colours, stability, storage and preservation.

**References**


### FOOD PRODUCT DEVELOPMENT AND MARKETING

**Course Code:** HSFN4ET07  
**Teaching hours:** 4hrs/week  
**Credit:** 4

**Objectives**

- To understand and know various aspects of food product development including Food Science and Technology, Marketing and Consumer research, finance and communication.

- To develop products which meet consumer needs and nutritionally and commercially viable.

- To recognize the potential for entrepreneurship through marketing.

**Course Outline**

**Module 1: New Food Products**

Definition, Classification, Characterization Factors shaping new product development- Social concerns, health concerns impact of technology and market place influence. Reasons for new food product development (corporate, market place, technological and governmental influences) Assessing needs from various perspectives.
Module 2: Brief introduction to Phases in Food Product Development.


Module 3: Generation of New Product Ideas

Internal sources of ideas; External sources of ideas; Market place analysis

Module 4: Screening

Team Approach and involvement of various departments; Objectives of screening; Criterion of screening

Module 5: Development Process

Market Sector perspective and Market research. Technical development ñ Recipe development and scale up, food safety and food spoilage. Newer food stabilising systems: Thermal processing, ohmic heating, stabilizing with high pressure, other non-thermal stabilizing systems, control of water, controlled/modified atmosphere packaging, irradiation, hurdle technology, low temperature stabilization. Use of various new ingredients to suit product functions. Packaging, Design Graphics and Labeling.

Module 6: Refining the Screening Procedure for the product

Sensory Evaluation, Shelf life Testing, Product Integrity and conformance to standards

Module 7: Test Marketing; Evaluating results and analyzing

Module 8: Entrepreneurship: Plant location, investment, Financing the project

Module 9: New products in Food Service Industry and Food Ingredient industry.

PRACTICALS

1) Market Survey, Consumer survey to identify new products in terms of
   - Line Extension
   - Repositioning Existing Products
   - New form/Reformulation
   - New packaging of existing products
   - Innovative products
   - Creative Products

2) Tapping traditional foods and unconventional sources of foods.
   Minimizing post harvest losses.
3) Identification of product for development
   - Concept
   - Market research the concept and concerned product
4) Development and Screening the products, developing criteria for screening scaling up
5) Test Marketing
6) Project Report

References

FOOD SAFETY AND QUALITY CONTROL

Course Code: HSFN4ET08
Teaching hours: 4hrs/week
Credit:4

Objectives
- To know the importance of quality assurance in food industry.
- To know the various tests and standards for quality assessment and food safety.
- To know the various tests used to detect food adulterants.
- To be familiar with the fundamentals that should be considered for successful quality control programme.

Course Outline

Module 1: Introduction to quality assurance and food safety assurance.
Current concepts of quality control.
Module 2: Quality assurance programme:

Quality plan, documentation of records, products standards products and purchase specifications, process control and HACCP, hygiene and housekeeping corrective action, quality and programme and total quality process.

Module 3: Quality Costs:

Measurement and analysis.

Module 4: Product Evaluation:

- Sampling for product evaluation and line control.
- Statistical quality and process control
- Sample preparation
- Reporting results and reliability of analysis.

Tests for specific raw food ingredients and processed. Foods including additives:

a) Proximate principles
b) Nutrient analysis
c) Quality parameters and tests of adulterants.

Module 5: Consumer protection

Food safety, Food standards, International and National Food laws.(Recent)

Module 6: Food Adulteration

Definition, types, commonly used adulterants, steps to detect common adulterants.

References

- Proc. Food Processors Institute: A key to Sharpening your Competitive Edge. Food Processors Institute, Washington, DC.

**Journals**

- Critical Reviews is Food Science and Nutrition.
- Food Technology
- International Journal of Food Science and Technology.
- Journal of Food Technology
- Trends in Food Science and Technology

**PRACTICALS**

**Objectives**

1. To test different foods for their quality
2. To detect adulteration in different foods
3. To be familiar with tests used for quality control.

**Course Outline**

1. Assessment of purity and quality using appropriate standard tests for the following:
   - Water including mineral water.
   - Milk and milk products
   - Fats and oils including butter ghee and hydrogenated fat.
   - Ice creams and sherbets
   - Cereals and cereal products
   - Pulses and legumes
   - Spices and condiments and salt, pickles, sauces and chutneys.
   - Tea and coffee
   - Canned, dehydrated, frozen and bottled fruit/vegetable products
   - Confectionery
• Flesh foods
• Specific food ingredients such as glycerine, vinegar
• Fruit juices, concentrates and beverages

2. Detection/Estimation of Food Additives and Contaminants

References


• Bureau of Indian Standards: Specifications and Standard Methods.


M.Sc. Programme in Home Science Mahatma Gandhi University
NUTRITIONAL EPIDEMIOLOGY

Course Code: HSFN4ET06

Teaching hours: 4hrs/week

Credit: 4

Objectives

- To understand the principles of Epidemiology nutritional epidemiology and its importance in Community and Public Health.
- To be able to design and evaluate studies/nutritional programmes.
- To be aware of characteristics and use of biological markers in understanding mechanistic basis for association revealed from epidemiological studies.

Course Outline

1) Introduction to Epidemiology and Branches of Epidemiology  
   Types of Epidemiology

2) Epidemiological Information: Collecting epidemiological data, secondary routine data.

3) Patterns of Disease:
   Descriptive Epidemiology, Cross sectional Analysis, Prevalence and Incidence, Risk, factors, Risks and Odds.
   Relative and Attributable risks.

4) Principles of Nutritional Epidemiology.


6) Assessment of Food Consumption, Intake and validation of Assessment.

7) Biochemical Markers of nutrient intake and nutritional status.

8) Socio demographic and psycho social variables.

9) Anthropometric measurements.

10) Design and planning of Nutritional Epidemiological studies.

Related References

Discussion of selected case studies.

References


• Ohlin, A; Ahlander, E,M. Ekberg, A and Bruce,(A) (1994): Bibliography on Validations of Dietary Assessment Methods, National Food Administration, Uppsala, Sweden.


MODEL QUESTIONS

HSFN1CT01

HUMAN PHYSIOLOGY

Time: 3hrs

Maximum: 30 Weightage

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What do you mean by cardiac cycle?

2. Define Mean Corpuscular Haemoglobin Concentration (MCHC).

3. What are the functions of plasma proteins?

4. Discuss adaptation of biliary response to diet.

5. What is enterohepatic circulation?

6. Write a note on lifestyle factors and bone health.

7. What do you mean by nutritional rickets?

8. List the functions of spleen.

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Bring out the relationship between diet and blood pressure.

10. Discuss the pathogenesis of cardiovascular disease.

11. Elucidate the digestion of proteins.

12. Write a note on thyroid gland.

13. Discuss the structure of a neuron.

14. Write a note on cell mediated immunity

15. Explain the structure and function of liver.

16. Bring out the relation between micronutrient status and immunity.

(5x2=10 weightage)
PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the anatomy and physiology of the respiratory system and regulation of respiration.

18. Discuss the role of the pituitary gland as the master gland of the endocrine system.

19. Explain the process of urine formation and renal function tests.

20. Explain in detail the structure of the central nervous system.

21. Discuss dietary components and their effect on plasma lipids.

22. Write an essay on the immune system.  

(3x5=15 weightage)

HSFN1CT02

ADVANCED NUTRITION 1

Time: 3hrs  Maximum: 30 Weightage

PART ñ A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Write a note on significance of Body Composition.

2. Write on Bioavailability of Nutrients.


4. Write a note on Sterols.

5. Discuss Resistant Starch.

6. Write a note on WHO classification of BMI.

7. Discuss phosphate toxicity.

8. What is Basal Metabolic Rate?  

(5x1=5 weightage)
PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. How are lipids absorbed and transported in the human body?
10. Discuss the factorial computation of energy expenditure.
11. Discuss properties of fiber with reference to nutrition and health benefits.
12. List out the functions of magnesium with important dietary sources.
13. List out the functional properties of proteins.
14. Discuss the factors affecting bioavailability of calcium.
15. How is carbohydrate digested?
16. Bring out the relation between dietary mineral intake and blood pressure.

(5x2=10 weightage)

PART भC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss the different methods of assessing body composition.
18. Bring out the role of essential fatty acids in human diet. Discuss the disorders due to faulty consumption of fats.
19. Discuss the hormonal control of carbohydrate homeostasis.
20. Discuss the causes, signs, consequences and dietary modification of overweight.
21. Explain the different methods for evaluating quality of proteins.
22. Explain the interrelationship of calcium, phosphorous and Vitamin D.

(3x5=15 weightage)
HSFN1CT03

NUTRITIONAL BIOCHEMISTRY

Time: 3 hrs  Max: 30 Weightage

Part A

1. Answer any 5 questions not exceeding one page. Each question carries a weightage of 1.
   1. Anomerism
   2. ATP as energy currency
   3. Saponification number of oils
   4. Ketone bodies
   5. Beta Oxidation of Fatty acids
   6. Structure of starch and glycogen
   7. Glycogenolysis
   8. Tertiary structure of proteins  (5x1=5 weightage)

Part B

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.
   9. Classify carbohydrates giving suitable examples
   10. Explain gluconeogenesis
   11. Describe beta oxidation of Fatty acids
   12. Explain DNA replication mechanism
   13. Explain energetics of TCA cycle
   14. Disorders of protein metabolism
   15. Transdeamination of Amino acids
   16. Explain any 3 micromineral interactions  (5x2=10 weightage)

Part C

III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5
   17. Give an account of the biosynthesis of cholesterol
   18. Explain glycolysis. Add a note on energetics also
19. Explain urea cycle and its role in protein metabolism

20. Explain de novo synthesis of fatty acids

21. What is electron transport chain? Add a note on oxidative phosphorylation also.

22. Explain DNA recombinant technology. \( (3 \times 5 = 15 \text{ weightage}) \)

**HSFN1CT04**

**NUTRITION THROUGH LIFE CYCLE**

**Time:** 3 hrs **Max:** 30 weightage

**Part A**

I. **Answer any 5 questions not exceeding one page. Each question carries a weightage of 1.**

1. Growth monitoring

2. Eating disorders of adolescents

3. Baby friendly hospital initiative

4. Protein energy malnutrition

5. Let down reflex

6. Ideal weight gain in pregnancy

7. Nutrition in Cold/Polar environments

8. Malnutrition and mental development \( (5 \times 1 = 5 \text{ weightage}) \)

**Part B**

II. **Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.**

9. Elaborate on human milk composition and its benefits

10. Justify the increased nutritional requirements in pregnancy.

11. Elaborate effects of ageing on Food and Nutrient intake.

12. Elaborate methods of studying human nutritional requirements.

13. Outline the principles of computation of RDA for Energy requirements of Indians.
14. Bring out the importance of good weaning. Add a note on ARF.
15. How is RDA for Iron arrived for various age groups?
16. Elaborate on nutritional requirements and dietary modifications during lactation.

\[(5\times2=10\text{ weightage})\]

**Part C**

**III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5.**

17. Discuss the physiology and endocrinology of lactation.
18. Explain the nutritional care of pre term infants.
20. Explain foetal and maternal consequences of undernutrition.
21. Give an account of nutrition during space travel and type of foods used.
22. Explain physiological changes at high altitudes and principles of high altitude nutrition.

\[(3\times5=15\text{ weightage})\]

**HSFN2CT06**

**CLINICAL NUTRITION AND DIETETICS**

**Time: 3hrs**

**Maximum: 30 Weightage**

**Part ñ A**

1. **Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1**

1. What is a diet prescription?
2. Write a note on Full Fluid Diet.
3. Write a note on glycosylated haemoglobin.
4. Discuss types of obesity.
5. What is Glycaemic Load (GL)?
6. Discuss etiology of nephrolithiasis.
7. What is Percutaneous Endoscopic Gastrostomy (PEG)?
8. List the causes of renal failure.  

\[ (5 \times 1 = 5 \text{ weightage}) \]

Part - B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Write a note on dietary management in peptic ulcer.
10. Discuss dietary risk factors for atherosclerosis.
11. Elucidate the role of diet in the prevention and occurrence of cancers.
12. Write a note on dietary management in pancreatitis.
13. Discuss the role of a dietitian in the hospital.
14. Bring out the reasons for the increasing prevalence of obesity.
15. Discuss aetiology and management of hepatitis.
16. Write a note on the dietary management in burns.

\[ (5 \times 2 = 10 \text{ weightage}) \]

Part ñ C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss enteral and parenteral nutrition in detail.
18. Discuss the role of diet in the development and management of cardiovascular disease.
19. Explain dietary management in Diabetes mellitus with specific emphasis on Glycemic Index and Glycemic load.
20. Bring out the role of diet in the development of chronic degenerative diseases.
21. Discuss renal failure and dietary management.
22. Write an essay on Interactions between drugs, food and nutrients.

\[ (3 \times 5 = 15 \text{ weightage}) \]
ADVANCED NUTRITION -II

Time: 3hrs
PART-ñA

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Haemochromatosis
2. Flavonoids
3. Niacin deficiency disorders
4. Goitrogens
5. Pernicious Anaemia
6. Functions of Vitamin D
7. Physiological functions of Zinc
8. Ceruloplasmin

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Write the role of Vitamin E in human body.
10. Discuss the regulation of water balance.
11. Differentiate absorption of heam and non heam iron
12. Discuss the spectrum of IDD.
13. Write a note on functions and sources of folic acid.
14. Explain the effects of riboflavin deficiency.
15. Discuss the role of fluorine as a micronutrient in the body.
16. What are the effects of Vitamin K deficiency?

PART-ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the physiological and biochemical functions of Vitamin C. Discuss deficiency disorders.
18. Discuss the factors affecting bioavailability of Iron. Write on the methods for assessing iron nutritional status.
19. Explain the role of phytochemicals in health and nutrition.
20. Explain the absorption, biochemical functions and deficiency of Vitamin A.

21. Discuss water under the following heads -
   Functions, distribution and problems related to imbalance.

22. Write an essay on the role of anti oxidant nutrients in the human body.

   *(3x5=15 weightage)*

**HSFN2CT08**

FOOD SERVICE ORGANISATION AND MANAGEMENT

Time: 3 Hours  
Max: 30 Weightage

**Part A**

I. Answer any five questions, not exceeding one page. Each question carries a weightage of 1

1. Commissary food service system

2. Work Simplification

3. Portion Control

4. Bid Buying

5. Balance Sheet

6. Standardisation

7. Induction

8. FPO

   *(5 x 1 = 5 weightage)*

**Part B**

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.

9. What are the organisational tools used in management?

10. Explain employee performance evaluation techniques.

11. Explain the principles involved in menu planning.

12. Write on the informal system of purchasing.
13. Give an account of the double entry system of book-keeping and its advantages

14. How can food cost be controlled?

15. Discuss the factors to be considered while planning work centres in the kitchen.

16. Explain the different types of formal food service.

(5 x 2 = 10 weightage)

Part C

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. Write an essay on the types of commercial food service establishments in India.

18. What are the principles of management?

19. Discuss guidelines for work simplification in a food service industry.

20. Plan the layout for a hospital dietary department catering to 100 beds indicating the different areas, work centres, equipment and indicating the flow of traffic.

21. What are the labour laws related to commercial food service institutions?

(3 x 5 = 15 weightage)

HSFN2CT09

RESEARCH METHODS AND STATISTICS

Maximum : 30 Weightage Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define intervening variables

2. What are partition values? Give the different partition values

3. Define a standard normal distribution

4. What is standard error?

5. What is a scatter diagram?

6. Write on the types of questionnaires?

7. What is sampling error?

8. Pictograph

(5 x 1 = 5 weightage)
PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between absolute and relative measures of dispersion

10 Briefly explain the types of research

11. Differentiate between interview and observation

12. Explain the advantages and limitations of questionnaires as a research tool.

13. Calculate the correlation coefficient from the following data sheet:

\[
\begin{align*}
N_x &= 444 & N_y &= 443 & N_x^2 &= 19806 & N_y^2 &= 20065 & N_{xy} &= 19711 & n &= 10
\end{align*}
\]

14. Define variable and discuss the types of variables

15. What are the properties of normal distribution?

16. The following data was obtained in an investigation about the effect of vaccination for hepatitis. Examine whether vaccination is effective in preventing hepatitis.

<table>
<thead>
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<th>Vaccinated</th>
<th>Not Vaccinated</th>
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</thead>
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<tr>
<td></td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Not attacked by hepatitis</td>
<td>8</td>
<td>5</td>
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</table>

(5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Interview. Construct an interview schedule on any relevant topic based on your interest.

18. The BMI of people follows a normal distribution with mean 20 and standard deviation 3. Find probability that a person selected at random is having BMI

\[
c) \text{ Between 16 and 23} \quad b) \text{ Above 25} \quad c) \text{ Below 20}
\]

19. Define sample. Briefly explain different types of sampling.

20. Discuss briefly on any two tools used in research

21. Compare the merits and demerits of mean, median and mode.

22. The following are the marks of 10 students before and after training. Test whether the training is effective.
Mark before training:  91  95  81  83  76  88  89  97  88  92
Mark after training:  89  101  85  88  81  92  92  99  97  87

(3x5=15 weightage)

HSFN3CT11

FOOD SCIENCE AND TECHNOLOGY

Time: 3hrs                          Maximum: 30 Weightage

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Food hydrocolloids
2. Denaturation
3. Protein hydrosylates
4. Rancidity
5. Emulsions
6. Non-nutritive sweeteners
7. Pasteurisation.
8. Functional foods

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Give an account of microbial polysaccharides citing examples.
10. Discuss the functional properties of food lipids.
11. Write on the applications of enzymes in the food industry.
12. Bring out the role of probiotics in health.
13. What are the properties of sols?
14. Write on protein concentrates.
15. Explain flavour reversion in oils
16. What are the steps involved in the development of a new product? (5x2=10 weightage)

**PART  III.

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Bring out the importance of sensory evaluation in the food industry and discuss the different tests

18. Write a note on food polysaccharides and their applications.

19. What are the sources of natural colourants used in the food industry?

20. Write a note on functional foods, sources and their health benefits.

21. What are the changes that occur in fat during storage and heating?

22. Give the structure and functional properties of lipids. (3x5=15 weightage)

**HSFN3CT12**

**FOOD BIOTECHNOLOGY**

**Time: 3 hrs**

Max: 30 Weightage

**Part A**

1. Answer any 5 questions not exceeding one page. Each question carries a weightage of 1.

1. Molecular cloning

2. PCR

3. Intellectual Property Rights

4. Human Genome Project

5. Immobilised enzymes

6. Down stream processing

7. Single Cell Protein

8. Biosensors (5x1=5 weightage)
Part B

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.

9. Give an account of techniques and applications of plant tissue culture

10. Explain the terms: a) Genome b) Genetic Code c) Gene expression

11. Give an account of methods of enzyme immobilization

12. Explain types of fermented Soy based products.

13. Give an account of media used in animal cultures

14. Explain the technique of animal cloning

15. Explain limiting factors on the use of biotechnology on food production

16. Explain microbial lipid production

(5x2=10 weight age)

Part C

III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5.

17. Bring out the application of genetics in food production

18. Explain structure and working of a bioreactor. Explain the stage course of fermentation

19. Give an account of microbial production of Vitamins.

20. Elaborate on overall metabolic fate of Xenobiotics

21. Give an account of a) Mushroom culture and b) Alcoholic beverage production

22. Explain application of enzymes in Food industries.

(3x5=15 weightage)

HSFN3CT13

FOOD MICROBIOLOGY AND QUALITY CONTROL

Time: 3hrs Maximum: 30 Weightage

PART ñ A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1.

1. Coliform bacteria
2. Effect of pH of microbial growth
3. Phosphatase test
4. Canning
5. Ropy bread
6. Botulism
7. Microbiological standard
8. HACCP

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Bring out the economic importance of molds.
10. What are the sources and micro-organisms that contaminate water?
11. Write on any two intrinsic parameters that affect microbial growth.

12. What are the causes of spoilage and types of contamination in fish?
13. What are the principles and methods of preservation of fruits and vegetables?
14. Explain Salmonellosis in terms of causes, foods involved, symptoms and prevention.
15. What are the microbiological criteria of foods?
16. Explain how food can be examined for the presence of viable micro-organisms.

(5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Write a note on the physical agents used in food preservation.

18. What are the procedures involved in the reporting and investigation of a food borne outbreak?

19. Explain HACCP in maintaining quality in a food processing industry.

20. What is food borne intoxication? Elaborate on any two.

21. Give an account of the international and national organizations involved in ensuring food standards.

22. Write an essay on the natural toxicants present in foods.
HSFN3CT14

SCIENTIFIC WRITING AND PROJECT MANAGEMENT

Maximum: 30 Weightage Time: 3 hrs

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

45. Objectivity in research.
46. Budgeting a project.
47. Executive summary.
48. Importance of bibliography.
49. Pilot study.
50. Importance of setting a time frame.
51. Presentation of a project proposal.
52. Foot notes. (5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

53. Explain the parts of a table.
54. What are the objectives of classification of data.
55. What are the important points to be mentioned while writing the introduction of a dissertation?
56. Explain the importance of the graphical presentation of data. Briefly mention its limitations.
57. How do you write a review article?
58. What is the significance of reviewing the literature?
59. Briefly explain the principles of report writing.
60. What are the general rules of tabulation? (5x2=10 weightage)

PART C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

61. Explain the following, citing their advantages, limitations and areas of application
   (c) Bar diagram (b) Pie graph
62. Choose a research topic related to your field of study and write a research proposal for securing a university grant.
63. Briefly explain the parts of a dissertation.
64. What are the salient points to be borne in mind while writing research articles for journals.
65. What are the points to be borne in mind while explaining the results of a study and discussing it.
66. Briefly explain how to formulate outlines. Add a note on the kinds of outlines while reporting a research finding.

(3x5=15 weightage)

HSFN4ET01

PUBLIC HEALTH NUTRITION

Time: 3hrs
Maximum: 30 Weightage

PART ñ A

II. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Write a note on nutrition security.
2. Discuss aetiology of fluorosis.
3. Write a note on Iodine Deficiency disorders.
4. Discuss consequences of Iron Deficiency anaemia.
5. What is food fortification?
6. Write a note on zinc deficiency.
7. Discuss relation between infection and immunity.
8. What are vital health statistics? (5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss in detail 24 hr dietary recall method.
10. Elucidate the principles of effective nutrition education.
11. List functions of the NFHS.
12. Discuss treatment of Protein Energy Malnutrition.
13. Discuss the National Nutrition Anemia Control Programme.
14. What are the indirect methods of assessment of nutritional status?
15. What is nutrition epidemiology?

16. Discuss the nutrition transition in India.  

\[5 \times 2 = 10 \text{ weightage}\]

\[\text{PART } \text{III}\]

\[\text{III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.}\]

17. Explain in detail the National Nutrition Policy.

18. Write an essay on prevalence, aetiology, consequences and treatment of Iron Deficiency anaemia in India.


20. Discuss in detail technical considerations and impact of food fortification.

21. Write an essay on the dual burden of malnutrition in India.

22. Write an essay on research methods in Public Health Nutrition.  

\[3 \times 5 = 15 \text{ weightage}\]

\[\text{HSFN4ET02} \]

\[\text{BIOPHYSICAL TECHNIQUES}\]

\[\text{Time: 3hrs} \quad \text{Maximum: 30 Weightage}\]

\[\text{PART } \text{I A}\]

\[\text{I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1}\]

1. Define the terms electrophoresis and chromatography.

2. What is ELISA? Give two applications.

3. Write a note on isoenzymes.

4. Discuss enzyme inhibition.

5. What are the applications of colorimetry?

6. Discuss biochemical applications of isotopes.

7. What are the applications of a spectrophotometer?

8. List the classes of enzymes.

\[5 \times 1 = 5 \text{ weightage}\]
PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Write a note on factors affecting enzyme quality.
10. Discuss High Performance Liquid Chromatography.
11. Enumerate the factors affecting the rate of migration of ions in electrophoresis.
12. Discuss microbiological assay of amino acids.
13. Describe the procedure of Polyacrylamide Gel Electrophoresis.
14. Explain isoelectric focusing of proteins.
15. Differentiate optical and electron microscope.
16. Give an account of the principles and applications of colorimetry and fluorimetry.

(5x2=10 weightage )

PART III

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Discuss the biochemical applications of radioisotopes.
18. Discuss Michaelis Menten equation and its derivatives.
19. Elaborate on various theories related to enzyme substrate complex formation.
20. Write an essay on the use of isotopes in food and nutrition research.
21. Write an essay on different types of chromatography.
22. Write an essay on the various instruments used for food science applications.

(3x5=15 weightage)
2. Motivational strategies for fitness.
3. Body Mass Index classification
4. Nutritional ergogenics
5. Carbohydrate loading
6. Sports anemia
7. Fluid requirements of athletes.
8. Lifestyle modification strategies \( (5 \times 1 = 5 \text{ weightage}) \)

**Part B**

**II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.**

9. Outline the measures to assess performance and physical fitness
10. Discuss carbohydrates with special reference to sports performance.
12. Discuss weight imbalance with regard to overweight and leanness.
13. Explain fluid and electrolyte loss and replacement in exercise.
14. Elaborate on physiology of weight loss
15. What are the methods to assess body composition?
16. Bring out role of vitamins and minerals on exercise performance. \( (5 \times 2 = 10 \text{ weightage}) \)

**Part C**

**III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5.**

17. Elaborate on nutritional requirements during sports events. Add a note on pre game and post game regime.
18. Critically compare various dietary regimes for weight reduction
19. Discuss dietary guidelines appropriate to health and fitness with special reference to obesity and cardiovascular health.
20. Elaborate on measures of performance and physical fitness.
21. Discuss physiological aspects of sports nutrition.
22. Explain effect of exercise on body composition. \( (3 \times 5 = 15 \text{ weightage}) \)
ENTREPRENEURSHIP MANAGEMENT

Maximum: 30 Weightage

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
   1. Define entrepreneurship and its importance.
   2. What is Joint Stock Company?
   3. Explain balance sheet.
   4. What is auditing?
   5. What is salesmanship?
   6. What are the benefits of self employment ?
   7. Explain the importance of advertising.
   8. What are the objectives of KITCO?

   (5x1 = 5 weightage)

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
   9. What are the problems faced by small scale industries ? Write a note on its remedies.
   10. What are the accounting methods?
   11. Explain the procedure for registration of a business.
   12. Explain any 5 types of enterprises.
   13. Explain the contents of a project proposal.
   14. What are the important documents of companies ?
   15. What are the factors affecting the entrepreneurís skill ?
   16. What are the objectives of modern business?

   (5x2 = 10 weightage)

III. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.
   17. What is marketing? What are the different types of marketing techniques? Explain its merits and demerits.
   18. Explain the concept of small scale industries. What are the steps in setting up a small scale industry?
   19. Prepare a project proposal for starting a handicrafts unit in your locality.
   20. Explain the objectives, functions, merits and demerits of any two agencies supporting entrepreneurship.
21. What are the factors affecting entrepreneurial growth?
22. What are the causes and remedies of unemployment in India?

(3x5 = 15 weightage)
Introduction

The Master’s programme in Community and Family Science is built upon knowledge and competencies developed during the undergraduate programme. The focus of the postgraduate programme would be to develop professional and entrepreneurial skills in the domains of Interior designing, Resource management, interior space designing for commercial and houses, Nutrition, Dietetics, food technology, Fashion Technology, Apparel manufacturing, Early Childhood Care and Education, gerontology, working for Persons with Special Needs, Empowerment of Families and Communities and Development Programming and dealing with behavioural and mental health issues.

The curriculum focus at post-graduate level is to foster a firm theoretical background with amalgamation of practical skills and development of research related abilities, so that the graduates are capable of critical and analytical thinking, sensitive to societal issues and concerns, and able to communicate skillfully.

The programme aims at creating professionals who will utilize the substantive knowledge in the realm of, interior designing, dietetics, food technology, Fashion technology, apparel manufacturing, child development to respond to the challenges of a dynamic socio-economic-political situations and system. The students would be competent to address emergent issues and concerns of society with sensitivity to understand cultural, economic, entrepreneurial, psychological and life-span developmental perspectives.

The programme would enable graduates to work as: teachers at university level, researchers, co-ordinators/supervisors/programme planners, quality supervisors, food industries, shopping malls, apparel industries, in government and non-governmental organizations/agencies at national and international level. The students having adequate background in planning, evaluating, monitoring and organizing skills would be able to work as entrepreneurs and also play advocacy related roles.

Objectives

The Post-Graduate programme in Community and Family Science will focus on developing knowledge and competence for:

(i) Teaching and research in academic and other institutions.

(ii) Planning and conducting intervention, guidance and advocacy for empowerment of families and communities.
(iii) Supervisory, training and consultancy roles and responsibilities in Government and non-government agencies/institutions.

(iv) Entrepreneurship in specific areas of interior space designing, food Technology, food industries/hotels/restaurants/apparel industries, fashion technology, human development and family studies.

(v) Planning, monitoring and evaluation of various programmes for children, women and families in general.

(vi) Advocacy and policy related roles

Eligibility

For admission to the post graduate programme in Community and Family Science (Branch X A) the applicant must have passed B.Sc. Family & Community Science / Home Science Model I & II of the Mahatma Gandhi University or any statutory university recognized by the Mahatma Gandhi University with not less than 55% in Part III.

Graduates in Food Science and Quality control with not less than 55% in Part III are also eligible. In addition to the existing criteria, candidates with B.Sc. Degree in Food Service Management & Dietetics, Clinical Nutrition and Dietetics are also eligible. Weightage will be given to the above mentioned degrees. Graduates in Psychology, Zoology, chemistry, Human Development, Nursing or any Science graduate with PG Diploma in Pre-School Education/Counselling Psychology or Science Graduates with Open Course namely Life Skills Strategies and Techniques, interior designing, nutrition for wellness are also eligible.
## BRANCH X D

### COMMUNITY AND FAMILY SCIENCE

#### COURSE OUTLINE

**TOTAL CREDITS-80**

Family and Community Science, Community and Family Science and Home science are the same course. Only difference in nomenclature.

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSE</th>
<th>TITLE OF COURSE</th>
<th>TEACHING HOURS/WEEK</th>
<th>CREDIT</th>
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SEMESTER 1
ENVIRONMENT AND HUMAN RESOURCE MANAGEMENT

Course Code: HSCF1CT01

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To understand the significance of resource management
• To become aware of socio-economic environment of the families
• To become aware of the techniques of financial management
• To be aware of the environmental resources and its utilization

Course Outline

Module 1: Human resource management

Management as a system, abilities, functions and processes; Definition, elements, types, abilities like conceptual, human, technical; Advantages and limitations of systems approach, application in resource management.

Module 2: Management functions and processes

Organizing - purpose, principles, process, responsibility and accountability-Staffing, purpose, principle, recruitment, appraisal-guiding, directing, leadership, motivation-Controlling, tools for management control, feedback Appraisal/evaluation: tools and techniques

Module 3: Decision making and implementation

Meaning-types-modes, techniques and tools for decision making-Cost benefit analysis

Module 4: Financial planning

Financial planning and implementation-budgeting-allocation of resources, purchase, storage and cost reduction. Planning budget for a-family of fixed income-restaurant/hostel/any selected organization. Small scale industry-Saving and investment-importance, role of credit in finance

Module 5: Community resource management

Land and water Resources - Energy from biomass- Meaning , classification , uses and products Environmental impact of non renewable energy source, conservation techniques; Solar energy-Importance, advantages and disadvantages, Solar devices - Solar water heaters, solar cooker, and solar drier, solar voltaic cell[wind energy, induction cooking and principles].
Module 6: Waste management
Types of waste, segregation and methods of proper waste management. Treatment of waste-solid waste management-fluid waste

Module 7: Environments and public health
Factors affecting changes in ecosystem and Environment (Socio, economic, cultural and geographic)

Module 8: Environment pollution and Community health
Controlling agencies-Land pollution, and Water pollution- air pollution, (Emphasis on climatic changes and impact on food and environment) technology

Related experience
- Make a budget for low/middle/high income group family of fixed income-restaurant/hostel/any selected organization-Boutique/Small scale industry
- Time schedule for non working and working women
- Visit to a rain water harvesting Module/vermi composting centres
- Prepare poster for educating public on management of solid waste/electronic waste at home and Community
- Visit to the solar energy centre/ looking at different types gas stoves that works on different fuels and comparing some energy expenditure and conservation parts.

References
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- Water treatment and sanitation M.T.Mann2006
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- Energy resources in Science Education Kirwan D.F.2007
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- Bhatia HS,(2008): A Text book of Environmental Pollution and control,Newdelhi
Journals

- The International Journal of Human Resource Management, Published By: Routledge, Print ISSN: 0958-5192, Online ISSN: 1466-4399
- Human Resource Management International Digest; ISSN: 0967-0734
- African Journal of Economic and Management Studies; ISSN 2040-0705
- Agricultural Finance Review; ISSN 0002-1466
- American Journal of Business; ISSN 1935-5181
- American Journal of Police; ISSN 0735-8547
- Anti-Corrosion Methods and Materials ISSN 0003-5599

THERAPEUTIC DIET MANAGEMENT

Course Code: HSCF1CT02
Teaching hours: 5hrs/week
Credit: 4

Objectives:

- To understand the competency and the role of nutrition in different conditions
- To develop competency in planning diets to meet the nutritional requirement of different socio-economic levels
- To gain knowledge about the methods of assessment of nutritional problem and their implications.
- To understand the role of dietician.
- To gain knowledge about the principles of diet therapy and planning therapeutic diets.
- To develop aptitude for taking up dietetics as a profession.

Course Outline

Module 1: Basic concepts of diet therapy
Principles and classification of the therapeutic diets- Team approach to health care.

Module 2: Diets for critical care
Surgical conditions Energy modifications and nutritional care for weight management Identifying the overweight and obese, etiological factors contributing obesity, prevention
and treatment. Low energy diets, balanced energy reduction and behavioural modifications, Underweight - etiology assessment, high energy diets for weight gain, anorexia nervosa and bulimia.

**Module 3: Diets for Febrile Conditions, Infections**


**Module 4: Diet Therapy Gastro Intestinal disorders**

Etiological factors, symptoms, diagnostic tests and management of upper GI tract disease - disease of oesophagus and dietary management, diseases of stomach and dietary management. Gastric and" duodenal .ulcers and dietary management. Etiology, symptoms, diagnostic tests and management of intestinal diseases: Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative Colitis,Flatulence, Constipation, Irritable Bowel Syndrome, Haemorrhoids.

**Module 5: Diet Therapy - Disease of the Endocrine Pancreas**

Diabetes Mellitus: Classification, symptoms, diagnosis, management -insulin therapy, oral hypoglycemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods, sweetness and sugar substitute. Diseases of the liver, Exocrine Pancreas and Billiary System. Liver function tests and nutritional care in liver disease in the context of results. Dietary care and management

**Module 6: Diet Therapy - Diseases of the Cardiovascular System**


**Module-7: Diet Therapy -Renal Diseases**


**Module 8: Diet Therapy Hiv/Aids, Cancer And Nutrigenomics**

HIV/AIDS, management, and control; Cancer types- dietary management; Personalized nutrition therapy, nutrigenomics and personalized wellness

**Related Experience**

- Plan programs for diet counseling
- Planning and preparing diets for different disease conditions
  1. Preparation of clear and full liquid diets and soft diet.
  2. Planning and preparing diets for:
a) Febrile conditions - typhoid, tuberculosis
b) Surgical conditions and burns
c) Gastrointestinal disorders - constipation, diarrhea, ulcerative colitis, peptic ulcer.
d) Live and gall bladder disorders ñ Hepatitis, cirhsis, Cholelithiasis.
e) Metabolic disorders - diabetes, hypo and hyperthyroidism, gout
f) Cardio vascular disorders - hyperipoproteinemia, arteriosclerosis, hypertension.
g) Renal disorders - nephritis, renal failure, nephrolithiasis, dialysis.
h) Obesity and underweight
i) Nutritional deficiency - Vitamin A and iron deficiencies

3. Planning and preparing pediatric diets
a) Lactose intolerance
b) Juvenile diabetes
c) Diets for inborn errors of metabolism.

4. Visit to hospital dietaries

Reference:


- Gopalan, C., Rama Sastri, B.V., and Balasubramanian S.C Nutritive Value of Indian Foods, National Institute of Nutrition, ICMR 2002


• Raheena, Begum : A textbook of food, nutrition and dietetics Sterling Publishers, New Delhi.


Journals

• Bulletin of the World Health Organization
• Clinical Nutrition
• Clinical Nutrition Supplements
• Critical Reviews in Food Science and Nutrition
• Current Opinion in Clinical Nutrition and Metabolic Care
• Current Science
• Diabetes Care
• Ecology of Food and Nutrition
• European Journal of Clinical Nutrition
• European Journal of Nutrition
• Food and Nutrition Bulletin
• Food Microbiology
• Health Promotion International
• Indian Journal of Nutrition & Dietetics
• International Journal of Eating Disorders
• International Journal of Food Microbiology
• International Journal of Food Sciences and Nutrition
• International Journal of Obesity
• International Journal of Sport Nutrition and Exercise Metabolism
• Journal of Epidemiology and CommModuley Health
• Journal of Human Nutrition and Dietetics
• Journal of Medical Ethics
• Journal of Nutrition
• Journal of Nutrition Education and Behavior
• Journal of Nutritional Biochemistry
• Journal of the American College of Nutrition
M.Sc. Programme in Home Science Mahatma Gandhi University

FASHION MARKETING & MERCHANDISING

Course Code: HSCF1CT03

Teaching hours: 5hrs/week

Credit: 4

Objectives:
- To understand newer development in textile/fashion market
- To understand eco-friendly textiles for garment industry
- To understand fashion marketing

Course Outline

Module 1: Newer Trends in Fibre Development

Module 3: Eco-Textiles for Garment Industry
Textile fibre classification, importance of organic fibres, eco textiles -classification, materials and importance- techno textiles, nano fabrics, functional finishes- medicinal fabrics, bio-wash, and eco- friendly textiles-organic cotton, jute, bamboo fibre, Eco parameters, Sensitizing dye stuffs

Module 4: Eco- Management for Fashion/Textile Industry 15hrs
Eco mark and environment friendly textiles, German Ban, Indian Ban, Banned Dyes, textile recycling,Quality control techniques in textile industries

Module 5: Marketing & Merchandising
Definition, Functions, marketing mix, Fashion merchandising, fashion forecasting, product development- pricing policies and strategies, Fashion Market ñcore concept, importance & objectives of marketing, marketing management and associated risks,

Module 6: Advertising
Publicity, Advertising and Distribution Channels, visual merchandising-types and display,

Module 7: Product In Relation To Fashion
Classification, product life cycle, process of product development, brand & brand image, strategies in branding. Fashion cycle

Module 8: Costing and Pricing
Costing in apparel industries-Principles and methods - pricing in relation to product type, life cycle and distribution outlets etc.
Related experiences

- Analyze and recorded the activities of fashion markets
- Collect various fibres available in the market
- Visit and study various visual merchandising techniques and record it

References

- Castelino, M. (1994): fashion Kaleidoscope, Rup and
- Mckelvey Kathryn, Illustrating Fashion Blackwel Science Munslow Janine.
- Wingate (200) Textile Science and their selection, Prentice Hall.

Journals

- Arts Marketing: An International Journal;ISSN 2044-2084
- Asia Pacific Journal of Marketing and Logistics ISSN 1355-5855
- Asian Education and Development Studies; ISSN 2046-3162
- Asian Journal on Quality; ISSN1598-2688
- Indian Textile journal
EARLY CHILDHOOD CARE & EDUCATION

Course Code: HSCF1CT04
Teaching hours: 5hrs/week
Credit: 4

Objectives:

- To get an overview of infancy and infant development as a first stage in the life span development process
- To gain knowledge and insight regarding principles of early childhood care and education
- To know about the developmental milestones
- To Equip them to identify the developmental delay
- To aware about the tools & techniques for developmental assessment
- To become aware about the early stimulation programmes
- To equip them to deal with challenged children

Course Outline

Module 1: Methods of Studying Children

Tools and techniques, Definition, aims, importance,

Module 2: Developmental Assessment

Definition, Need and Reason for infant assessment, Methodology. Assessment below two years. Different developmental milestones of children from 0 to 6. Neurological evaluation, Tools & techniques used for assessment- TDSC, DASII, DDST, DOC, Neurological evaluation, Assessment of visual & hearing impairment

Module- 3: Developmental Delays

Definition, Risk factors ñ types. Child development & Home environment assessments.

Module 4: Early Developmental Stimulation

Definition, aims, importance, Role of parents. Newborn stimulation in NICU & at Home. Sensory training, early stimulation programmes, Early intervention for the developmental delay.
Module 5: Early Childhood Education (ECE)


Module 6: Pre-school programmes

Definition, principles of programme planning, Short & long term planning. Daily programme. Pre-school organization- physical arrangement, equipment needed, maintenance of records pre-school personnel, home-school relationships.

Module 7: Teaching Aids

Types and Importance

Module 8: Intervention programmes for Children with challenges

Visual & Hearing Impairment- Signs & Symptoms, Intervention programmes, Gifted- Characteristics, identification & intervention programmes for the Gifted, Learning disabled, Autistic & Attention Deficit Hyperactivity Disorder (ADHD) children

Related experiences

1. Observing infants in various settings and prepare report as an assignment.
2. Formulating activities
3. Visit to preschool programme (eg: day care centers, play school, Balwadi, Anganwadi).
4. Preparing teaching Materials- Prepare visual aids on a related topic for the parents having children from 0 to 6 years
5. Compare the facilities and services provided by preschools in urban and rural areas.

References

- Boston: Allyn& Bacon.

• Hurlock (2008), Developmental psychology - 4th Ed.

• Hurlock (2004), Personality development

• Hurlock (2004), Personality development

• Lewis, H & Rosenblum, L.A (Eds.) the Child in its Family. New York: Plenum Press


• Nair M.K. C (2004), Module on early stimulation


Journals

• International Journal of Child Health and Human Development; 1939-5965

• Journal of Advertising, Public Relations and Marketing

• Journal of Human Development and Capabilities; Print ISSN: 1945-2829; Online ISSN: 1945-2837

• Journal of Humanities & Social Sciences

• Journal of International and Cross-Cultural Studies

• Journal of Literature, Language and Linguistics

• Journal of Multicultural, Gender and Minority Studies

• Journal of Sociology, Social Work and Social Welfare

DIET THERAPY- PRACTICALS AND INTERNSHIP

Course Code: HSCFS1CP05

Teaching hours: 5hrs/week

Credit: 2

The student will required to undergo an internship/field placement for a total duration of 2 weeks during 10 days )or during their practical periods(whichever is convenient) in 1st semester in their chosen area of interest which will facilitate their pursuing
a professional career in the same field. It is mandatory that the organization/institutions (private or public) be good professional standing. The list could include hospitals, palliative care centers, health clubs, food industries, bake houses, Organizations, hostels, cafeterias etc. The students after internship would be required to submit written reports which include schedule and plan of action. It is also envisaged that the participating organization/hospitals/institutions/Bake house will give their performance appraisal of the students work.

**Objectives:**

- To provide hands on experience for higher proficiency in their selected area of expertise by placement/internship in their pursuing a professional career in the same field.
- To provide opportunities to understand and experience ground realities/program structures.
- To provide opportunities to work independently as dieticians personnel in an agency/program setting understanding of the practical aspects of knowledge and skills acquired during the course work in the relevant area.
- To enable the students to acquire an in depth knowledge.

**Contents**

- Participation in ongoing programmes of agencies /institutions and interaction with agency personnel at different levels.
- Observation/participation with patients(if it is in hospital)/ beneficiaries of the agency/program(other institutions)
- Select 2-3 admitted (if it is in hospital)/ and study the clinical, nutritional and biochemical Patients/Institutional cuisines/serving/Kitchen training/Bakery products (beneficiaries of the agency) In any one interested area.
- A report on internship (Both record of practical work done for related experience and report of the internship will be valued by external examiners)

**SEMESTER -II**

**FASHION ILLUSTRATION AND DESIGN**

**Course Code:** HSCFS2CT06

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives:**

- To give a depth knowledge of fashion designing in a technical way.
- To gain knowledge in fundamentals of fashion designing.
- To get practical experience in illustrating apparel designing.
• To develop and understand the principles of pattern making.
• To impart knowledge in apparel production, marketing and merchandising.
• To enable the students to develop skills in garment construction.

Course Outline

Module 1: Components of Fashion Designing
Principles, elements of design, Colours- harmony, illustration of figures from different sources- photographs, magazines, models. Composition of fashion- Silhouette, fabrics, texture, colour, seams, trims

Module 2: Costume Designing
Designing ñ Definition, methods, designing of garment from a thematic source

Module 3: Study on human figure
Drawing of different croqui-8 head-fashion-child(5 head)man(8 head)

Module 4: Neck and sleeve patterns
Neckline and collars-suitability and study of shape of the face; Sleeves-set in and sleeve as part of the garment

Module 5: Garments
Traditional and modern- Classification according to Shape-shirt-tops-T-shirts-trousers-dhoties-skirts-culottes-sari blouses -salwar- churidar Skirt with yoke, Circular skirts

Module 6: Lay Outs
Lay outs on different fabrics, width and types, designs, woven, knitted, seam allowances for woven and knitted fabrics

Module 7: Development of Pattern with Variations
One Piece Dress, Two piece dress, Dart less dress, Incorporating various collars, sleeves, yokes, necklines, pockets and plackets), Developing garment on a theme Casual, Formal, evening, wedding, night wear, executive wear Special, Sports. Costumes for different ages- Factors, techniques, samples

Module 8: Surface Embellishments
Trimmings and decorations:- laces, tassels, tucks, show buttons, eyelet and cord, bead work, cut work. Details of various types of trims used (interlining, shoulder pads, buttons, thread, labels, hang tags, size disc, hanger, hook and bar, zippers, lining, pocketing), significance of each trim, sources
Related experiences

- Make sketch book- various techniques in portfolio
- Design different costume styles portfolio
- Prepare a portfolio only by drawing for (ten)sleeves, (ten)collars and (ten) neck lines and combination of these .
- Make 3 samples with surface ornamentations and record in port folio

References

- Mckelvey Kathryn, Illustrating Fashion Blackwel Science Munslow Janine.
Journals

- Vogue
- Fashion Design Illustration: Men; ISSN: 0950-412

**ERGONOMICS & INTERIOR SPACE DESIGN**

**Course Code:** HSCFS2CT07

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives:**

- To become aware of the role of ergonomics in work effectiveness and efficiency
- To understand the environmental factors contributing to productivity, safety, control and wellbeing of individual performing the work

**Course Outline**

**Module 1: Ergonomics**

Definition, scope and principles of ergonomics in home. Man-Machine & Environment system. Anthropometry and biomechanics-definition, effect of wrong postures on cardiovascular and muscular skeletal systems-principles of motion economy-design application of anthropometry

**Module 2: Considerations of Ergonomics in Interior Design**

Importance of ergonomics in interior design, Work, worker and working environment Relationship, Kitchen and storage as most important work area; Modular kitchen, Ergonomically evaluation for health and safety of user in residential space design; Study of different body posture used in different activities and its relation to fatigue.

**Module 3: Indoor Environment**

Physical, Heat-Thermal regulation of the body at rest and during work, Factors responsible for exchange of heat between body and surrounding environment, Thermal comfort.

**Module 4: Atmospheric pollution**

Atmospheric pollution-Effect of noise, music on productivity and well being lighting and colour-effects. Atmospheric pollution-Psycho-social environment-Effect on health

**Module 5: Residential Interior Space Design**

Factors to be considered while designing-Orientation, grouping, circulation, light, ventilation, Flexibility, privacy, roominess, services, aesthetics and cost. Enrichment of interiors- Landscape elements, indoor gardens - potted plants. Study of factors influencing...
furnishing of interior spaces and factors to be considered while designing-
orientation, grouping of user’s idea, light and ventilation, flexibility, privacy, Roominess (spaciousness), services, aesthetics, cost in residential buildings

**Module 6: Residential furniture**

Sofa, diwan, chairs, centre table, wall Module, dining table, side board, kitchen Module, bed, wardrobe, dressing table etc.

**Module 7: Commercial Interior Space Design**

Current trends in interior design, and architecture. Planning of interiors of commercial spaces with consideration of functions, orientation, grouping section of areas, circulation, light, ventilation, privacy services, aesthetics ergonomically consideration and cost. Remodeling, alteration, repairs, aesthetics and suitability

**Module 8: Materials and finishes**

Wood, glass, plastics, metals, acoustical boards, paneling materials, false ceiling a materials, selection criteria.

**Related experience**

- Evaluation report on commercial interior space or residential interior space- with reference to floor plan, layout and design.
- Determination of work load using heart rate and oxygen consumption
- Treadmill, Bicycle ergometer
- Types and models of furniture in homes

**Reference**

- Alexander MJ & Mercourt Brace i Designing interior environment
- Ball Victoria Kloss, The art of interior Design
- Graham William, i Lighting your own house
- Grandjean Eeffnns, ergonomics of the Home
- Alexander N.J., Mercoust brace 1972 Designing interior environment
Journals

- International Journal of Industrial Ergonomics; **ISSN: 0169-8141**
- *Journal of Interior Design; Online ISSN: 1939-1668*
- Bathroom & Kitchen Update magazine; Trade magazine on Kitchen and bathrooms
- Bathroom Journal; provides retailers, merchants, specifiers and buyers with a valuable source of product news and informed comment
- Contract kitchen & bathroom journal; has news of products and developments from all sectors of the industry
- Designer; oriented at the kitchen, bathroom and interior design.
- 25 Beautiful homes; provides 25 homes full of ideas that readers can transfer to their own homes.
- 25 Beautiful Kitchens; inspirational ideas and practical advice for people who are actively seeking to make a change in their kitchen.
- ABC&D; provides building industry specifiers with comprehensive coverage of developments in products, materials and technology
- Blueprint; magazine for leading architect and designers
- Contemporary; a multi-faceted magazine, covering visual arts, news, books, trivia, architecture, design, fashion, film, music, new media, photography, dance, sport and much more.
- Design week; design news from across a range of commercial design disciplines.
- Elle Decoration; a luxury and modern interiors magazine
- FMX magazine; a voice for the Facilities professional. News, workplace guides, in-depth analysis and product reviews
- FX; design, products and architecture news.
- Good Homes; a decorating magazine that shares its readers’ passion for updating and transforming their homes.
- Grand Designs; innovative, sustainable architecture and design from around the world
- Homebuilding & Renovating; the self-build and renovation magazine and website
- House & Home Ideas; products and best buys, inspirational ideas for your home.
- House and Garden; a guide for stylish living
• House Beautiful Uk; style inspiration and deco ideas for every home

• Icon; architecture and design magazines, with interviews, analyses new cultural movements and technologies, and reviews a range of exhibitions, books, products and films.

FOOD SAFTEY, QUALITY CONTROL AND PROCESSING TECHNOLOGY

Course Code: HSCFS2CT08

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To understand the importance of microorganisms in food spoilage

• To learn advanced techniques used in food preservation

• To latest procedure adopted in various food operations to prevent food borne disorders and legal aspects involved in these areas

• To provide necessary knowledge of basic principles and procedures in the production of important food products

• To know the importance of quality assurance in food industries

• To know various tests and standards for quality assessment and food safety

• To know various tests used to detect food adulterants

• To applied aspect of food processing and technology

Course Outline

Module 1: Introduction

Introduction to quality assurance and food safety assurance, current concepts of quality control. Food quality, Quality control- parameters followed in quality control, important considerations, and principles of quality control

Module 2: Food Sanitation and Hygiene

Food Toxins/Contamination of food:- Main Groups of Food Toxins ñ prevention/control; Classification of toxic chemicals in foods-

A. Natural toxicants in foods ñ (i) Toxic amino acids , (ii) Toxic alkaloids, (iii) Cyanogenic glycosides,(iv) Tropism inhibitors, (v) Haemagglutinins, (vi) Flatulence factors
B. Natural toxicants entering through contaminants:- (i) Plant origin, (ii) Microbial Origin, (iii) Biological origin


Module 3: Food Safety & Food Quality

Food borne infections:- (i) Bacterial Diseases- Typhoid fever, Salmonellosis; (ii) Viral diseases- Viral hepatitis, Gastroenteritis and (iii) Infections due to parasites; Taeniasis, Amoebiasis

Water- potable water, sources of contamination, treatment of water; Food and Food handling and the sources of contamination; Practical rules for food sanitation; The HACCP system and principles, food safety used in controlling microbiological hazardsRole of microbes in fermented foods and genetically modified foods. Introduction to quality assurance and food safety assurance, current concepts of qualitycontrol. Food quality, Quality control- parameters followed in quality control, important considerations, principles of quality control

Module 4: Food Laws and Food standards:


Module 5: Food Processing

Physical & chemical principles in food processing operations; Thermal-refrigeration-freezing-dehydration-ionising radiations; Sugar-salt-curing-smoking-acid and chemicals; Changes in texture, flavor, colour, nutritive value and safety during handling, storage and processing; chemical and biochemical reactions affecting food quality and safety

Module 6: Food Preservation

Methods-preservative agents-biologically based preservation systems and pro-biotic bacteria

Module 7: Food additives

Definition, acids, bases, buffer system and salt, chelating agents, anti microbial agents, sweeteners, stabilizers, thickeners, fat replacers, firming, texturisers, flavor enhancers,
aroma substances, sugar substitutes, sweeteners, antioxidants, anti-caking agents, protective gases

**Food Adulteration and Labelling:** Common Adulterants, Effects of Food Adulteration, simple tests to detect adulterants in foods, prevention of food adulteration, Nutritional Labeling.

**Module 8: Functional Foods and Technologies**

Functional foods and technologies to meet special needs [Genetically modified foods, importance of these unconventional foods in human nutrition] New advances-Nutraceuticals, pro-biotics and pre-biotics

**Practical experience**

- Study of environment around us source of transmission of microorganisms in foods. Assesment of surface sanitation of food preparation Moduleis’s swab and rinse techniques

- Bacteriological analysis of food-processed and unprocessed

- Visit to food processing Modules

- Testing the water quality for the following parameters:
  - Colour
  - (ii) odour
  - (iii) Taste
  - (iv) PH

- Survey your neighboring areas and find out the commonly used class I and class II food additives

- Detect the common adulterants found in the following food samples using simple physical and simple laboratory chemical tests:
  - (i) Chilli Powder
  - (ii) Coffee powder
  - (iii) Ghee
  - (iv) pepper corns
  - (v) pulses (split and dehusked)
  - (vi) Turmeric powder
  - (vii) Milk and butter
  - (viii) Honey

**References**


**Journals**

- Food and Bioprocess Technology; ISSN: 1935-5130 (print version)
RESEARCH METHODS AND STATISTICS

Course Code: HSCFS2CT09
Teaching hours: 5hrs/week
Credit: 4

Objectives

- To understand the significance of research methods and statistics in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
- To understand and apply the appropriate statistical techniques to analyse numerical data and draw inferences.

Course Outline

Module 1 — Introduction to Research
Definition, Objectives and Characteristics of research, Types of Research — Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research.

Module 2 — Identification of Research Problem
Sources of research problem, Criteria for the selection of research problem. Research design, Rationale, Statement of problem, Setting objectives, Definition of concepts, operational definition, variables — independent and dependent, control and intervening variables, limitations and delimitation. Hypothesis — Meaning and importance, types of hypotheses.

Module 3 — Sampling
Population and Sample, Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non sampling errors.
Module 4 ñ Research methods and tools


STATISTICS

Module 1 - Descriptive Statistics:

Measures of Central Tendency ñ Mean, Median, Mode; Partition Values ñ Quartiles, Deciles and Percentiles, Measures of Dispersion ñ Range, Quartile deviation, Standard deviation. Absolute and Relative measures of dispersion, Coefficient of variation.

Module 2 - Correlation and Regression:

Correlation and Regression. Scatter diagram, Correlation, Coefficient of Correlation ñ Karl Pearson and Rank Correlation Coefficients. Interpretation of Calculated coefficients. Concept of Regression, Regression Lines and their estimation.

Module 3 - Concept of Probability and Random Variable.


Module 4 - Sampling distributions

Sampling distributions, F and $\chi^2$ distributions. Central Limit theorem, Standard error and its importance and applications. Testing of Hypothesis ñ Hypothesis, Null and Alternative hypothesis, Type I and Type II errors, Significance Level and size of test, Critical Region, Testing Procedure concept of P Value in testing. Large and small sample tests ( Z, t, F and $\chi^2$ statistics)

Related Experience

A five day training in using SPSS or similar package used in statistical analysis of data.

References


KINDERGARTEN TRAINING /ECCE/ SPECIAL EDUCATION

PRACTICAL

Course Code:   HSCFS2CT10

Teaching hours: 5hrs/week

Credit: 2

The student will required to undergo an internship/field placement for a total duration of 2 weeks during (10 days) or during their allotted practical hours in the 2nd semester in their chosen area of interest which will facilitate their pursuing a professional career in the same field. It is mandatory that the organization/institutions (private or public) be good professional standing. The list could include Preschools, Nurseries/Anganwadies/Balwadies, special schools/ ADHD etc. The students after internship would be required to submit written reports which include schedule and plan of teaching practice. It is also envisaged that the participating organization/schools/institution will give their performance appraisal of the students work.

Objectives

• To acquire skills in planning, organizing and implementing programme in a pre-school (rural and urban)

• To familiarize students with community and parents regarding ECCE.

• To develop skills in organizing community and parental awareness programmes in rural and urban areas relating to early childhood.

• To provide hands an experience for higher proficiency in their selected area of expertise by placement/internship in their pursuing a professional career in the same field.

• To provide opportunities to understand and experience ground realities/program structures

• To provide opportunities to work independently as Human development personnel in an agency/program setting understanding of the practical aspects of knowledge and skills acquired during the course work in the relevant area.
• To enable the students to acquire an in depth knowledge in teaching practicum
• To get training in the preparation of teaching AIDS/lesson plans

Contents

• Participation in ongoing programmes of agencies /institutions and interaction with agency personnelis at different levels
• Observation/participation with clients/ beneficiaries of the agency/program
• Select two themes to teach the children on that basis and evaluate
• A report on intern ship
• Preparation of teaching AIDS

(Both record of practical work(related experience) and report will be valued by external examiners)

SEMESTER-III

PROGRAMMES FOR CHILDREN AND FAMILY & GUIDANCE AND COUNSELING

Course Code: HSCFS3CT11

Teaching hours: 5hrs/week

Credit: 4

Objectives

• To understand the need for guidance and counseling
• To introduce basic concept in guidance,counseling and therapy
• To discuss the processes involved in counseling at different stages of life

Course outline

Module 1: Management of Programmes for Children and Family

Meaning and importance, management skills, review of success and failure of different programmes.

Module 2: Programmes for Children and Family

Identification of specific programmes, Types and Management;

Module 3: Guidance and Counseling

Basic differences- Principles, needs of individuals, families and systems, Current Issues and Trends; group techniques in guidance and counseling
Module 4: Principles of Counseling and Therapy

Needs, Principles and Objectives, Role of culture in counseling programmes;

Module 5: Nature of psychological disorders at different stages that require counseling and therapy

At childhood, At adolescence and youth- need of vocational counseling at school and college level, at adulthood and in old age;

Module 6: Therapy in different stages

Therapy in different stages- Approaches to counseling at different development stages; Family therapy approach

Module 7: Qualities and skills of a counselor

First contact, assessment, intervention, closure, follow up (observing, listening and communicative skills). Alternative forms of counseling therapy- Yoga, Reiki, Life skill education

Module 8: Guidance and counseling of children with special needs.

Scholastic backwardness, emotional and behavioral problems, developmental problems, mental retardation and visual impairment.

Related experiences

- Interaction with practicing counselors and therapists through visit to schools, clinics, womenís centers and hospitals.
- Organize, implement & evaluate programmes for children and family
- Counsel 5-10 people and report (role play, mock section)

References


• Journals

• Psychosocial Treatment for Children and Adolescents with ADHD (WWK7)

• British Journal of Guidance &Counselling; Print ISSN: 0306-9885;Online ISSN: 1469-3534

### APPAREL PRODUCTION TECHNIQUES AND QUALITY CONTROL

**Course Code:** HSCFS3CT12

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives**

- To enable the student to obtain perfection and harmony between the fabric and design
- To develop an understanding of a sample pattern using industrial sample procedure
- To enable the students to get acquainted with the latest garment manufacturing technology

**Course Outline**

**Module 1: Fabric structure, design and properties**

Fabric- strength, elongation, shrinkage, colour fastness, thickness, cover, elongation, comfort & clothing physiology-fabric width, needle size, thread types; Fabric design-one way, two way, stretch-non-stretch

**Module 2: Outline of Production Techniques**

Fabric & thread package, Pattern Making- drafting, draping. Drafting- introduction, methods and importance, Developing draft for- Menis, Womenis and childrenis garments.

**Module 3: Pattern alteration**

Grading- Introduction, methodology- track or stack method; procedure for grading blocks to various sizes & styles
Module 4: Garment Industry

Back ground, Structure, Organization- principles of management, functions of various departments (design department, marketing department, finance department, purchasing department, production department and operation department

Module 5: Apparel Production

Fabric inspection and cutting room ű inspection of fabric and its control, various methods of spreading fabric, use and importance of marker, methods of laying patterns, yardage control in cutting room,

Module 6: cutting room Techniques

Types of cutting machine, uses, fusing, operation of fusing machine, quality aspects in fusing.

Module 7: Production engineering, finishing

Pressing equipment. Trimmings, packing, warehousing and shipping. Method of bundling and ticketing.

Module 8: Quality Control

Principles of quality control. Quality control Ź from fabric to warehousing stage; principles of quality control - SQC, Quality department, Quality audit, quality monitor, Quality circles, Quality control for exports, operation of quality control systems, design, Standard, levels of standard. Functions of Quality Assurance department, quality check and final inspection, methods of checking, and consignment at final inspection and measurement tolerances in garments.

Related experiences

- Make sample salwar/churidar and top
- Do pattern alteration and make 2 patterns from the basic pattern by pattern alteration & grad in 2 sizes
- Make drafting (only drafting) for the following costume and grade in 2 ups and 2 down sizes by track grading
  - Salwar/churidar
  - Salwar top
  - Baby Frock with collar and sleeve
- Visit to a garment industry

References


• Ireland P.J. (2007) New fashion Figure Templates, Anova Co. Ltd, London


• Dickerson. K.G ((2009) Inside the fashion Business.


• Pamela C.Stinger, Pattern Drafting for Dress Making.

• Hillhouse, M.S. and Mansfield, E.A, :Dress Design- Draping and Flat Pattern, London

• Garment Technology for Fashion Designers, Gerry Cooklin, Blackwell Science Ltd

• Patrick John Ireland, Fashion Design Illustration: Men

Journals

• Garment Manufacturers Audit Technique Guide (ATG)

• International Journal of Fashion Design, Technology and Education; Print ISSN: 1754-3266;Online ISSN: 1754-3274

• Production Planning &ControlISSN 0953-7287 (Print), 1366-5871 (Online)

• Journal od Economic Perspectives

• Apparel Industry
HOUSING AND HOSPITALITY MANAGEMENT

Course Code: HSCFS3CT13

Teaching hours: 5hrs/week

Credit: 4

Course Outline

Module 1: Housing

Functions, selection of site, principles of planning house, flats, twin house, sky scrapers, consideration for special needs-children, aged. Factors affecting housing-social, cultural, climate, location and physical features.

Module 2: Building materials

Economy in construction -low cost sustainable housing materials and building technology - Lime sand brick, hollow blocks, decorative concrete block, concrete panel, straw panel, s-panel, roofing materials, House-Financing institutions, its adequacy and limitation.

Module 3: Architecture

Greek architecture-history, art, architectural character, style, order Roman architecture: Arch, dome, building, materials Gothic architecture: Materials, characteristics, arches.

Module 4: House

Drawing different house plans for different income groups, symbols, abbreviations, lines, foundations, column, open floor plan, multipurpose room, family activities and space requirements. Changes in housing needs and standards .Factors affecting housing-Social, cultural, demographic, climatic etc.(Repetition as in module 1) Housing for people with special needs-Physically challenged Housing standards and housing legislation-Building Codes, Floor space index.
Module 5: Residential Neighborhoods

Selection of site, Zoning Principles, astrological aspects-Vaasthusasthra
Building services and utilities-Water, drainage, waste disposal, electricity, fire resistance, security systems.

HOSPITALITY MANAGEMENT

Module 6: Hospitality Functions

Types of institutions offering hospitality services-Role of housekeeping in hospitality industry, housekeeping in relation to commercial and welfare

Module 7: Management of Housekeeping Department

Layout of housekeeping department; Planning, organization and communication of housekeeping activities. Coordination with other departments

Module 8: Roles/responsibilities of housekeeping Department

Roles/responsibilities of personal in the housekeeping department in hospitals, hotels, restaurants; Linen room, linen, uniform, bedding, beds-Layout, plan activities of the linen room, different jobs that can be given as contract, linen storage and control, table linen, bed linen, bedding, bed making and turning down, laundry method, uniform, fabric stain removal security and sanitation: safety, firefighting, first aid safety in equipment use, pest control, sanitation standard.

Related experience

- A survey on the building materials used
- A survey on houses types
- Assessment of floor space index of flats
- Layout of housekeeping department in a hospital and a five or 3 star hotel
- training as housekeeping personnel

References

Journals

- International Journal of Contemporary Hospitality ManagementISSN: 0959-6119
- Information Technology and Tourism
- International Journal of Contemporary Hospitality Management
- International Journal of Culture, Tourism and Hospitality Research
- International Journal of Hospitality and Tourism Administration
- International Journal of Hospitality Knowledge Management
- International Journal of Tourism Policy and Research
- International Journal of Tourism Research
- International Travel Law Journal

SCIENTIFIC WRITING AND PROJECT FORMULATION

Course Code: HSCD3CT14

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To be able to appreciate and understand importance of writing scientifically.
- To develop competence in writing and abstracting skills.

Course Outline

Module 1: Scientific writing as a means of communication

Different forms of scientific writing. Articles in journals, Research notes and reports, Review articles, Monographs, Dissertations, Bibliographies, Book chapters and articles.

Module 2: How to formulate outlines

The reasons for preparing outlines: as a guide for plan of writing, as skeleton for the manuscript, Kinds of outlines, Topic outlines, Conceptual outline, Sentence outlines, Combination of topic and sentence outlines

Module 3: Drafting titles, Sub titles, tables, illustrations

Preliminary processing of data, Classification and organization of data, Objectives of classification, Tabulation of data, General rules of tabulation. Tables, Parts of a table,
Types of tables. Representation of data ñ Significance of diagrams and graphs, Types of diagrams and graphs, advantages and limitations

**Module 4: The writing process**

Getting started, Use outlines as a starting device, Drafting, Reflecting, re-reading ; Checking organization, Checking headings, Checking content, Checking clarity; Checking grammar, Brevity and precision in writing, Drafting and re-drafting based on critical evaluation

**Module 5: Parts of dissertation/research report/article**

Introduction, Review of literature, Methods, Results and discussion, Summary and abstract, References. Ask questions related to: content, continuity, clarity, validity, internal consistency and objectivity during writing each of the above parts.

**Module 6: Writing for Grants**

The question to be addressed, Rationale and importance of the question being addressed, Empirical and theoretical framework, Presenting pilot study/data or background information, Research proposal and time frame; Speciality of methodology, Organization of different phases of study, Expected outcome of study and its implications, Budgeting, Available infra-structure and resources, Executive summary

**References**


**INTERIOR SPACE DESIGNING (COMMERCIAL AND RESIDENTIAL) - PRACTICAL**

**Course Code:** HSCF3CP15

**Teaching hours:** 5hrs/week

**Credit:** 2

All students shall do a study for 2 weeks (10 days) or during their allotted practical hours in 3rd semester (preferably during the end of 2nd semester vacation). The students can take up malls/hotels/institutions/industries in groups of minimum two. The groups are required to study and document the space arrangement in malls/hotels/rooms/front offices/high level private residences/Industries/Institutions/Health clubs/organizations or they can even undergo training in housekeeping. The student can select their choice of interested either interior space designing or housekeeping etc. Each group has to derive, design and plot a collection of minimum 2 to 3 malls/residence/hospital/restaurants/Industries/Institutions/Health clubs/organizations inspired from the Interior space designing in contemporary styling or housekeeping practice. The documentary and the collection of drawings/photographs have to be presented during the 3rd semester.

**Objectives**

- To develop creative designing sensibilities among students for developing ensembles through thematic presentations and interpretations.
- To introduce the students as interior designers.
- To develop creative entrepreneurs.
- Each student will conceptualize and develop a collection of at least 2 to 4 ensembles which demonstrate the student creativity and understanding of the malls/hotels/office/residence space arrangement and the student can present a better space arrangement than the present one.
- The collection will be displayed as a demo.
- To develop interest in photography by taking photo and documenting.

**Documentation**

For documentation there is no external evaluation. The break up for internal evaluation of documentation is as follows.
### Component Weights

<table>
<thead>
<tr>
<th>Component</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>2</td>
</tr>
<tr>
<td>Lay out/floor plan /house keeping</td>
<td>3</td>
</tr>
<tr>
<td>Interior architect/book keeping</td>
<td>2</td>
</tr>
<tr>
<td>Depth of study</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

INTERIOR SPACE DESIGNING DOCUMENTATION- 2 weeks during end of 2nd semester break or on any convenient time.

The students are taking up in groups of minimum two to a specific malls/hotels/restaurants/cafeteria/hospitals and are required to study and document the arrangements of furniture and other arrangements in the available space. This programme enables the students to get a good understanding of the interior designing and residential/commercial space arrangements. This program also helps the students to absorb value in interior space arrangements

The students are required to study:

1. Visualizations of the design for resident and commercial interiors People and lifestyle (customs, beliefs, architecture).
2. Information about the interior requirements for the particular use.
3. Derive a collection of minimum 2 malls/buildings inspired from the craft in contemporary styling.

Contents of the introductory classes for the programme:

1. Visualizations of the design for resident and commercial interiors.
2. Layout of smaller and bigger residence and commercial areas.
3. Working drawings-sectional elevation and perspectives
5. How to plan layouts and the techniques.(1 to 5)
6. A photography module
7. Outdoor study on interior designing.
8. Frame photographs/illustration.
9. Interior designing & space arrangement presentation.
10. Housekeeping plans/book keeping
INTERIOR SPACE DESIGNING DOCUMENTATION

Objectives:-

The students document all their presentable work done as related experience in family resource management and interior designing through all semesters and those that portray the student's areas of interest. The documentation can be an effective means of communicating the capacities and capabilities of the students to anyone who seeks their skills and talents. The students are free to select a convenient place.

The students have to document all their best presentable work done through all the semesters and those that portray the student's area of interest. The documentation can be an effective means of communicating the capacities and capabilities of the students to anyone who seeks their skills and talent. Their presentation will be evaluated at the end of the 3rd semester by an internal examiner.

The break up for internal evaluation of portfolio making is as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
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<tr>
<td>Punctuality</td>
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</tr>
<tr>
<td>Creativity</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
</tr>
</tbody>
</table>

The evaluation of all components is to be published and is to be acknowledged by the candidate. (Portfolio, interior space designing/housekeeping internal ship and record work will be evaluated by external examiner)(Both record of practical work and report will be valued by external examiners)

SEMESTER IV
SUSTAINABLE DEVELOPMENT & ORGANIZATION

Course Code: HSCF4ET01

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the concept of sustainability
• To understand the relationship between environmentally sound technologies and sustainability
• To develop awareness and improvement in administrative and managerial skill
• To acquaint students with human resource development through personnel relation

Course Outline

Module 1: Concept of Sustainable Development

Meaning, concept & Environmental and economic sustainability, Interlink ages of peopleís participation for building knowledge, capacity of people and local institutions & environmentally sound technologies

Module 2: Sustainability and Community Resource Perspective

Natural and shared (air, water, fuel, flora, fauna) institutional inputs. Indicators of environmental unsustainability-new paradigm of development. Efficiency in use of human Resources-efficiency & effectiveness

Module 3: Factors affecting sustainability

Factors affecting sustainability of Community resource management initiatives-institutional sustainability, credibility, public image, style of functioning, human resource accountability

Module 4: Organizations in the Development

Theories of development; people centred development-organizations involved in the development; government, cooperate, voluntary sector-developing organizational structures for facilitating micro and macro level interventions for facilitating development

Module 5: Methods and Techniques

Improving resource use-questioning approach, development of labour saving device, indigenous, improvement in working conditions, changing attitudes, developing efficient working methods-training for personality development and leadership

Module 6: Office Management

Organization, structure and staff responsibilities. Fundamental principles of accounts, balance sheet, cost flow, fund flow-management of office, information systems-role-needs, system management

Module 7: Cost Control

Inventory management, budget process, controlling expenses Safety, security, Personnel management-recruitment training, handling personal promotion, and evaluation, distribution of jobs, job schedule and analysis. Cost control: inventory management, budget process, controlling expenses.
Module 8: Safety, security and sanitation

Safety, firefighting, first aid safety in equipment use, pest control, sanitation standard.

Related Experience

- Study and record advantages and lack of in the initiatives of a societal structures in sustainable community resource management initiative
- Designing training programmes for developmental goals
- Organizing and conducting training programmes
- Visit training and development organizations and record
- Visit an industry and check the methods adopted for safety

References

- APPLIED ECOLOGY AND ENVIRONMENTAL RESEARCH, international scientific journal published by the Landscape Architecture and Landscape Ecology PhD School of the Corvinus University of Budapest (Hungary) ISSN 1589 1623 (Print) ISSN 1785 0037 (Online)
- Basu RN (2000) Environment, University of Calcutta
- Climate and Development, The leading international peer-reviewed journal on the links between climate and development
- Environmental Hazards, ISSN 1747-7891, Online ISSN: 1878-0059
- Global Environmental Change, Human and Policy Dimensions, ISSN: 0959-3780
- Global Journal of Environmental Research, ISSN: 1990-925X, EISSN: 1999-8155
- Hara Lombos-sociology: Themes and perspectives
PRODUCT DEVELOPMENT, MARKETING AND ENTREPRENEURSHIP DEVELOPMENT

Course Code: HSCF4ET02
Teaching hours: 5hrs/week
Credit: 4

Objectives
- To understand and know various aspects of product development
- To develop products which meet consumer needs and commercially viable
- To recognize the potential for entrepreneurship marketing

Course Outline

Module 1: New Product Development
Definition and concepts and significance of product design- Factors that initiate the need for new product development Factors shaping new product development-social concern, health concern, impact of technology and market place value

Module 2: Managing Product Development Process
Product development process, the role and nature of design, project brief, project plan, types of design organization, information and literature search, patents, standards and codes. Product design specifications, concept generation and selection, embodiment design, design review and release, design changes and improvements.

Module 3: Market Research and Customer Requirement Analysis
The product life cycle, product position and benchmark analysis, market estimates, market segmentation and product diversification, lead user analysis, customer requirement analysis.
Module 4: Product Appraisal

Functional analysis, manufacturing analysis, economical analysis, aesthetic and ergonomic considerations, environment and safety, installation, service and maintenance. Design theory and methodology.

Module 5: Quality Control


Module 6: Entrepreneurship

Definition, characteristics, employment promotion, Business environment for an entrepreneur and agencies role of SSI, procedure for setting up SSI, role of MIDC, Plant location, investment, financing the project, Launching and organizing an enterprise-enterprise selection-market assessment feasibility of the enterprise, SWOT analysis

Module 7: Management techniques

Planning, organizing, appointing staffs, executing, controlling, and review-financial management, working capital, bank funding, sales promotion, labour law application

Module 8: Packaging

Packaging-concept, definition, significance, classification-types of packaging, materials used for packaging, packaging system and methods for food products (storage handling and distribution of packages), readymade costumes and apparels, furnishings, accessories-aesthetics and graphic design-packaging laws and regulations. Difference in packaging food and other consumer products

Related experience:

- Consumer survey to identify new production terms of new form/reformulation-new packaging of existing products-innovative product-creative products (make separate study on food products, dress/accessories/furnishing etc)
- Identification of product for development concept-market research the concept and concerned product
- Development of product and screening the products, developing criteria for screening scaling up
- Test marketing
- Prepare a Project report for starting a small enterprise
References

- Koen et al. (2001), Providing clarity and a common language to the fuzzy front end. Research Technology Management, 44 (2), pp.46-55
• Graf E and Saguy IS(2001) Food product Development From concept to market place, VanNostrandReinhold, Newyork

**Journals**

• Asia-Pacific Journal of Business Administration; 1757-4323
• International Journal of Product Development (IJPD)
• ISSN (Online): 1741-8178 - ISSN (Print): 1477-9056
• Journal of Food Products Marketing; ISSN 1045-4446 e-ISSN 1540-4102
• Journal of product innovation management
• Industrial Marketing Management
• Industrial Relations
• Industrial Relations Journal
• International Journal of Operations & Production Management
• International Journal of Physical Distribution & Logistics
• International Journal of Production Research

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**HUMAN RIGHTS, MENTAL HEALTH PERSPECTIVES AND GERONTOLOGY**

**Course Code:** HSCF4ET03

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives**

• To give an awareness about human rights and duties to the students
• To understand the importance of mental health at different stages in life
• To enable students to become aware sensitizes to issues related to care of the elderly.

**Module 1: Human Rights**

Human rights classification - Moral, legal, civil and political, social emotional and cultural rights-Environmental and developmental rights.
Module 2: Constitutional rights and amendments

Child rights—gender disparities, foeticide, girl child, Women rights—forms of violation of human rights violation against women at home, sexual harassment, rape, health and nutrition based deprivations, crime against women, political discrimination

Module 3: Mental Health

Definition, Concept and importance of holistic health, wellbeing and happiness; national mental health policy of India (1982)

Module 4: Community Mental Health

Needs and Programmes.

Module 5: Mental Health in Different Stages

Infancy- Needs and importance; characteristics of mental maturation, Influence of family.Middle Childhood- Needs and importance, school related problems and management-discipline, truancy, fear and phobias, learning difficulties & disabilities.Adolescence- Needs and importance, Problems related to physical appearance, sexuality and social role, conflicts (eg: - parents, school authority, grandparents.)

Module 6: School Mental Health Programmes

School Mental Health Programmes ñ Need, identification and intervention; improving school climate; importance of teachers and administrators in mental health aspects of children, teacherís orientation towards classroom behavior problems, guidance and counseling

Module 7: Gerontology

Definition—Ageing process— biological, physiological, social, spiritual and economic aspects; Adjustment pattern— family pattern, marital adjustment, intergenerational family relations.

Module 8: Services and Programs for Aged

institutional services, leisure time activities, Re-engagement, retirement pension, death cum retirement gratuity, provident fund, insurance scheme, investment & taxation.

Practical Experiences

- Visit to Human Rights Organization
- Report a case study of women/children in difficult circumstances
- Design a mental health intervention programmes for any one age group
- Visit to and report of old age homes
- Organize recreational activities in homes for aged
References


Journals

- **Behavior and Social Issues** is an interdisciplinary journal which serves as a primary scholarly outlet for articles that advance the analysis of human social behavior, particularly with regard to understanding and influencing important social problems. http://www.bfsr.org/BSIONLine.html
- **Current Research in Social Psychology (CRISP)**. A peer-reviewed, electronic journal covering all aspects of social psychology. Publication is sponsored by the Center for the Study of Group Processes at the University of Iowa which provides free access to its contents. http://www.uiowa.edu/%7Egrpproc/crisp/crisp.html
- **Electronic Journal of Human Sexuality** disseminates knowledge about all aspects of human sexuality to the widest possible international audience. http://www.ejhs.org/
• **Evolutionary Psychology** is an open-access peer-reviewed journal that aims to foster communication between experimental and theoretical work on the one hand and historical, conceptual and interdisciplinary writings across the whole range of the biological and human sciences on the other. http://human-nature.com/ep/

• **Internet Journal of Mental Health**. Accepts submissions with a broadly defined definition of mental health. This includes manuscripts discussing psychiatric disorders, psychological strengths, psychological difficulties, the interaction of physical and mental health, and the psychosocial aspects of both medical and psychiatric disorders. http://www.ispub.com/ostia/index.php?xmlFilePath=journals/ijmh/current.xml

• **Journal of Articles in Support of the Null Hypothesis**. In the past other journals and reviewers have exhibited a bias against articles that did not reject the null hypothesis. The journal seeks to change that by offering an outlet for experiments that do not reach the traditional significance levels (p < .05). http://www.jasnh.com/

• **Journal of Credibility Assessment and Witness Psychology (JCAAWP)**. Publishes original empirical, review, and theoretical work in all areas of the scientific study of credibility assessment and witness psychology. http://truth.boisestate.edu/jcaawp/default.html

CLOTHES, FURNISHING AND NUTRITION FOR SPECIAL NEEDS
(SPORTS, FITNESS AND DISABILITIES)

Course Code: HSCF4ET04

Teaching hours: 5hrs/week

Credit: 4

Objectives

- Understand the importance of comfort in dress and food in health and fitness
- Know the physiological changes for nutritional requirements & clothing and for comfort during sport events
- Develop ability to evaluate fitness and well being

Course Outline

**Module 1: Physical fitness and health**

Introduction to physical fitness and wellness-principles of clothing and principles of nutrition for health

**Module 2: Physical Fitness**

Objectives and motivational factors-new fibres for-micronaire-spandex
Module 3: Comfort

Thermal protection- Fabric properties and thermal comfort- Measurement of water vapor permeability- Thermo-physiological comfort Sensorial/tactile comfort-Mobility/Dexterity-Psychological comfort

Module 4: Clothing Physiology and Comfort

Thermo-physiological comfort- Sensorial/tactile comfort-Mobility; Psychological comfort- Aesthetic Comfort-Size and Fit.

Module 5: Clothes for Special Needs

Rugs and carpets for yoga and physical fitness, Sports Clothes-Work Clothes-Clothes for People with Disabilities; Maternity Clothes

Module 6: Dietary management for Health

Dietary guidelines appropriate to health and fitness with special reference to obesity, cardiovascular diseases and diabetic

Module 7: Exercise, Performance and Nutrition

Energy expenditure during physical activity-carbohydrate and performance-fat metabolism and performance-protein requirement for physical activity-Vitamins, minerals, fluid and electrolyte loss and replacement

Module 8: Weight management and Fitness

Weight imbalance-underweight-overweight and obesity

Related experiences:

- Sketch simply 6 dresses for some sports event
- Sketch simply 6 few dresses for special conditions-pregnancy/old age/handicapped(mention the purpose of each dress
- Calculate BMI for 10 persons doing some sport or exercise events
- Plan a week menu for an obese person/under weight( calculate the energy)

References

- Anita Webb-Lupo and Rosalyn M. Lester, Clothing Decisions, Macmillon, USA, 1987


• Isabel B. Wingate, Textile Fabric and Their Selection, 5th edition, 1964

• Jeffreys, Julius (1858), The British Army In India: Its Preservation By An Appropriate Clothing, Housing, Locating, Recreative Employment, And Hopeful Encouragement Of The Troops, London: Longman, Brown, Green, Longmans & Roberts, retrieved 8 September 2010


CRAFT DOCUMENTATION & PORT FOLIO- PRACTICAL

Course Code: HSCF4EP05

Teaching hours: 6hrs/week

Credit: 3

All students shall do a study for 2 weeks during 4th semester (preferably during the end of third semester vacation or on any convenient time). The students can take up costumes of a region/country/ caste/ in groups of minimum two. The groups are required to study and document the traditional craft/costume reflecting the culture of that region/country/caste. Each group has to derive, design and construct a collection of minimum 2 garments inspired from the craft in contemporary styling. The documentary and
the collection of garments have to be presented before an internal jury during the 4th semester.

It is not necessary for the student to visit the particular country/state or place. She can study by using distance learning techniques/methods/internet/facebook/ e-learning etc. The students can use secondary sources for learning.(The students can select according to their convenience )

Objectives

- To develop creative designing sensibilities among students for developing ensembles through thematic presentations and interpretations.
- To introduce the students as fashion designers.
- To develop creative entrepreneurs
- Each student will conceptualize and develop a collection of at least five ensembles which demonstrate the student creativity and understanding of the market.
- The collection will be displayed as a fashion show/drape on croqui or mannequins.
- To develop interest in photography by taking photo and documenting

Craft Documentation

For craft documentation there is no external evaluation. The break up for internal evaluation of craft documentation is as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>2</td>
</tr>
<tr>
<td>Garment Construction</td>
<td>2</td>
</tr>
<tr>
<td>Record Books/Videos</td>
<td>3</td>
</tr>
<tr>
<td>Depth of Research</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

CRAFT DOCUMENTATION- 2 weeks during end of 3rd semester break or during their allotted practical hours. The students are taking up in groups of minimum two to a specific region/country/caste/religion and are required to study and document the traditional crafts/costumes reflects the culture of that region/country. This programme enables the students to get a good understanding of the cultural heritage and history of costumes and lifestyle of the people of that region. This program also helps the students to absorb traditional value in clothing which can be a basis for their costume manufacture.
The students are required to study:

1. The history of crafts in the state/country/region/caste/religion.
2. People and life style (customs, beliefs, architecture).
3. Information about the crafts and costumes.
5. Derive a collection of minimum 2 garments inspired from the craft in contemporary styling.
6. Contents of the introductory classes for the programme:
   - Introduction to crafts.
   - Information sourcing on a craft/costume.
   - How to document a craft and why?
   - Contents of craft document.
   - How to plan layouts and the techniques.(1 to 5)
   - A photography module ñ1 week.
   - Outdoor study on crafts/costumes.
   - How to frame photographs/illustration.
   - Prepare questionnaire for survey/ information collection.

Submit a record based on the theme and interpretation of the collection at the time of evaluation.

**PORTFOLIO MAKING [P]**

**Objectives:-**

The students document all their presentable work done in textiles and Fashion through all semesters and those that portray the studentís areas of interest. The portfolio can be an effective means of communicating the capacities and capabilities of the students to anyone who seeks their skills and talents.

**Portfolio Making****

The students have to document all their best presentable work done through all the semesters in the field of fashion and those that portray the studentís area of interest. The portfolio can be an effective means of communicating the capacities and capabilities of the students to anyone who seeks their skills and talent. Their presentation will be evaluated at the end of the IV semester by an external examiner.

**Presentation & Evaluation**

- Students should use computer aided backdrops and various innovative layouts.
- Appropriate selection of designer display folders & different design options are possible for showcasing their creative works.

Submit the portfolio as a record in the time of external evaluation.
Portfolio Making

The break up for internal evaluation of portfolio making is as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weights</th>
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</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>1</td>
</tr>
<tr>
<td>Punctuality</td>
<td>1</td>
</tr>
<tr>
<td>Design Assignment</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
</tr>
</tbody>
</table>

The evaluation of all components is to be published and is to be acknowledged by the candidate. (Craft Documentation & Portfolio will be evaluated by external examiner) (Both record of practical work(Portfolio) and report will be valued by external examiners) There is no external valuation for Stitched garments

ADVERTISING AND PUBLIC RELATIONS

Course Code: HSC4ET06

Teaching hours: 5hrs/week

Credit: 4

Objectives

Course Outline

Module 1: Advertising


Module 2: Public Relations & Production of Publication

History and growth of Public relations, Principles of Public Relations Definitions, importance, four basic elements, misconceptions, Public opinion, Public relation as management function, scope of Public relations Preparing reference material for publication, editing-fundamentals and techniques, production of cover, cover design and illustration, typography and press, proof reading and block making, paper.

Module 3: Principles Objectives of Public Relations

Advertising, media of public relations advertising: news papers, magazines. Radio and television, direct advertising, outdoor and transport advertising, motion pictures and special advertising, advertising themes.
Module 4: Employee Relations

Personal Policy-Basis of good employee relations, communicating policies and practices to employees: Responsibility for employee relations, importance and deficiencies of employee communications, Planning employee communications, communication from management to employees and employees to management. Role of incentives and increments in employee relations.

Module 5: Community Relations

Benefits, Community relations survey, media of communication with community. Advertising, publicity, open house, plant tours, public speaking, exhibits, displays, annual reports.

Related experience

* Plan & prepare different advertising media and see the effect
* Prepare public speech
* Conduct exhibitions and record

Reference

- Applied public relation and communication-K.R. Balan
- Public relations-Principles, cases and problems-Fraizer Moore and Frank B Kalupa

Journals

1. Broadcast/Video Studiesó 1 journal
   a. Journal of Broadcasting & Electronic Media

2. Communication Technology and New Mediaó 7 journals
   a. Cyberpsychology & Behavior
   f. Technical Communication
   g. Telecommunication Policy

3. Critical and Cultural Studiesó 4 journals
   a. Critical Studies in Media Communication

4. Gender, Race, Sexuality and Ethnicity in Communicationó 0 journals

5. Health Communicationó 2 journals
   a. Health Communication
b. Journal of Health Communication

6. International and Intercultural Communicationó 3 journals
   a. Comunicar (Spain, in Spanish)
   c. Multilinguaó Journal of Cross Cultural and Intralanguage& Communication

7. Interpersonal Communicationó 2 journals
   a. International Journal of Conflict Management (also organizational communication)
   b. Journal of Social and Personal Relationships

8. Language and Social Interactionó 6 journals
   a. Discourse & Society
   b. Discourse Studies
   c. Research on Language and Social Interactiond. Language & Communication
   e. Narrative Inquiry
   f. Text & Talk

9. Journalism Studiesó 3 journals
   a. International Journal of Press-Politics
   b. Javnost-The Public
   c. Journalism & Mass Communication Quarterly (also Mass Communication)

10. Mass Communicationó 6 journals
    a. Asian Journal of Communication
    b. Journal of Media Economics
    c. Mass Communication & Society

11. Organizational Communication/Group Communicationó 3 journals
    a. Journal of Applied Communication Research
    b. Journal of Business and Technical Communication
    c. Management Communication Quarterly

12. Public Relations/Advertisingó 5 journals
a. International Journal of Advertising
b. Journal of Advertising
c. Journal of Advertising Research
d. Journal of Public Relations Research
e. Public Relations Review

13. Social Influence/Political Communication: 5 journals
   b. Political Communication
   c. Science Communication

MANAGEMENT OF FRONT OFFICE AND ACCOMMODATION

Course Code: HSCF4ET07

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To gain Knowledge on the role of front office and housekeeping departments in the hotels.
- To acquire skills in reservation and handling of guests.

Module 1: Introduction to Hospitality Industry

Classification of foods service establishment: Objectives of hospitality industry, hospitality industry and tourism, importance of tourism evolution of lodging establishment (OMIT) hotels and their classification.

Module 2: Front Office Department

Objectives, front office organization, Staffing, functions of front office, registration, qualities of front office staff. Etiquette of staff(any one)

Module 3: Basic Reservation System

Procedure, computerized reservation forecasting. Handling, excess reservation, cancellation, penalty, arrival and departure for individual and groups, C form. Check in and check-out, objectives importance of an efficient front desk, check in procedures, and activities (repetition), check out procedures and activities.
Module 4: Rules and Rates
Objectives, room types and rates, rate categories, rate factor, room rate code, group rate classification, special rates, and miscellaneous rate policies.

Module 5: Guest Relation Services
Objectives, importance of guest relationship personal appearance communication dealing with complaints, preventing complaints, guest and their needs, arranging transportation, foreign currency exchange and safe deposit boxes.

Module 6: Records for Control
Importance of reports, the front desk log, maintaining room status maintaining account balance, monitoring availability, electronic front office, electronic point sale system. Check out, audit, rooms status indicator, mail and key racks, wake up devices, accounting equipment.

Module 7: House Keeping Departments
Staffing, training, functions of housekeeping departments, job description, and job specification. Relationship of house keeping with guests and with other departments.

Module 8: Linen Room, Linen, Uniform, Bedding, Beds
Layout, plan activities of the linen room, different jobs that can be given as contract, linen storage and control, table linen, bed linen, bedding, bed making and turning down, laundry method, uniform, fabric stain removal.

Module 9: Cleaning Guest Rooms, Public Area
Rules procedures and principles, daily periodic and spring cleaning, list of standard room supplies (bathroom included)

Module 10: Interior Environment
Design and style, safety measures, colour, lighting heating, ventilation flower arrangements, safety and security, fire presentations and control, accidents prevention, security measures, first aid.

Related experience
- Visit front office and housekeeping departments of different hotels.
- Preservation procedures and guest handling role play

References
• James, Baradi A Hotel front Office management, Van NostrandReihold, New York, (1996)


• Hotel Operations Management; Jack D. Ninemeier, Amazon

• Management of Food And Beverage Operations; Jack D. Ninemeier, Amazon

• Restaurant Operations Management: Principles and Practices; Jack D. Ninemeier, Amazon

• Supervision in the Hospitality Industry; Jack D. Ninemeier, Amazon

• The Lodging and Food Service Industry; Jack D. Ninemeier,Amazon

**Journals**

• International Journal of Contemporary Hospitality ManagementISSN: 0959-6119

**BUSINESS ORGANIZATION & ACCOUNTANCY**

**Course Code:** HSCF4ET08

**Teaching hours:** 5hrs/week

**Credit:** 4

**Objectives**

- To understand the aspects and types of business organizations.

- To gain knowledge of the various sources of finance.

**Course Outline**

**Module 1: Scope of Business & Forms of Business Organisation**

Objects of modern business- essential of successful business. Sole proprietorship, partnership, joint stock company. Type important documents of companies. State enterprises co-operative societies.
Module 2: Source of Finance & Cost and Cost Control


Module 3: Role of Banks

Role of banks and other financial institutions Project appraisal.

Module 4: Principles of Accounting


Module 5: Marketing & Sales Promotion

Channels of distribution- importance of middleman in trade. Wholesale and retail trade with reference - Salesmanship and advertisement.

Module 6: SMALL SCALE INDUSTRY

Need for management, problems of small enterprises Government policy towards small business, development schemes registration of industrial estates- objectives- advantages

Reference:

- Dhushan Business organization, Sultan Chand & Sons, New Delhi, (2005)

Journals

- Administrative Science Quarterly
- Journal of Business
- Journal of Economics, business, & accountancy; ISSN 2087-3735
- Journal of International Business Studies
- Management Science
• Organization Science
• Organizational Behavior & Human Decision Processes

INDIAN EMBELLISHMENT TECHNIQUES & QUALITY CONTROL
IN GARMENT INDUSTRIES

Course Code:  HSCF4ET09
Teaching hours: 5hrs/week
Credit: 4

Objectives

Objectives

• To study the different traditional textiles and their origin.
• To impart knowledge on various Indian fabric embellishment techniques
• To develop an understanding of the definition latest technological developments in the apparel industry.
• Understanding the quality control parameters of apparel industry

Course Outline

Module 1
History of Indian textile production; Techniques of textile decoration-Brief study on traditional Woven fabrics, Dyed fabrics, Printed fabrics, Painted fabrics and Embroidered fabrics. Traditional Indian embroidery ñ origin application & colors-Kantha, Chikan, Kutch & mirror work, Kasuti, Zardosi and Bead work

Module 2

Module 3:  Quality
Introduction to quality -Key aspects of quality system, objectives of a quality system; Total Quality Management, Role of ISO in quality assurance.Quality control:- principles of quality control -SQC, Quality department, Quality audit, quality monitor, Quality circles, Quality control for exports, operation of quality control systems, design, Standard, levels of standard. Functions of Quality Assurance department, quality check and final inspection, methods of checking, and consignment at final inspection and measurement tolerances in garments.
Module 4

Introduction to Apparel testing and quality control:- Apparel testing equipments- GSM, Tensile tester, Bursting strength tester, Tear strength tester, fabric stiffness tester, crock meter, colour matching cabinet. Quality parameters ñ (Defects found in yarns, greige fabric, dyeing, printing, bleaching, shearing, mercerization) Components of quality parameters- (Placket, Collar, pocket, vent, Label attachment) Terminologies- C.M.T, Defect, Minor Defect, Major Defect, Critical Defect, AQL, 4points system, DIA, G.S.M, Shrinkage, Breaking strength, Color bleeding, Puckering, Pilling, Pilling resistance, Grain seam, batching up, Color smear, patches

References

- Quality assurance for Textile and Apparel, Sara J.Kadol, Fairchild publication.
- Introduction to clothing Manufacture, Gerry Cooklin. Blackwell science.
- Quality control in apparel manufacturing, Dr.Bharadwaj.
- Jurani quality control hand book.
- Indian Tie-Dyed Fabrics, Volume IV of Historic Textiles Of India. Merchant: Celunion Shop
- Indian Tie-Dyed Fabrics., Volume IV of Historic Textiles Of India,. Merchant: Celunion Shop
- Traditional Indian Textiles., John Gillow/Nocholas Barnard, Thames & Hudson.

QUANTITY FOOD PREPARATION AND FOOD SERVICE TECHNIQUES

Course Code: HSCF4ET10

Teaching hours:5hrs/week

Credit:4

Objectives

- To understand the objectives of different methods of cooking
- To gain knowledge in menu planning,
- preparation of recipes in large scale
- Methods and techniques in serving
- Calculating food costing.
Course Outline

Module 1: Food Service Theory
Scope of hospitality in Industry, Different categoris of hotels, and their objectives.

Module 2: Menu Planning- the Primary Control of Food Service
Menu pattern, Planning, presentation prizing and evaluation.

Module 3: Purchasing
Procurement, product selection, specification methods of purchasing and purchasing process.

Module 4: Storage
Receiving, storage and inventory control.

Module 5: Production Planning and Standardisation of Recipes
Standardization and portion control production forecasting and production scheduling

Module 6: Quantity Food Production and Quality Control
Objectives of food production, Methods of production, product standards and production control—HCCP

Module 7 Distribution and Service of Food
Types of cuisine and food service, categories of service service management and service equipment.

Module 8: Fuel
Equipment and fuel economy, Substitutes for meeting fuel shortage.

Module 9: Beverages
Alcoholic and Nonalcoholic beverages, preparation service and control measures.

References


NUTRITION MANAGEMENT IN SPECIAL CONDITIONS & NUTRACEUTICALS

Course Code: HSCF4ET11
Teaching hours:5hrs/week
Credit:4

Objectives

• To provide in-depth knowledge of the physiological and metabolic role of various nutrients and their interactions in human nutrition.

• To enable the students to understand the basis of human nutritional requirements and recommendations through life cycle.

• To understand the role of nutraceuticals in health and to make them familiar with their functions,

Course Outline

Module 1: Metabolic Role of Energy, Carbohydrates and Protein

BMR, thermiceffect, RMR, Physiological fuel value, Regulation of Energy metabolism, Digestion and transport of CHOs, Glycemic index of foods, dietary fibre, fructooligosaccharides, resistant starch, Sweetners-nutritive and non nutritive, metabolism of proteins, Proteinquality, methods of evaluating protein quality, Protein and amino acid requirements.

Module 2: Metabolic Role

Metabolic role of Lipds, Water, Viamins and Minerals; Digestion, Absorption and transportation (common); Functions of EFA, Role of n-3, n-6 fatty acids in health and disease, Transfatty acids. Regulation of intra and extra cellular volume, Osmolality, water balance and regulation. Interactions of minerals with other nutrients, Importance of macrominerals and microminerals. Importance of fat soluble and water soluble vitamins.

Module 3: Nutrition Management in Special Conditions

Space travel, sports, high altitudes, low temperatures and submarines.
Module 4: Nutraceuticals

Types and significance of nutraceuticals, Importance of nutraceuticals in health management, Dietary supplements, Functional foods, Pharmacological aspects of nutraceuticals, Current and future developments.

Module 4: Probiotics and Prebiotics

Definition, theories, functions, Sources and health benefits.

Related Experience

* A visit to a nutraceutical company to study the advance researches.
* A short study on the micronutrient deficiency in your local area.
* A survey on availability of Probiotic and prebiotic sources.

References

1. World reviews of Nutrition and Dietetics.
2. Indian Council of Medical Research. Recommended Dietary intakes for Indians - Latest recommendations
6. Halsted CH. Dietary supplements and functional foods: 2 sides of a
8. Ross S. Functional foods: the Food and Drug Administration
• To provide practical field level experience in institutional food administration
• To impart necessary expertise to function as food service manager
• To equip individual to start their own food service Module leading to entrepreneurship

Course Outline

Module 1: Introduction to Food Service Systems
Characteristics of the various types of food service Modules-theories of management strategies in planning

Module 2: Management of Finance, Materials, Space and Equipment
Determining finance needed to establish or start a Module, -management of resources finance needed to establish or run a Module-sources of financeó planning adequate cash flow Menu planning-planning the materials needed-storage; Planning layout-determining equipment-selection and placement-layout analysis-kitchen lay out

Module 3: Management of Staff, Time and Energy
Recruitment-induction-training-motivation-performance appraisal; Measures for time and energy utilization and conservation

Module 4: Cost Accounting/Analysis, Marketing
Food cost analysis-record to be maintained-report and trend analysis; Marketing strategies-sales analysis-market promotion; Computer aided record maintenance and management

Module 5: Quantity Food Production, Distribution and Service of Food
Objectives of food production, methods of food production; Types of cuisines and food service, categories of service, service management and service equipment.

Related experience
• Market survey and analysis of processed and finished products
• Evaluation of food service Module
• Market survey of food service equipment
• Lay out analysis of kitchens
• Planning menus for quantity-out door-packed meals-restaurants
- Standardize recipes for 100,250,500
- Cost analysis of menus
- Analyze food safety and hygiene

**Reference**

- Sethi Mohini (1993) Catering management an integrated approach 2nd edn Wiley eastern
- Kotas Richard & Jayawardene (1994) Profitable food and beverage management Hodder & Stoughton publication
- Knootz, M. (1980) Food service system administration, Macmillan publishing company,
- Khari W. L. (1977) Introduction to Modern food Beverage service (1979) Advance Modern food and beverages service, prentice hall
- Avery A. C. (1980) Modern guide to food service equipments, Boston, CBI publishing company

**Journals**

- Journal of Food Protection
- *International Journal of Food Science & Technology* A leading international forum for high quality research with a practical application; ISSN: 1365-2621
MODEL QUESTIONS

HSCF1CT01

ENVIRONMENT AND HUMAN RESOURCE MANAGEMENT

Time : 3 hours

Weightage : 30

Section A
(Answer any five questions. Each question carries a weightage of 1
Answer should not exceed one page)

1. Define biomass?
2. Comment on Pollution control board?
3. Explain Cost benefit analysis?
4. Write notes on solar water heater?
5. what is Vermicomposting?
6. Explain Small Scale industry?
7. Write on Budgeting?
8. Explain Leadership quality?

(5◊1=5)

Section B
(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)

9. Discuss on the waste recycling methods?
10. Explain the advantages of solar energy?
11. Describe the role of credit in finance?
12. Explain on the tools of decision making?
13. Explain the methods of waste disposal?
14. Rain water harvesting techniques-Explain?
15. Explain the role of agencies to control the pollution?
16. Elaborate on the effects of environment pollution on community?

(5◊2=10)

Section C
(Answer any 3 questions. Each carries a weightage of 5 answer should not exceed four pages)

17. Describe on the factors affecting changes in environment?
18. Systems approach-Advantages and limitations?
19. Environmental impact on the extensive use of non renewable energy resource?
20. Saving and saving institutions-significance and types?
21. Enumerate on the tools and techniques used for evaluation?

(3◊5)
HSCF1CT02

THERAPEUTIC DIET MANAGEMENT

Time: 3Hrs  
Weightage: 30

Session A

Answer any five, (Answers should not exceed one page)

1. Write a short note on Principles of therapeutic diet?
2. Explain the nutritional care for weight management?
3. Distinguish between Anorexia nervosa and Bulimia?
4. Give a short note on principles of diet in surgical conditions?
5. Define the term Glucose Monitoring?
6. What are special diabetic foods?
7. Write a short on Lipoproteins?
8. Explain the dietary management on Nephrolithiasis?

(5x1=5)

Session B

Answer any five, (Answers should not exceed two pages)

9. Distinguish between the symptoms of Glomerulonephritis and Nephrolithiasis?
10. Briefly explain about the dietary management of Cancer and HIV?
11. Write a short note on sodium and potassium exchange list in Renal diseases?
12. Explain Liver Function tests?
13. Define Allergy. Give a short note on food selection in allergic conditions?
14. What are the symptoms in Gastric and Duodenal ulcers?
15. Explain the terms a) Ulcerative colitis  b) IBS  c) Haemorrhoids?
16. What are the etiological factors contributing to Obesity?  (5x2=10)

Session C

Answer any Three, (Answers should not exceed four pages)

17. Explain about the Prevalence, symptoms and nutritional management of Atherosclerosis?
18. Write a short note on dietary management on Renal failure and Uraemia?

19. Distinguish between Hepatitis and Cirrhosis of Liver with etiology, symptoms and nutritional management?

20. Briefly explain about Diabetes Mellitus on
   a) Classification  
   b) Symptoms  
   c) Diagnosis  
   d) Nutrition therapy

21. Give a brief idea about different intestinal diseases. Explain their etiology, symptoms and diagnostic tests?

(3x5=15)

HSCF1CT03
FASHION MARKETING AND MERCHANDISING

Time: 3hrs  
Maxweightage: 30

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. Classify fibres?
2. What is Fashion forecasting?
3. Explain Fashion cycle?
4. What is German Ban?
5. Explain Brand and brand image?
6. Classify Advertising?
7. Write the Importance of organic fibres?
8. What are the Eco friendly textiles?  

(5 x 1 = 5)

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. Write about the channels of distribution
10. Explain about the process of product development.
11. Importance of advertisement in the promotion of a product.
12. Importance and objectives of marketing
13. Principles and methods of pricing
14. Types of visual merchandising
15. What are eco textiles? Classifications
16. Functions of marketing

Part C

Essays (Write within 4 pages). Answer any 3. Weightage 5 for each

17. Explain about marketing management and associated risks.
18. Explain the process of product development.
19. Concepts, objectives and importance of fashion marketing.
20. Advertisements. Advantages and disadvantages
21. Explain about pricing policies and strategies.

HSCF1CT04
EARLY CHILDHOOD CARE & EDUCATION

Time: 3 hr Max Weightage: 30

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. Write Notes on ECE?
2. Explain Play centers?
3. Briefly explain Needs and objectives of educational agencies?
4. Write Classifications of challenged children?
5. Explain Risk factors of developmental delay?
6. Expand TDSC?
7. Explain ICDS?
8. Write about any two types of teaching aids? (5◊1= 5)

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. Write about the educational contribution of Gandhi?
10. Write about the importance of home-school relationship in child development?
11. Role of parents in the character molding?

12. Explain about the activities of educational agencies?

13. Write the importance of early childhood education?

14. Define, & classify Challenged children?

15. “Home is the suitable background for development”. Explain?

16. Tools used for the developmental assessment of infants. \[5 \times 2 = 10\]

**Part C**

*Essays (Write within 4 pages). Answer any 3. Weightage 5 for each*

17. Write the Needs and objectives of educational agencies. Explain the contributions of ICCW, IAPE, NCERT and ICDS

18. Gifted-Characteristics, Identification and intervention programme?

19. Explain about preschool organization?

20. Write about the importance of teaching aids in early childhood education?

21. Explain Principles need and scope of early childhood education. Write about the contribution of Froebel? \[3 \times 5 = 15\]

**HSCF2CT06**

*FASHION ILLUSTRATION AND DESIGN*

**Time: 3hrs**

**Maxweightage: 30**

**Part A**

*Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.*

1. Write the Elements of fashion designing?

2. Explain thematic designing?

3. Who are Models? Types

4. Write Notes on any 2 types of surface ornamentation?

5. Explain Materials and methods for sketching?

6. Describe Color harmony?

7. Write about the sources of fashion figures?

8. What is Texture? \[5 \times 1 = 5\]
Part B
Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. Write about the importance of layouts?
10. Write on the principles of fashion designing?
11. Principles of modeling?
12. Methods of thematic designs?
13. Explain Garment analysis?
14. Draw and explain Types of pockets?
15. Sketch collars suitable for baby frocks?
16. Write the Importance of color in designing? \(5 \times 2 = 10\)

Part C
Essays (Write within 4 pages). Answer any 3. Weightage 5 for each

17. Explain factors influencing costume designing?
18. Design a traditional party wear for an adolescent girl?
19. Write about the inspirational sources of costume designing?
20. Details of various types of trims?
21. Types of collars? \(3 \times 5 = 15\)

HSCF2CT07
ERGONOMICS AND INTERIOR SPACE DESIGN
Time : 3 hours

Section A
(Answer any five questions. Each question carries a weightage of 1. Answer should not exceed one page)

1. Define Ergonomics?
2. Explain Anthropometry?
3. What is Biomechanics?
4. Comment on Motion economy?
5. What is Modular Kitchen?
6. Explain Wardrobe design?
7. What is Acoustics?
8. Explain Orientation? \(5 \times 1 = 5\)
Section B

(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)

9. Explain the storage requirements for kitchen?
10. Brief on the importance of lighting in commercial interiors?
11. Design a dressing table for a college girl?
12. Explain the importance of body posture for different activities?
13. How will you acquire privacy within residential areas?
14. Explain the factors responsible for thermal regulation of environment?
15. Comment on Anthropometry-role in furniture design?
16. What are the false ceiling materials commonly used?

(5◊2=10)

Section C

(Answer any 3 questions. Each carries a weightage of 5 answer should not exceed four pages)

17. What are the Factors to be considered while selecting residential furniture?
18. Explain Indoor gardens- advantages and care?
19. Explain the materials used for commercial interior space design?
20. Describe the principles of motion economy?
21. Enumerate on the effect of noise on productivity?

(3◊5=15)

HSCF2CT08

FOOD SAFETY, QUALITY CONTROL AND PROCESSING TECHNOLOGY

Time:3Hrs Weightage:30

Session A

Answer any five, (Answers should not exceed one page)

1. Write a short note on HACCP?
2. What are the different types of spoilage in canned foods?
3. What are the different methods of preservation?
4. Define Food additives?
5. Distinguish between Antioxidants and Anticaking agents?
6. What are the applications of ionizing radiations in food processing?
7. Give a short note on Nutraceuticals?

8. Explain the term Fat replacers?  

Session B
Answer any five, (Answers should not exceed two pages)

9. Briefly explain methods of isolation and detection of microbes?

10. How do the chemical and biochemical reactions affect the food quality and safety?

11. Explain the role of microbes in fermented foods?

12. Write a short note on Food borne diseases?

13. Briefly explain the principles in thermal and refrigeration processing?

14. What are the differences between sugar substitutes, stabilizers and flavour enhancers?

15. Write a short note on Functional foods?

16. What are the factors affecting the growth of microbes in foods?  

Session C
Answer any Three, (Answers should not exceed four pages)

17. Explain about the spoilage in cereals and cereal products and fruits and vegetables?

18. Write a short note on food processing techniques in dehydration and freezing?

19. Briefly explain the different methods of preservation?

20. Explain the terms a) Aroma substances b) Probiotics c) Chelating Agents. Give the applications in food processing?

21. Briefly explain about the advanced methods in food processing?

HSCF2CT09  
RESEARCH METHODS AND STATISTICS

Maximum : 30 Weightage  
Time: 3 hrs

PART ñ A
1 Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define intervening variables
2. What are partition values? Give the different partition values
3. Define a standard normal distribution
4. What is standard error?
5. What is a scatter diagram?
6. Write on the types of questionnaires?
7. What is sampling error?
8. Pictograph

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between absolute and relative measures of dispersion
10. Briefly explain the types of research
11. Differentiate between interview and observation
12. Explain the advantages and limitations of questionnaires as a research tool.
13. Calculate the correlation coefficient from the following data sheet:
   \[
   \begin{align*}
   N \, X &= 444 & \quad N \, Y &= 443 \\
   N \, X^2 &= 19806 & \quad N \, Y^2 &= 20065 \\
   N \, XY &= 19711 & \quad n &= 10
   \end{align*}
   \]
14. Define variable and discuss the types of variables
15. What are the properties of normal distribution?
16. The following data was obtained in an investigation about the effect of vaccination for hepatitis. Examine whether vaccination is effective in preventing hepatitis.

<table>
<thead>
<tr>
<th>Vaccinated</th>
<th>Not Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attacked by hepatitis</td>
<td>3</td>
</tr>
<tr>
<td>Not attacked by hepatitis</td>
<td>8</td>
</tr>
</tbody>
</table>

PART ñC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Interview. Construct an interview schedule on any relevant topic based on your interest.
18. The BMI of people follows a normal distribution with mean 20 and standard deviation

3. Find probability that a person selected at random is having BMI
d) Between 16 and 23  b) Above 25  c) Below 20

19. Define sample. Briefly explain different types of sampling.

20. Discuss briefly on any two tools used in research.

21. Compare the merits and demerits of mean, median and mode.

22. The following are the marks of 10 students before and after training. Test whether the training is effective.

Mark before training: 91 95 81 83 76 88 89 97 88 92

Mark after training: 89 101 85 88 81 92 92 99 97 87

HSCF3CT11
PROGRAMMES FOR CHILDREN AND FAMILY & GUIDANCE AND COUNSELING

Time: 3hrs  Maxweightage: 30

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. Write the Principles of counseling?

2. Explain Qualities needed for a counselor?

3. Write the Objectives of family counseling?

4. What are the alternative forms of counseling therapy?

5. Explain Importance of communication skills in counseling?

6. What is counseling therapy?

7. Explain Counseling for children with mental retardation?

8. Explain Group methods for counseling?

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. Why counseling Important at schools?

10. Explain Family counseling- process and importance?

11. Write the Importance of vocational counseling?
12. Write Notes on types of programmes for children and family?

13. What are the Objectives of counseling therapy?

14. Geriatric counseling

15. Importance of observation skill in counseling

16. Counseling at different stages.

Part C

Essays (Write within 4 pages). Answer any 3. Weightage 5 for each

17. Role of culture in counseling programe?

18. Current issues and trends in guidance and counseling?

19. Guidance and counseling of children with special needs?

20. Explain the needs, principles and objectives of counseling therapy?

21. Importance of group techniques in guidance and counseling?

HSCF3CT12

APPAREL PRODUCTION TECHNIQUES AND QUALITY CONTROL

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. What is Grading?

2. Explain the Types of fusing?

3. Explain the methods in Draping of asymmetrical design?

4. write notes on Knitting industry?

5. Explain Steps in pattern making?

6. Describe Types of cutting machine?

7. What are the functions of production department in a garment industry?

8. What is Stack method?

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.
9. Write the Structure of a garment industry?
10. Write notes on outline of production techniques?
11. Write note on knitting industry?
12. Explain Principles of management in a garment industry?
13. Explain the operation of a fusing machine?
14. What are the use and importance of marker ?
15. Write about fabric inspection?
16. Write about pressing equipments? (5◊2=10)

Part C

Essays (Write within 3 pages). Answer any 3. Weightage 5 for each
17. Explain about various garment industries.
18. What are the procedures for the grading of blocks for various sizes?
19. Explain the structure, organization and functions of garment industries.
20. Pattern making- Methods and importance
21. Drafting a salwar for an adolescent girl (3◊5=15)

HSCF3CT13
HOUSING AND HOSPITALITY MANAGEMENT

Time : 3 hours Weightage30

Section A
(Answer any five questions. Each question carries a weightage of 1. Answer should not exceed one page)

1. Define Floor space index?
2. Explain Twin houses?
3. What are Hollow blocks?
4. What is Zoning?
5. Comment on Vastusasthra?
6. Describe Sky scrapers?
7. What is Straw panel?
8. Explain Dome? (5◊1=5)
Section B
(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)

9. Discuss on the waste disposal methods
10. Discuss housekeeping in relation to commercial and welfare section
11. Explain the consideration of housing needs for aged
12. Explain the role of house financing institution
13. What are the symbols and abbreviations used in house plan?
14. Explain the soil conditions suitable for building houses
15. Explain the modern technology in housing
16. Elaborate on the changes in housing needs

(5x2 =10)

Section C
(Answer any 3 questions. Each carries a weightage of 5 answers should not exceed four pages)

17. Enumerate on gothic architecture
18. Explain on the building regulations and building codes
19. Describe Zoning objectives and advantages
20. Explain the factors affecting housing.
21. Explain the factors to be considered while selecting

(3x5 =15)

HSCF3CT14
SCIENTIFIC WRITING AND PROJECT MANAGEMENT

Maximum: 30 Weightage

PART A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

67. Objectivity in research.
68. Budgeting a project.
69. Executive summary.
70. Importance of bibliography.
71. Pilot study.
72. Importance of setting a time frame.
73. Presentation of a project proposal.
74. Foot notes.

(5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

75. Explain the parts of a table.
76. What are the objectives of classification of data.
77. What are the important points to be mentioned while writing the introduction of a dissertation?
78. Explain the importance of the graphical presentation of data. Briefly mention its limitations.
79. How do you write a review article?
80. What is the significance of reviewing the literature?
81. Briefly explain the principles of report writing.
82. What are the general rules of tabulation?

(5x2=10 weightage)

PART C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

83. Explain the following, citing their advantages, limitations and areas of application
   (d) Bar diagram       (b) Pie graph
84. Choose a research topic related to your field of study and write a research proposal for securing a university grant.
85. Briefly explain the parts of a dissertation.
86. What are the salient points to be borne in mind while writing research articles for journals.
87. What are the points to be borne in mind while explaining the results of a study and discussing it.
88. Briefly explain how to formulate outlines. Add a note on the kinds of outlines while reporting a research finding.

(3x5=15 weightage)

HSCF4ET01

SUSTAINABLE DEVELOPMENT & ORGANIZATION

Time:3hrs  Max weightage:30

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. What is credibility?
2. Explain Fundamental natural resources?
3. Write about any one environmentally sound technology used in your surrounding?
4. Explain Meaning of sustainable development?
5. Write the Importance of organizations n the development?
6. What is human resource accountability?
7. Explain the Staff responsibilities?
8. Explain role of Co operative organization in sustainable development?  

(5+1=5)
Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. What are the Fundamental principles of system management?
10. Explain Types of organizations in development?
11. Explain Structure of macro level intervention?
12. Write about people participation in sustainable development?
13. Explain Role of governmental organization in sustainable development?
14. Write the Importance of leadership?
15. Explain Techniques in the improvement of working condition?
16. Write the Inter-linkages of peopleís participation for building knowledge?  (5◊2= 10)

Part C

Essays (Write within 3 pages). Answer any 3. Weightage 5 for each

17. Explain methods to improving resources?
18. Explain about office management?
19. Write about meaning, concepts and implications of sustainable development?
20. Explain about natural resources?
21. Explain Theories of development?

(3◊5= 15)

HSCF4ET02

PRODUCT DEVELOPMENT, MARKETING AND ENTREPRENEURSHIP DEVELOPMENT

Time:3Hrs Weightage:30

Session A

Answer any five  (Answers should not exceed one page)

1. Define Product Design. What are the significances of product design?
2. Write a short note on Product Development Process?
3. Distinguish between market estimates and market segmentation.

4. What are the principles of Quality Control?

5. Briefly explain ISO certifications or standards.

6. Define SWOT analysis.

7. Classify the different types of packaging.

8. What is Project finance? \(\text{(5x1=5)}\)

**Session B**

Answer any five \((\text{Answers should not exceed two pages})\)

9. Explain the factors in shaping new product development.

10. Briefly explain the different types of design organization.

11. Write a short note on Product life cycle?


13. What are the steps in launching and organizing an enterprise?


15. Differentiate between the packaging systems in food and other consumer products.

16. Define Industrial sickness. What are the remedies taken to solve it? \(\text{(5x2=10)}\)

**Session C**

Answer any three \((\text{Answers should not exceed four pages})\)

17. What is customer requirement analysis? Explain.

18. Explain the terms a) Patents b) Standards c) Codes in Product development.


20. Define TQM. Give the model of TQM. Write a short note on ISO certifications.


\(\text{(3x5=15)}\)
Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.
1. What do you mean by Women rights?
2. Define mental health?
3. write notes on Leisure time activities for elderly?
4. Explain Institutional services for old age?
5. Write notes on Fears and phobias among middle childhood?
6. What is Truancy?
7. Write Objectives of mental health programme?
8. Write any three services and programmes for aged?

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.
9. Write Importance of mental health among adolescents?
10. Write about different programmes comes under commModuley mental health?
11. What are the problems of adolescents related to their social role?
12. Write Importance of teachers and administrators in mental health aspects of children?
13. Learning disabilities among middle childhood. Discuss?
14. Comment on Child rights?
15. Write Importance of counseling in school mental health programmes?
16. What are the Needs and objectives of commModuley mental health programmes?
Part C

Essays (Write within 3 pages). Answer any 3. Weightage 5 for each

17. Write on Need, identification and intervention of school mental health programme?

18. Explain about ageing process?

19. Write about the problems of adolescents and solutions?

20. Explain about human rights by quoting some examples?

21. Write Characteristics of mental maturation among infancy?

HSCF4ET04

CLOTHES, FURNISHING AND NUTRITION FOR SPECIAL NEEDS
(SPORTS AND FITNESS)

Time: 3 hours

Weightage 30

Section A
(Answer any five questions. Each question carries a weightage of 1. Answer should not exceed one page)

1. Define health?
2. Comment on comfort?
3. Explain fitness?
4. Write notes on carbohydrate?
5. What is diabetics?
6. Explain the role of protein during physical exercise?
7. Write on minerals?
8. Explain micronnaire fibre?

Section B
(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)

9. Discuss on the electrolyte loss?
10. Explain the advantages of spandex fibres?
11. Describe the role of dress comfort in sports wear?
12. Explain on the importance of diet in sports?
13. Explain the methods to control obesity?
14. What is tactile in sports wear?
15. Explain the role fat in energy giving role?
16. Elaborate on the Size and Fit?
Section C
(Answer any 3 questions. Each carries a weightage of 5 answers should not exceed four pages)

17. Describe on the factors affecting changes in body during exercise?
18. Explain principles of nutrition for health Advantages and limitations?
19. Write the role of clothes on the sports or physical exercise?
20. Explain Dietary guide lines appropriate to health and fitness?
21. Enumerate on the Psychological comfort-and Aesthetic Comfort?  \(3\times 5=15\)

HSCF4ET06
ADVERTISING AND PUBLIC RELATIONS

Time : 3 hours Weightage 30

Section A
(Answer any five questions. Each question carries a weightage of 1 Answer should not exceed one page)

1. Explain Oral communication?
2. What is Open house?
3. Write on Public Opinion?
4. Who is a Consumer?
5. What is advertising?
6. Explain corporate advertisement?
7. Comment on a Brochure?
8. What is a Leaflet? \(5\times 1=5\)

Section B
(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)

9. Describe the importance of advertising?
10. What are the leadership qualities?
11. Explain the various forms of oral communication?

Write notes on basic elements of public relations?
12. Explain the role advertisements in corporate offices?
13. List out the responsibilities of a public relations officer?
14. Explain the role of listening in communication?
15. What is the importance of public relations? \(5\times 2=10\)

Section C
(Answer any 3 questions. Each carries a weightage of 5 answer should not exceed four pages)

16. Explain the medias used for public relations advertising?
17. Explain the factors to be considered while communication?
18. Explain the importance of employee employer relation?
19. Role of public relations personnel in institutions?
20. Explain the procedure in production of publications? (3◊5=15)

HSCF4ET07

MANAGEMENT OF FRONT OFFICE AND ACCOMMODATION

Time: 3 hours

Section A
(Answer any five questions. Each question carries a weightage of 1 Answer should not exceed one page)
1. Explain Staffing?
2. What is Front Office?
3. Comment on OMIT?
4. What is C Form?
5. Write notes on Check in?
6. Explain foreign currency exchange?
7. Explain Electronic point sale system?
8. What is an Audit? (5◊1=5)

Section B
(Answer any 5 questions. Each carries a weightage of 2, answer should not exceed two pages)
9. What are the security measures to be adopted?
10. What are the processes for stain removal?
11. Explain the front desk log?
12. Write notes on laundry methods?
13. Classify food service departments?
14. Explain the importance of tourism in the Indian economy?
15. How will you plan the functions of front office?
16. How can be transport service arranged to guest? (5◊2=10)

Section C
(Answer any 3 questions. Each carries a weightage of 5 answer should not exceed four pages)
17. Explain the functions of housekeeping department?
18. Explain the types of flower arrangements used for different occasions?
19. Explain the rules and procedures for cleaning guest rooms?
20. Describe the objectives and types of ventilation?
21. Explain the guest relation services provided by the institution? (3◊5=15)
HSCF4ET08

BUSINESS ORGANIZATION & ACCOUNTANCY

Time: 3Hrs

Weightage: 30

Section A

Answer any five (Answers should not exceed one page) (5x1=5)

1. Distinguish between Trading Account and Profit & Loss Account.
2. Explain the term Cash book.
3. What are the methods of Controlling Cost?
4. Write a short note on finance sources.
5. What are the objectives of modern business?
6. Discuss the steps involved in Project appraisal for a food processing industry.
7. Give the significance of middlemen in trade.
8. Write a short note on the importance of small scale industries.

Section B

Answer any five, (Answers should not exceed two pages) (5x2=10)

9. Explain the terms a) Joint stock company b) Sole proprietorship, c) Partnership.
10. What are the different kinds of shares and debentures?
11. Briefly explain the principles of Accounting.
12. Give the importance of Cost sheet in business management.
13. What is the role of Co-operative Societies in todayís business scenario?
14. Discuss the importance of Advertisement in Marketing.
16. Explain the Government policies towards small business?

Section C

Answer any three (Answers should not exceed four pages) (3x5=15)

17. Briefly explain the essentials of a successful business and the important documents required to start a company.
18. Explain the steps in preparation of Final Account.

19. Write a short note on Trial balance.

20. Discuss the role of banks in a business.

21. Explain the different channels of distribution in marketing. What is the difference between Wholesale and Retail trade?

HSCF4ET09

INDIAN EMBELLISHMENT TECHNIQUES & QUALITY CONTROL IN GARMENT INDUSTRIES

Max Time: 3hrs

Max Weightage: 30

Part A

Very short answers (write within 1 page). Answer any 5. Weightage 1 for each.

1. What is Patola?
2. Explain Block printing?
3. Write notes on Kasuti?
4. Explain Plackets and collars?
5. What is Crock meter?
6. Explain working and uses of Bead work?
7. Write on any 3 embroidery stitches?
8. Explain Chikankari? (5◊1=5)

Part B

Short answers (write within 2 pages). Answer any 5. Weightage 2 for each.

9. Write the Meaning and principles of quality control?
10. Explain about types of collars?
11. Write about the functions of quality assurance department?
12. Explain about painting techniques?
13. What are the objectives of quality system?
14. Write Role of ISO in quality assurance?
15. Explain Dyeing and dyeing techniques?
16. Write note on brocade weave and carpet weave? (5◊2=10)
Part C

Essays (Write within 4 pages). Answer any 3. Weightage 5 for each

17. Briefly Traditional Indian Embroidery?
18. Define printing. Explain block printing, methods and materials?
19. Define Weaving? Explain types of woven fabrics?
20. Explain Apparel testing equipments?
21. Write about quality parameters? (3×5=15)

HSCF4ET10

QUANTITY FOOD PREPARATION AND FOOD SERVICE TECHNIQUE

Time: 3Hrs Weightage:30

Section A

Answer any five (Answers should not exceed one page)(5×1=5)

1. Write a short note on scope of hospitality in Industry.
2. Explain the methods of purchasing.
3. Give a short note on menu pattern.
4. Define the term Cuisine.
5. What are the objectives of food production?
7. Explain the control measures in Beverages.
8. Define HACCP.

Session B Answer any five (Answers should not exceed two pages) (5×2=10)

9. Distinguish between Alcoholic and Non alcoholic beverages.
10. Briefly explain about the Inventory control.
11. Write a short note on substitutes for meeting fuel shortage.
12. Explain briefly about service equipments.
14. What is importance of Evaluation in food service.
15. Explain the term Production scheduling.

16. Write a short note on purchasing process.

**Section C**

Answer any three (Answers should not exceed four pages) (3x5=15)

17. Explain about the different categories of hotels and their objectives.

18. Write a short note on Product selection and Storage.

19. Menu Planning is the primary control of food service. Discuss.

20. Briefly explain about types of Cuisine and categories of food service management.

21. Explain briefly about standardization of recipes.

**HSCF4ET11**

**NUTRITION MANAGEMENT IN SPECIAL CONDITIONS AND NUTRACEUTICALS**

Time: 3Hrs  
Weightage: 30

**Section A**

Answer any five (Answers should not exceed one page)

1. Distinguish between BMR and RMR.

2. Explain the term Glycemic index of foods.

3. What are the methods of evaluating protein quality?

4. Write a short note on absorption of lipids.

5. What are the functions of EFA?

6. How do the functions of Calcium and Vitamin D interrelated?

7. Give the significance of nutraceuticals.

8. Write a short note on the importance of water soluble vitamins.

(5x1=5)
Section B

Answer any five (Answers should not exceed two pages)

9. Explain the terms a) dietary fibre b) Fructo-oligosaccharides c) Resistant starch.
10. Discuss the metabolism of proteins.
11. Briefly explain the Regulation of intra and extra cellular volume of water.
12. Give the importance of nutraceuticals in health management.
13. What is the role of Calcium, phosphorus, and Magnesium in the human body?
14. Discuss the importance of iron, Vitamin C and Folic acid during pregnancy.
15. Write a short note on Essential amino acids.
16. How the regulations of Energy metabolism do takes place in human body?

(5x2=10)

Section C

Answer any three (Answers should not exceed four pages)

17. Briefly explain the digestion and transportation of Carbohydrates.
18. Give a brief idea about Transfatty acids and its effects on health.
19. Write about the nutritional management in space travel and submarines.
20. Discuss the types and importance of nutraceuticals.
21. Explain the sources, functions and health benefits of Probiotics and Prebiotics.

(3x5=15)

INSTITUTIONAL FOOD ADMINISTRATIONS

Time: 3Hrs

Section A

Answer any five (Answers should not exceed one page)

1. What are the different types of food service Modules?
2. Give a short note on management of finance in food service system.
3. Explain the recruitment and training procedure for staff in food service Modules.
4. Differentiate between ledger accounts and balance sheet.
5. Write a short note on market promotion.
6. Define Cuisine. What are the different types of cuisine?
7. What are the equipments used in food services?
8. Write a short note on performance appraisal. \(5 \times 1 = 5\)

Section B

Answer any five (Answers should not exceed two pages)

9. Briefly explain the theories of management in food service.
10. Write a short note on Kitchen Layout.
11. What is budgetary control?
12. Give a short note on food costs and portion control.
14. What are the measures for time and energy management?
15. What are the objectives in food production? Explain the methods.
16. Write a short note on records to be maintained in food cost analysis. \(5 \times 2 = 10\)

Section C

Answer any three (Answers should not exceed four pages)

17. Explain the sources of finance and adequate cash flow in food service systems.
18. Briefly explain the computer application in record maintenance and management.
19. What are the methods of distribution and service of food?
20. Briefly categorize the service management and service equipments.
21. Give the scope and methods of marketing strategies. \(3 \times 5 = 15\)
BRANCH X E

M.Sc. DIETETICS AND FOOD SERVICE MANAGEMENT

The PG programme in Food Service Management and Dietetics aims to improve the health of people through nutrition. The mission is to provide students with a broad educational background in the science of food and nutrition and food service management. Nutrition and Dietetics is a vital growing field and the opportunities and possibilities in this field are endless. The field of nutrition & dietetics is a multi dimensional field with practical application in our day-to-day lives. With its dynamic and interesting curriculum, this course aims at producing versatile candidates in the field of nutrition and dietetics.

Programme Information

The subjects covered in the post graduate programme are many with Dietetics, Human Physiology, Statistics, Public Health Nutrition, Research Methodology, Food Microbiology, Food Lay Out, Equipments, Food Service Management etc., with Project/dissertation and Internship. The students undergo internship training as a part of their course curriculum in Hospitals and Star Hotels. Thus the programme covers the core subject that has been designed to build and enhance skills of students to meet industry requirements and succeed in the professional environment.

Job Prospects

- The field of Nutrition and Dietetics is expanding, with a projected 21 percent increase in jobs for dietitians and nutritionists through 2014.
- Nutritionists & dieticians could find employment in Food Service and Processing Industry, Hospitals, health clubs, hotels, Catering departments of star hotels, research labs of food manufacturers, health departments of government etc.
- They can also work as consultants or do private practice. Moreover they could find openings in the mass media where top priority is given to disseminating vital information on healthy living.
- Have wider scope in Government sponsored Nutrition programmes and projects in improving health and nutrition both at the National and International level.
- As research assistants /associates in institutes undertaking research programmes in Dietetics, Food Science, Nutrition and health.
- They can work as teaching faculty in higher education and also in Higher Secondary schools offering Home Science at plus two levels.
• There is a great demand in the global nutrition & food industry for highly knowledgeable and competent food scientists.
• Have limitless entrepreneurial opportunities in Quantity Food Production.
• As Nutrition and Food experts in hotels and other catering industries.

Eligibility for Admission:

For admission to the PG programme in Dietetics and Food Service Management, the applicant must have passed B.Sc. programme with specialization in Family and Community Science (Home Science)/Food Service Management and Dietetics/Clinical Nutrition and Dietetics/Food Science and Quality Control/B.Sc. Nursing. Weightage will be given to the above mentioned qualifying degrees (20%).

In addition to the above criteria B.Sc. Graduates in Zoology, Microbiology, Food Microbiology, Chemistry, and Biotechnology with PG Diploma in Nutrition and Dietetics/Open Course in Nutrition for wellness /Dietetics are also eligible.
## DIETETICS AND FOOD SERVICE MANAGEMENT

### COURSE OUTLINE

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Elective 6 - Nutrition Education and Dietetic Counseling  Elective 7 - Nutrition in Critical Care

Elective 8 - Nutrition in Emergencies and Disasters  Elective 9 - Sensory Evaluation.
SEMESTER ñ 1

NUTRITION AND DIET IN HEALTH

Course Code: HSDFICT01
Teaching hours: 5hrs/week
Credit: 4

Objectives:

• To Understand the basic principles of nutrition and the role of nutrition in different conditions
• To Develop competency in planning diets to meet the nutritional requirements of different socio-economic levels
• To Gain knowledge about the methods of assessment of nutritional problems and their implications.

Course outline

Module 1: Nutrition and Health

Nutrition- Definition,Types. Nutrients - Macro and Micro Nutrients- Functions and its role in maintaining nutritional status. Health- definition, Vital link between nutrition and health, Scope of Nutrition.. Concept of adequate nutrition and malnutrition, Assessment of Nutritional Status.

Module 2: Recommended Allowances

ICMR recommended allowances for Indians. Approaches for deriving nutritional requirements and Recommended Dietary Allowances. Concept of reference man and woman, Reference body weights ,Basis for requirements for energy,protein,fats,minerals and vitamins.Adult reference man and reference woman. Different food groups, ICMR ñ Five food group ñ Dietary guide lines and basic principles of meal planning.

Module 3: Nutrition in Pregnancy

Nutritional status and general health, physiological adaptations in pregnancy, effect of nutritional status on pregnancy outcomeñ the nature of weight gain. , storage of nutrients in normal pregnancy, RDA and basis for requirements during pregnancy. Diet during pregnancy, complications of pregnancy with dietary implications, adolescent pregnancy, exercises during pregnancy

Module 4: Nutrition in Lactation

Physiological adjustments during lactation, hormonal controls & reflex action, lactation in relation to growth and health of infants, problems of breast feeding, nutritional components of colostrum and mature milk, special foods during lactation, nutritional requirements and its basis during lactation, diet during lactation.
Module 5: Nutrition in Infancy

Nutritional status of the infants- growth of infants, growth monitoring, nutritional requirements, basis and recommended dietary allowances for the infants, breast-feeding Vs. formula feedings, weaning foods suitable for infants, feeding the premature infants.

Module 6: Nutrition in Pre-School Age

Growth and development of pre school children, need and health care of pre-school children, food habits and nutrient intake of pre-school children. Nutritional problems in pre-school period. requirements, basis and recommended dietary allowances. supplementary foods.

Module 7: Nutrition During School Age

Physical growth, nutritional status of school age children, food habits and nutritional requirements, basis and recommended dietary allowances. Packed lunch.

Module 8: Nutrition During Adolescence

Physical, physiological and psychological changes in adolescents, nutritional needs and requirements and RDA of adolescents, food habits and promotion of desirable eating habits in adolescents, changes needed to prevent malnutrition in adolescents, habits and disorders affecting food intake.

Module 9: Nutrition for the Adult

Nutrition for the adult, food trends and patterns, nutritional requirements and basis for deriving RDA. work efficiency, dietary guidance, nutrition related risk factors, reference man and woman.

Module 10: Nutrition for the Elderly

Physiological and psychological changes during old age, nutritional requirements, factors affecting food intake, common nutritional problems in old age.

Related Experience

Planning diets to meet the nutritional requirements for the following stages in life at different incomes levels.

- Pregnancy
- Lactation, Weaning
- Infancy
- Pre-school age
- School age
- Adolescence
- Adulthood
- Old age
References:


APPLIED HUMAN PHYSIOLOGY

Course Code: HSDF1CTO2

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To learn the different physiological systems in our body and its functions.
- To gain knowledge about nutritional physiology.

Course Outline

Module 1: Elementary Composition of Human Body

Proximate principles ñ Proteins, Lipids, Fats, Carbohydrates, Enzymes and Co-enzymes.

Module 2: Blood

Introduction to haematology, Functions of blood, Functions of plasma proteins, Erythrocytes, Haemoglobin, Iron, Important indices of RBC andHb, Leucocytes/ WBC ñ Functions and blood groups. Blood Transfusion ñ Medical ethics, Importance of stem cells, Scientific and potential use of stem cells.
Module 3: Cardiovascular System

Anatomical consideration of heart and CV system, cardiac cycle, Heart sounds, ECG and its interpretation, heart rate and regulation, Blood pressure ñ Significance and physiological variations, Haemorrhage, Compensatory changes after haemorrhage, Cardiovascular modification during exercise, Pacemaker, Heart block, Ventillation, Ca++ Channel blockers.

Module 4: Respiratory System

Functional anatomy, Non respiratory functions of the lungs, resuscitation and its methods.

Module 5: Digestive System


Module 6: Excretory System

Structure and functions of kidney, Reabsorption, Structure of nephron, GFR, Regulation of reabsorption and common kidney disorders.

Module 7: Nervous System

General aspects of neurology, Synapse conduction, Types of transmission, at synapse and reflex action.

Module 8: The Musculo-Skeletal System

Structure and functions of bone, Cartilage and connective tissue. Disorders of the skeletal system. Types of muscles ,structure and function.

Module 9: Endocrinology

Endocrine secretions, glands, role and regulatory function of endocrine, site of secretions, regulation of secretions. Nutrigenomics ñ concepts and principles, applications, Epigenetics.

Related Experience

1. Demonstration of measuring BP using sphygmomanometer
2. Blood analysis for:
   a. Haemoglobin
   b. Creatinine
   c. Glucose
   d. Urea
   e. Serum proteins
3. Urine analysis for
   a. Albumin
b. Sugar
c. Creatinine
d. Urea
e. Vitamin C

References

- Burke and Taylor (1986) The Living Body, Saunders Company

FOOD FACILITIES, LAYOUT AND EQUIPMENT

Course Code: HSDF1CT03

Teaching hours: 5hrs/week

Credit: 4

Objectives:
- To gain knowledge and develop skills in handling food service equipment.
- To apply knowledge in space allocation of food plants.

Course Outline

Module 1: Introduction to Food Service and Food Service Institutions.

A brief introduction on the above concepts.

Module 2: Equipment in Food Service

Classification in equipment, factors affecting the selection and use of equipment in food service institutions-Electrical and non-electrical equipments used for food storage, food preparation and service. Dish washing, & laundering equipments,holding and modular equipments.
Module 3: Materials Used

Base materials, materials used for finishes and materials used for accessory parts. Strength and limitations of materials.

Module 4: Food Plant

Layout and Space allocation of food plant according to different capacities- Restaurants, dietary kitchen, cafeterias, banquet space. Flow of traffic - receiving food, preparing food, storage and serving, removing soiled utensils to dishwashing area, hand washing. Traffic of guest- entrances and exit.

Module 5: Kitchen Planning

Planning kitchen in relation to equipment, different work centers and sizes in relation to equipment. Modular kitchens

Module 6: Lighting and Ventilation

Lighting suitable for different food plant-Restaurants, Dietary kitchen, Cafeterias, banquet space. Ventilation-purpose, types suitable for different food plants.

Module 7: Finishes

Finishes used for equipment, walls and floors.

Module 8: Catering Systems

Traditional, cook chill and cook freeze systems.

Related Experiences

- Assessment of the medium and heavy duty equipments commonly used in the food service establishments of the locality.
- Visit to various food service establishments to study the layout and equipments commonly used there.

Reference:


ADVANCED FOOD SCIENCE

Course Code:  HSDF1CT04
Teaching hours: 5hrs/week
Credit: 4

Objectives:
• Understand the principles and chemistry of food.
• Apply the principles of food chemistry in practical cooking

Course Outline

Module 1:  Physico-chemical changes

• Physico- chemical changes in relation to cookery
• Gelatinization of flours, starch as thickening agent, gluten formation, retrogradation, gluten formation
• Stages of sugar cookery- fondant, fudge
• Denaturation of protein
• Properties of colloids, emulsions, stabilizers
• Enzymatic and non enzymatic browning

Module 2:  Acceptability testing

• Evaluation of food by sensory and objective methods
• Factors affecting acceptability of food
• Selection of taste panel

Module 3:  Study of cereals and cereal products

• Wheat- Classification and grading. Wheat Flour- Constituents, Processing, Functions and behavior of flour components in dough, flour improvers
• Rice- Quality classification, processing, parboiling
• Corn- Processing of corn flakes
• Malting, popping and puffing of cereal grains
• Bakery Products
• Extruded Foods

Module 4: Legumes, oilseeds and nuts
• Selection and grading
• Anti-nutritional factors
• Edible flours- protein concentrates and protein isolates
• Novel proteins
• Germination ,fermentation
• Uses of oil seed meal
• Processed infant weaning foods

Module 5: Processing of perishable foods
• Fruits and vegetables- Constituents, pigments, role of pectic substances, fruit preservation
• Meat , Egg, Poultry and Seafoodis- Selection, composition and cooking methods
• Milk and milk products- Constituents in milk, processing of milk and milk products

Module 6: Beverages and spices
• Classification, grading and composition
• Active compounds and pigments
• Spices and condiments

Module 7: Fats and Oils
• Classification, physical and chemical properties
• Rancidity, reversion- changes during fat storage
• Anti-oxidants and synergists
• Changes during frying and trans fatty acids. Role of fat in the development of cakes and salad dressings.
• Use of fats and recent developments

Module 8: Functional foods
Definition and classification
• Antioxidant nutrient and free radical scavenging
• Commonly consumed functional foods and their action
• Pre-biotics and Pro-biotics- Definition, chemistry ,sources, bio- availability, effect on human health and application in risk reduction of diseases ( non-digestible carbohydrates- oligosaccrides, dietary fibre,resistant starch, gums.)
Module 9: Food Adulteration
Type and pattern of adulteration, food laws and standards

Module 10: Food Additives
Definition of food additives; acids, bases, buffer systems and salts, chelating agents, antimicrobial agents, sweeteners, stabilizers and thickeners, fat replacers, firming texturizers, appearance control and clarifying agents. Flavour enhancers, sugar substitutes, sweeteners, antioxidants, Anticaking agents, bleaching agents, protective gases.

References


ADVANCED FOOD SCIENCE - PRACTICAL

Course Code: HSDF1CP05
Teaching hours: 5hrs/week
Credit: 2

Objectives:
- To apply the theoretical knowledge of food chemistry in practice.
- To develop insight on the practical aspects of experimental cookery.

Course Outline
Module 1: Physico Chemical Changes in Cookery
- a) Gelatinization of starch
- b) Gluten formation and baking quality of gluten.
- c) Stages of sugar cookery.
Module 2: Cereal Cookery
   a) Effect of mechanical action and ingredients (milk, fat and hot and hard water) in development of gluten. (variations in chappathis).
   b) Development of bread.

Module 3: Pulse Cookery
   a) Effect of fermentation in the development of batters - development of idli /dosa batters with variation in the cereal pulse ratio.
   b) Development of recipes using sprouted greengram.

Module 4: Milk Cookery
   a) Development of paneer and khoa.
   b) Development of ice creams.

Module 6: Egg Cookery
   a) Factors affecting formation of egg white foams (beating time, vessel temperature, acid, fat, salt, water, sugar)
   b) Development of cakes.

Module 7: Sugar Cookery
   a) Development of recipes with the different stages of sugar cookery.

Module 8: Food Preservation Methods
   a) Demonstrate the different stages of jam preparation.
   b) Blanching
   C) Preparation of pickles, squashes and jellies.

Module 9: Fat Cookery
   a) Determination of smoking point.
   b) Iodine value
   c) Preparation of an emulsion - mayonnaise.

Module 10: Subjective Evaluation of Food Quality
   a) Sensitivity tests
   b) Acceptability of a new product
   c) To know likes and dislikes
SEMESTER II

DIETETICS

Course Code: HSDF2CT06
Teaching hours: 5hrs/week
Credit: 4

Objectives:
- Gain knowledge about the principles of diet therapy and planning therapeutic diets.
- Develop aptitude for taking up dietetics as a profession.

Course Outline

Module 1: Nutritional Care Process

Module 2: Nutritional Intervention - Diet Modifications
Adequate normal diet as a basis for therapeutic diets; Diet Prescription; Modification of Normal Diet; Nomenclature of Diet Adequacy of Standard Hospital Diets; Psychological factors in feeding the sick person.

Module 3: Modifications of Diets in Febrile Conditions
Acute, chronic and recurrent fevers- typhoid, rheumatic fever, poliomyelitis, cholera, and malaria.

Module 4: Dietary Modifications for Metabolic Stress ñ Sepsis, Trauma, Burns, Surgery
Metabolic response to stress, determination of nutrient requirements, Preoperative and postoperative diet.

Module 5: Medical Nutrition Therapy for Pulmonary Diseases

Module 6: Disease of the Gastro Intestinal System ñ Etiology and Modification of Diet
(a) Gastric Diseases
Diseases of esophagus ñ Gastro esophageal Reflux and Esophagitis
Diseases of stomach- Indigestion and Dyspepsia, Gastritis, Gastric and duodenal ulcers, Carcinoma of the Stomach, Gastrectomy, Dumping syndrome.
(b) Intestinal Diseases

Flatulence, Constipation, Irritable Bowel Syndrome, Hemorrhoids, Diarrhoea, Steatorrhoea, Diverticular disease, Inflammatory Bowel Disease, Ulcerative Colitis.

(c) Malabsorption Syndrome

Celiac Sprue, Tropical Sprue, Intestinal Brush border deficiencies (Acquired Disaccharide Intolerance) Protein Losing Enteropathy.

Module 7: Diet in Diseases of the Liver, Pancreas and Biliary System


Module 8: Metabolic Disorders

Predisposing factors and modification of diet in diabetes mellitus, hypothyroidism, hyperthyroidism and gout.

Module 9: Diseases of the Circulatory System - Atherosclerosis

Hyperlipidemias; Clinical and nutritional aspects of Hyperlipidemias, Classification and Dietary care of Hyperlipidemias, Nutritional care in cardiovascular disease (Ischemic heart disease, Pathogenesis of sodium and water retention in Congestive Heart Disease. Acute and Chronic Cardiac Disease, Heart failure and transplant, Acute - Stimulants, food & consistency, Chronic - Compensated and decompensated states, Sodium Restriction in Cardiac Diseases, Diet in Hypertension - Etiology, Prevalence, Renin-Angiotensin mechanism, Salt and Blood pressure, Cerebrovascular diseases and diet in brief).

Module 10: Renal Disorders


Module 11: Nutritional Deficiency Disorders

Protein energy malnutrition, Vitamin A deficiency, Nutritional and non-nutritional Anemias, other common vitamin mineral deficiencies. Pathogenesis and dietary management in the above conditions.
Module 12: Diet Therapy in Diseases of Infancy and Childhood

Inborn errors of metabolism, lactose intolerance and problems of feeding children in hospitals, low birth weight infants, nutritional problems in childhood.

References:

BIOCHEMICAL CHANGES IN DISEASES

Course Code: HSDF2CT07

Teaching hours: 5hrs/week

Credit: 4

Objectives:

• To understand the biochemical and pathological changes in diseases.
• To acquire skills to estimate selected body metabolites.

Course Outline

Module 1: Essentials of Pharmacology

Fundamental concepts, Drug action- Cardio vascular systems, Infections and Cancer chemotherapy, Digestive system, Hyperlipidemia, Local anesthetics, hormones & related drugs.

Module 2: Drug Interactions and Miscellaneous Drug Effects

Drug and nutrient interactions, Diuretics, Anti hypertensives

Module 3: Disorders of Carbohydrate Metabolism

Normal carbohydrate metabolism- Review, Decrease of plasma glucose concentration and increase of glucose concentration, Disorders associated with hyperglycemia, hypoglycemia and reducing sugars in the urine. Estimation of serum glucose concentration, chemical methods, enzymatic methods, Urine glucose concentration, Glucose in cerebro spinal fluid, Ketone Bodies in urine, Identification of reducing bodies in urine- Anti diuretics.

Module 4: Abnormal Lipid Metabolism

Review of normal metabolism, Serum total Cholesterol, Triglyceride and lipo proteins, phospholipids, and glycolipids, plasma lipids in various diseases- Atherosclerosis, hypertension, hypolipidemia, and ketosis. Factors associated with development of heart diseases, anti hypertensives, Diuretics, lipid lowering drugs. Plasma lipoprotein levels in various diseases, chemical and enzymatic estimations of cholesterol and other lipids, beta blockers.

Module 5: Protein Metabolism


Module 6: Disorders Associated With Gastric Mucosa

Chemical pathology, gastric function tests, endoscopy, gastric stimulation tests, antinausea drugs.
Drugs acting on the digestive system- Constipation, antacids, antidiarrhoeal drugs, drugs-modifying secretory functions.

**Module 7: Liver, Gall Bladder and Pancreas**

Bilirubin and liver function, Clinical significance of altered bilirubin levels, ammonia and liver, hepatitis and liver damage, alcohol and liver damage, Reyes syndrome.

Disorders of gall bladder, bile salts and bile pigments. Disorders of pancreas, liver, gall bladder and pancreas function tests.

**Module 8: Intestinal Disorders**

Disorders associated with intestine - diarrhea, constipation diverticulitis, diverticulosis, flatulence, gluten-sensitive enteropathy, inflammatory bowel disease, irritable bowel syndrome, lactose intolerance, short bowel syndrome, steatorrhoea, ulcerative colitis ñ colonoscopy.

**Module 9: Kidney Disorders**

Pathological conditions involving kidney, Concept of renal clearance, excretion of creatinine, urea, uric acid, laboratory diagnosis of renal diseases ñ nephrosis, nephrotic syndrome, acute renal failure, renal tubular disorders. Artificial kidney, principles of dialysis, type of dialysis; Drug interactions ñ inhibition of renal eliminations

**Module 10: Blood Picture**

Different types of anemia, blood coagulation ñ normal and abnormal, clinical changes in AIDS. Anti anemic, immune suppressant drugs.

**Module 11: Body Electrolytes**


**Related Experience**

1. Quantitative estimation of glucose in blood and urine ñ Qualitative tests for sugar in urine.
2. Quantitative estimation of cholesterol in blood. Qualitative tests for acetone and acetoacetic acid
4. Demonstration experiment on serum bilirubin.
5. Observation of dialysis.

**References**


Journals

• Current Science
• Indian journal of nutrition and dietetics
• Trends in biochemical science

NUTRITION IN SPECIAL CONDITIONS

Course Code: HSDF2CT08

Teaching hours: 5hrs/week

Credit: 4

Objectives:

o Understand the special conditions which require nutritional support
o Learn the type of diet needed in special conditions.

Course Outline

Module 1: Space Nutrition

Space Physiology-Bone, muscle, blood; Types of space foods-Rehydratable Food, Thermostabilized Food, Intermediate Moisture Food, Natural Form Food, Irradiated Food, Frozen Food, Fresh Food, Refrigerated Food, Dietary intake during Space Flight.

Module 2: Nutrition for Muscular Skeletal System

Bone structure and bone physiology, bone mass, nutrition and bone, osteopenia and osteoporosis, musculo skeletal system disorders-- muscular dystrophy, osteoporosis, osteoarthritis and rheumatoid arthritis.

Module 3: Nutrition for Oral and Dental Health

Nutritional factors in tooth development, dental caries, preventive care, periodontal disease, early childhood caries, tooth loss and dentures, oral manifestations of systemic disease.

Module 4: Nutrition Therapy for Neurological Disorders

Neurological disorders- neuropathies, migraine, stroke.
Module 5: Nutrition Therapy for Allergic Conditions

Food Allergy, symptoms, common food allergens, food intolerance - food additives, carbohydrate intolerance, food elimination diet, immunologic basis, allergic reactions, risk factors for the development of food allergy.

Module 5: Nutrition Therapy for Critically Ill Patients


Module 6: Nutrition Therapy for HIV Disease

Pathophysiology, etiology and classification, opportunistic infections, complications and malnutrition, women and HIV, pediatric consideration, medical nutrition therapy.

Module 7: Nutritional Considerations in Brief for the Following:

- Military (army, war), naval personnel
- High Altitudes, Low Temperature, Submarines
- Emergencies such as drought, famine, floods etc.

Module 8: General Nutritional Guidelines for Intellectual and Developmental Disabilities

Defining developmental and Intellectual disabilities, etiology, principles of nutrition care.

Module 9: Nutrition Therapy for Psychiatric Conditions

Mental illnesses access I and access II Disorders, Nutritional aspects of Brain and Nervous system, Nutrition recommendations for psychiatric conditions.

Module 10: Nutrition in Cancer: Nutrition in the Etiology of Cancer

- Types & symptoms
- Cancer therapies and treatment - side effects and nutritional implications.
- Goals of care and guidelines for oral feeding
- Accommodating side effects
- Feeding and blend preparation for cancer.

- Enteral tube feeding - Nasogastric, Gastrostomy, Jejunostomy
- Parenteral Nutrition
- Pediatric patients with cancer
- The terminal cancer patient
- Antioxidants during Anti cancer therapy
Module 11: Diet Therapy for Genetic Diseases

- Amino acid disorders
- Carbohydrate disorders
- Others

References

RESEARCH METHODS AND STATISTICS

Course Code: HSDF2CT09

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To understand the significance of research methods and statistics in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
- To understand and apply the appropriate statistical techniques to analyse numerical data and draw inferences.

Course Outline

Module 1 ñ Introduction to Research

Definition, Objectives and Characteristics of research, Types of Research ñ Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research.

Module 2 ñ Identification of Research Problem

Sources of research problem, Criteria for the selection of research problem. Research design, Rationale, Statement of problem, Setting objectives, Definition of concepts, operational definition, variables ñ independent and dependent, control and intervening variables, limitations and delimitation. Hypothesis ñ Meaning and importance, types of hypotheses.
Module 3 ñ Sampling
Population and Sample, Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non sampling errors.

Module 4 ñ Research methods and tools

STATISTICS
Module 1 - Descriptive Statistics:
Measures of Central Tendency ñ Mean, Median, Mode; Partition Values ñ Quartiles, Deciles and Percentiles, Measures of Dispersion ñ Range, Quartile deviation, Standard deviation. Absolute and Relative measures of dispersion, Coefficient of variation.

Module 2 - Correlation and Regression:
Correlation and Regression. Scatter diagram, Correlation, Coefficient of Correlation ñ Karl Pearson and Rank Correlation Coefficients. Interpretation of Calculated coefficients. Concept of Regression, Regression Lines and their estimation.

Module 3 - Concept of Probability and Random Variable.

Module 4 - Sampling distributions
Sampling distributions, F and $\chi^2$ distributions. Central Limit theorem, Standard error and its importance and applications. Testing of Hypothesis ñ Hypothesis, Null and Alternative hypothesis, Type I and Type II errors, Significance Level and size of test, Critical Region, Testing Procedure concept of P Value in testing. Large and small sample tests (Z, t, F and $\chi^2$ statistics)

Related Experience
Afive day training in using SPSS or similar package used in statistical analysis of data.

References


DIETETICS ñPRACTICAL AND INTERNSHIP

Course Code: HSDF2CP10

Teaching hours: 5hrs/week

Credit: 2

Objectives

• To emphasize skill development in the formulation and use of diet prescriptions.

• To develop skills in preparing therapeutic diets.

• To develop capacity for taking dietetics as a profession.

Course Outline

1. Practical experience in weighing and measuring.
2. Preparation of clear and full liquid diets and soft diet.
3. Planning and preparing diets for:
   a) Febrile conditions- typhoid, cholera, rheumatic fever.
   b) Pulmonary diseases-Tuberculosis, Pneumonia ,Chronic lung disease,
   c) Surgical conditions and burns
   d) Gastrointestinal disorders- constipation, diarrhea, ulcerative colitis, peptic ulcer.
   e) Live and gall bladder disorders ñ Hepatitis, cirrhosis, Cholelithiasis.
F) Metabolic disorders- diabetes, hypo and hyperthyroidism, gout

g) Cardio vascular disorders- hyperproteinemia, arteriosclerosis, hypertension.

h) Renal disorders- nephritis, renal failure, nephrolithiasis, dialysis.

i) Obesity and underweight

j) Nutritional deficiency- Vitamin A and iron deficiencies

4. Planning and preparing paediatric diets
   a) Lactose intolerance
   b) Juvenile diabetes
   c) Diets for inborn errors of metabolism.

5. Visit to hospital dietaries

5. Dietetics Internship

Objectives:

- Get an exposure to the working situation of the dietary department of a reputed hospital.
- Develop skills in Diet counseling and feeding of patients.
- Develop capacity for taking up dietetics as a profession.

1. Hospital internship in an established dietary for one month.

Gain experience in:

- Organization and layout of diet kitchen.
- Food purchase stores and issues.
- Food production and menu planning
- Food service and distribution.
- Calculation of diets and dietary management of patients.
- Nutrition education and diet counseling of patients.

2 Case Study

1. Selection of three admitted patients from a hospital
2. Study the clinical, nutritional and biochemical profile on admission during hospital stay and at discharge.
3. Critically evaluate therapeutic modification of diet
4. Plan maintenance diet on discharge after diet counseling.
5. Writing of report.

3 Project

Any one from dietetics with special emphasis on therapeutics

SEMESTER III

FOOD SERVICE MANAGEMENT

Course Code: HSDF3CT11
Teaching hours: 5hrs/week
Credit: 4

Objectives

- To develop a knowledge base in key areas of institutional food administration
- To gain knowledge about the principle of management
- To develop skill in organizing and establishing Food Service Institutions.
- To impart necessary expertise to function as a Food Service Manager.

Course Outline

Module 1: History and Development of Food Service System

History, Food service establishments, Types-commercial and non-commercial, their characteristics

Module 2: Planning a Food Service Unit

Planning, Investment, funds, Project report, registration

Module 3: Setting a Food Service Unit

Layout, Design (definition), Layout for different food service establishments, planning a layout. Evaluation of plans
Module 4:  Food Service Management


Module 5:  Directing and Administrative Leadership

Direction, leadership, delegation, decentralization, centralization, supervision, human relations in industry, authority and responsibility, motivation, communication.

Module 6:  Staff Planning and Management

Manpower planning, selection, recruitment and training, wages, salaries, incentives, promotion, demotion, transfer, dismissal

Module 7:  Food Management-Records for Control

Maintenance of accounts ñ Daily, weekly, monthly accounts for food, labour equipment and furnishing, rent, water, fuel, light, licenses, cleaning supplies maintenance and miscellaneous. Budgetary control, non budgetary control, cost control, cost control, fixed, variable cost, marginal and unit cost, Break-even analysis, production planning control.

Module 8:  Evaluation

Objectives, techniques and problems.

Module 9:  Personal Functions: - Work Productivity

Work study, Work simplification, Work design, and Job design

Module 10:  Managerial Problems

Managerial problems of food service unit. Methods to tackle problems.

References

QUANTITY FOOD PREPARATION AND FOOD SERVICE TECHNIQUES

Course Code: HSDF3CT12

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To understand the objectives of different types of food service institutions
- 2 To gain knowledge in menu planning, preparation of recipes in large scale and serving and also in food costing.

Course Outline

Module 1: Food Service Theory

Scope of hospitality in Industry, Different types of food service institutions, and their objectives.

Module 2: Menu Planning- The Primary Control of Food Service

Menu pattern, Planning, presentation, prizing and evaluation.

Module 3: Purchasing

Procurement, product selection, specification, methods of purchasing and purchasing process.

Module 4: Storage

Receiving, storage and inventory control.

Module 5: Production Planning and Standardisation of Recipes

Standardisation and portion control production forecasting and production scheduling

Module 6: Quantity Food Production and Quality Control

Objectives of food production, Methods of production, product standards and production control - HACCP

Module 7: Distribution and Service of Food

Types of cuisine and food service, styles of Food service, service management and service equipment.

Module 8: Fuel

Equipment and fuel economy, Substitutes for meeting fuel shortage.
Module 9: Beverages

Alcoholic and Nonalcoholic beverages, preparation, service and control measures.

References


HOSPITALITY ADMINISTRATION

Course Code: HSDF3CT13

Teaching hours: 5hrs/week

Credit: 4

Objectives

- To develop skill in managing accommodation department and dealing with the procedures
- To know the organizational and procedural aspects of front office and housekeeping departments of hospitality institutions
- To identify the need and use of different tools and equipments belonging to the two departments
- To develop social skills and effective communication in dealing with guests, colleagues and management

Course Outline

Module 1: Introduction to hospitality and hotel industry and tourism

Classification of hotels and other hospitality Institutions, importance of tourism for hospitality industry, types of operations, Hostess training

Module 2: Organisation of departments

Departmental classifications, numbering of rooms and food plans, room types and rates, Tariff structure, rate policies
Module 3: Front Office and Guest reservation

Importance of the department, Layout and planning, Staffing pattern and duties, Basic Terminology used in the department, Qualities and etiquettes of front office staff

Module 4: Basic reservation system

VIP Procedures, Computerized reservation forecasting, Cancellation, penalty, Arrival and departure, C-Form, procedures of check-in and check-out, Key handling and control, Luggage handling, Book Keeping and Record Maintenance, Lobby management, Public relations, Co-ordination and communication of front office with other departments

Module 5: Records for control

Importance of reports, the front desk log, maintaining room status, maintaining account balance, monitoring availability, electronic front office, electronic point sale system, room status indicator, accounting equipment

Module 6: Housekeeping

Importance and need of Housekeeping Department, Organisation and duties, Hierarchy and Job descriptions, Layout, Inter-departmental coordination and communication, Interrelationship with Personnel Department: Importance and functions, Manpower planning, Recruitment, training and appraisals

Module 7: Linen room and Laundry management

Classification and selection of linen, par stock determination, storage, distribution and control of linen and uniforms, condemnation and reuse, bed making and turning down, Layout and physical attributes of Linen room and storage and laundry, Staff and duties, wet and dry washing, finishing processes and stain removal

Module 6: Upkeep, Sanitation and hygiene

Cleaning Guest rooms and service areas, Rules, procedures and principles, Methods of Cleaning of various materials, types of room cleaning- daily, weekly, spring cleaning etc. Equipments, cleaning agents and maidís trolley, Sterilization, disinfection, Control of infestation, Integrated Waste Management (IWM), Room inspection checklist, repair and maintenance, Refrigeration and A/C, Public address system and music

Module 7: Aesthetic treatments of Interior environment

Interior decoration in Commercial / hospitality areas, window treatments, Selection and care of Furniture, furnishings, lighting and accessories, Floral decorations and table setting and layout, Indoor gardens and Landscaping

Module 8: Safety Education and First Aid

For shock, fainting, stroke, burns, fits, heart attack, etc. Safety measures, fire preventions and control, accident prevention, security measures
Related Experience:

1. Visit to front office and housekeeping departments of various institutions
2. Role play of guest handling / First Aid / Hostess duties / etiquettes
3. Practical Bed making / Table setting / Flower Arrangement / Curtain Styles
4. Internship in Housekeeping/ Front Office at any Institution/ Preparation of modules for training housekeeping attendants

Reference:

- Express Health Care Management
- Ismail A., Front Office ñOperations and Management, Thomson and Delmar Publishers, Canada
- Raghubalan and Smritee Raghubalan, Hotel Housekeeping- Operations and Management, Oxford University Press, New Delhi

SCIENTIFIC WRITING AND PROJECT FORMULATION

Course Code: HSDF3CT14

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To be able to appreciate and understand importance of writing scientifically.
- To develop competence in writing and abstracting skills.

Course Outline

Module 1: Scientific writing as a means of communication

Different forms of scientific writing. Articles in journals, Research notes and reports, Review articles, Monographs. Dissertations, Bibliographies, Book chapters and articles.
Module 2: How to formulate outlines

The reasons for preparing outlines: as a guide for plan of writing, as skeleton for the manuscript, Kinds of outlines, Topic outlines, Conceptual outline, Sentence outlines, Combination of topic and sentence outlines

Module 3: Drafting titles, Sub titles, tables, illustrations

Tables as systematic means of presenting data in rows and columns and lucid way of indicating relationships and results. Formatting tables: Title, Body, Stab, Column, Column Head, Spanner Head, Box Head, Appendices : use and guidelines

Module 4: The writing process

Getting started, Use outlines as a starting device, Drafting, Reflecting, re-reading; Checking organization, Checking headings, Checking content, Checking clarity; Checking grammar, Brevity and precision in writing, Drafting and re-drafting based on critical evaluation

Module 5: Parts of dissertation/research report/article

Introduction, Review of literature, Methods, Results and discussion, Summary and abstract, References. Ask questions related to : content, continuity, clarity, validity, internal consistency and objectivity during writing each of the above parts.

Module 6: Writing for Grants

The question to be addressed, Rationale and importance of the question being addressed, Empirical and theoretical framework, Presenting pilot study/data or background information, Research proposal and time frame. Speciality of methodology, Organization of different phases of study, Expected outcome of study and its implications, Budgeting, Available infra-structure and resources, Executive summary

References


 FOOD SERVICE MANAGEMENT - PRACTICAL AND FIELD EXPERIENCE

Course Code: HSDF3CP15

Teaching hours: 5hrs/week

Credit: 2

Objectives:

• To enable students get practical experience in planning, organizing, controlling and evaluating the management of human, material and financial resources.

Course Outline

Module 1: Practicals

Food production

1. Selection of recipes suitable for various types of food services establishments ñ Multi cuisine, especially fast foods.
2. Standardisation of recipes.
3. Stepping up of standardized recipes for quantity products (more than 50 portions)

Module 2: Field Experience

Planning, purchasing, preparing and serving foods in the college cafeteria. Cost and profit analysis.

Module 3: Field Study on Any One of the Following Aspects

1. Planning and design of a food service establishment.
2. Equipment design and arrangement related to food service.
3. Costing, pricing and profit calculation of a food service unit.
4. Sanitation and hygienic practices followed in a unit.
5. Quantity control in various stages of food service.
6. Food purchasing, selection and storage practices in a food service unit.
Module 4: PROJECT

Design and conduct a study related to any of the topics in the course content of Food Service Management.

SEMESTER ñ 1V

PUBLIC HEALTH NUTRITION

Course Code: HSDF4ET01

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To develop a holistic knowledge base and understanding of the nature of nutritional problems and their prevention and control for the disadvantaged and upper socioeconomic strata in society.

- To understand the causes/determinants and consequences of nutritional problems in society.

- To be familiar with various approaches to nutrition and health interventions programmes and policies.

Course Outline

Module 1: Food and Nutrition Situation in India

Hunger in India, India state Hunger Index (ISHI) Food and Nutrition security, production and availability of foods in India, consumption pattern, trends in nutrient intake and nutritional status

Module 2: Principles of epidemiology and epidemiological methods

Introduction to epidemiology, aims, classifying epidemiological study methods, nutrition epidemiology and public health nutrition.

Module 3: Assessment of nutritional status in community setting

Module 4: Epidemiology of Nutritional Disorders

Prevalence, Aetiology, Consequences and treatment of PEM-Clinical syndromes, prevention of malnutrition, managing PEM; Vitamin A Deficiency-Consequences, epidemiology, aetiological factors, intervention strategies for preventing Vitamin A deficiency disorders (VADD)

Iron Deficiency Anaemia-Epidemiology, Prevalence, aetiological consequences, approaches for prevention and control of anaemia, National Nutritional Anaemia Control Programme; Iodine Deficiency Disorders-Epidemiology, aetiological factors, consequences of IDD, IDD as a public health problem, elimination of IDD-An International focus, National Iodine Deficiency Disorders Control Programme Of India; Zinc Deficiency-Epidemiology, public health significance, clinical manifestations of zinc deficiency, Zinc supplementation in pregnancy, Fluorosis

Module 5: Organisations and Programmes in the field of nutrition monitoring and Interventions

Brief outline of WHO, FAO, UNICEF, CARE, NFHS, NNMB, ICDS, ICMR, ICAR

Module 6: Nutrition Education

Definition, Significance, Design and implementation of NHE Programme Receiver, Communicator, Message Channel, Theories of Nutrition Education, Evaluation-Purpose and Types of evaluation.

Module 7: Food Fortification

Technical considerations, technology for food fortification, fortificants, planning food fortification intervention, fortification of selected food items

Module 8: Nutrition related non communicable chronic disorders

Prevalence at global and national level, cardiovascular disease, hypertension, obesity, diabetes mellitus, cancer. Risk factors for Non Communicable Diseases-Community based programmes for primary prevention, Health education and role of mass media, secondary and tertiary prevention.

References

- Public Health Nutrition in Developing Countries Edited by Sheila Chander Vir Woodhead Publishing India, Part I & II. 2011
FOOD MICROBIOLOGY AND SANITATION

Course Code: HSDF4ET02
Teaching hours: 5hrs/week
Credit: 4

Objectives:

- Understand the common organisms associated with food borne illnesses.
- Gain knowledge on the necessity for cleanliness in preparation and service of foods.

Course Outline

Module 1: Fundamentals of Microbiology

Introduction to microbiology and food sanitation; Bacteria: morphology, reproduction physiology, growth curve and biochemical changes in bacteria; Yeasts: Morphology, method of multiplication, hybridization, physiology; Classification and importance of yeasts; Moulds: Morphology, multiplication, physiology and nutrition, significance of moulds and common household moulds; Viruses: bacteriophages, morphology, reproduction, human viral diseases- Identification and control, and viruses in relation to food science.

Factors affecting the survival and growth of microorganisms in food. Intrinsic and Extrinsic parameters that affect microbial growth. Intrinsic factors for growth- Generalized, nutrient effect, pH, buffer, anaerobic/aerobic conditions, moisture content, temperature, gaseous atmosphere. Implicit factors- properties of microorganisms-response

Module 2: Microbiology of Natural Products

Water: Sources, bacteriology of water supplies, bacteriological examination and purification of water.

Module 3: Microbiology of Milk and Milk Products

Kinds of micro organisms in milk, source of contamination, pathogens in milk, control of micro organisms, quality and method of study, microbiology of dairy products- fermented milk, butter and cheese.

Module 4: Microbiology of Fruits and Vegetables

Fruits: External contamination, preservation and spoilage of fruits; Vegetables: contamination and control of micro organisms in vegetables.

Module 5: Microbiology of Cereal and Cereal Products

Organisms associated with grains, common microbial spoilages in bread.
Module 6: Microbiology of Flesh Foods

Bacteria found in meat, microbiology of poultry, fish and meat products.

Module 7: Principles of Food Spoilage

Spoilage: Microbiological, physical and chemical factors. Spoilage and examination of canned food. Methods of food preservation, food borne diseases and their outbreak.

Module 8: Sanitation and Safety

Food safety ñ basic concepts, introduction, food safety and importance of food, factors affecting food safety:-physical hazards, biological hazards and chemical hazards. HACCP system and food safety used in controlling microbiological hazards; Microbiological criteria of foods and their significance. Personal hygiene, sanitation in handling food. Equipment, Plant constructions, equipment, water supply and sewage disposal. Causes for kitchen accidents and prevention causes. Falls, Burns, suffocation, poisoning, injury by sharp instruments, solving the accident problem and education in safety habits.

Module 9: Role of Microbes in Fermented Foods and Genetically modified foods.

Module 10: Food borne diseases

Bacterial and viral food ñborne disorders, Food-borne important animal parasites, Mycotoxins

Module 11: Food Preservation

Methods of food preservation, dehydration, canning, freezing and pickling. Use of syrup, irradiation and microwave.

Related Experience:

- Preparation of media for cultivating micro organisms. Inoculation of the media. Isolation of pure culture
- Identification of bacteria in water, air, food and utensils.
- Demonstration of available rapid methods and diagnostic kits used in identification of micro organisms or their products.
- Identification of micro organism in processed foods

References:


**NUTRITION FOR SPORTS AND FITNESS**

**Course Code**: HSDF4ET03

**Teaching hours**: 5hrs/week

**Credit**: 4

**Objectives**:

1) To understand the components of health and fitness and the role of nutrition in these.

2) To make nutritional, dietary and physical activity recommendations to achieve fitness and well-being.

3) To develop ability to evaluate fitness and well-being.

4) To understand physiological changes and nutritional requirements during sports events.

**Course Outline**

**Module 1: Physical fitness and health**

1. Introduction to physical fitness and wellness
2. Contributing factors to health
3. Objectives of physical fitness
4. Motivation for a physically active life, motivational strategies
5. Principles of nutrition for health.

**Module 2: Weight management and fitness**

1. Body weight components
2. Body composition assessment
3. Regulation of bodyweight(energy)
4. Weight imbalance- underweight, overweight and obesity(types)
5. Management of obesity
Module 3: Dietary management for health

1. Critical review of various dietary regimes for weight and fat reduction
2. Dietary guidelines appropriate to health and fitness with special reference to obesity, cardiovascular diseases and diabetes.

Module 4: Exercise Performance and Nutrition

1. Energy expenditure during physical activity
2. Carbohydrates and performance
3. Fat metabolism and performance
4. Effect of exercise on protein requirements
5. Vitamins and Minerals
6. Fluid and electrolyte loss and replacement in exercise

Module 5: Sports nutrition

- Sports physiology
- Nutritional requirements in sports events - team, power, endurance events
- pre-game and post-game regime
- Carbohydrate loading, water and electrolyte balance
- Role of nutrition, stress, fracture and injury.

Module 6: Nutritional Ergogenics

Ergogenic aids and Supplements - Types, Potential and Concerns

Module 7: Measures of performance and physical fitness

References:

ENTREPRENEURSHIP MANAGEMENT

Course Code: HSDF4ET04

Teaching hours: 4hrs/week

Credit: 4

Objectives

- To gain an understanding of the various aspects and types of business organizations
- To impart information on the various sources of finance and also on the process of setting up small enterprise.
- To enable students to understand the relevance of entrepreneurship and to develop effective entrepreneurship skills among students.

Course Outline

Module 1: Entrepreneurship and its development

Entrepreneurship-Definition, types, characteristics, Entrepreneurship development for employment generation- importance, Factors affecting entrepreneurial growth- economic, social, cultural and personal factors.

Module 2: Women and Employment

Women employment in India - categories of employment, problems related to employment, Unemployment in India- causes & remedies, Importance of self employment.

Module 3: Forms of Entrepreneurial Organizations

Scope and Objectives of modern business, Essentials of successful business, Sole proprietorship, Partnership, Joint Stock company, State enterprises and Co-operative societies — meaning, merits and demerits of each, Types of important documents of companies

- Modern Nutrition in Health and Disease edited by Maurice B Shils, Moshe Shike, A, Catherine Ross, Benjamin Cabellero, Robert J Cousins, Lippincott Williams & Wilkins 2006.
Module 4: Entrepreneurship and Institutional support

Objectives, functions and assistance given by SIDCO, SIDO, SFCK, IDBI, SIDBI, KSIDC, KSWDC, KITCO, SEWA, SGSY (Swarnjayanti Gram Swarojgar Yojana), JGSY (Jawahar Gram Samridhhi Yojana), Agencies promoting entrepreneurship ñ role of NSIC (National Small Industry Corporation), Small Industry Extension Training Institute (SIETI), Central Small Industry Organisation (CSIO) DCK, DRDA, KVIC (Khadi and Village Industry Commission) and other voluntary organizations, Small Scale Industries (SSI) - Definition, types, procedure for setting a small scale unit, training facilities for small scale unit, Problems faced by emerging small scale units and remedies.

Module 5: Source of Finance

Importance of finance- sources of company finance - long term and short term, Role of banks and other financial institutions, Basics of Costs and Cost Control, Project Appraisal.

Module 6: Book keeping & Accounting


Module 7: Marketing & Sales promotion

Marketing- Marketing mix, Functions, types, Advertising & Salesmanship, Public relations, Personal selling, Interpersonal skills, factors affecting the entrepreneurís skill.

Related Experience:

1. Visits to agencies involved in development of entrepreneurship

2. Preparation of a project proposal by

   - Selection of a trade
   - Visits to 1 or 2 units related to trade
   - Study the infrastructural requirements
   - Records to be maintained
   - Procedure for obtaining loan

References

- Bhattacharyya, S.K Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi
• Bhushan, Business Organization, Sultan Chand & Sons, New Delhi, (1985)


• Gupta C.B. (Dr.), Office Organization and Management, Sultan Chand & Sons, New Delhi, (1999)

• Kanikar Entrepreneurs and Micro Enterprises in Rural India, New Age International Publishers Ltd., New Delhi (1995)

• Khanka S.S, Entrepreneurial Development, S.Chand&Co.Ltd., New Delhi, (1999)

• Ramesh Babbuis Handbook of Entrepreneurs, Business Intelligence Publications


• Shukla M.C., Business Organisation, S. Chand & Co. New Delhi, (1970)

**PUBLIC HEALTH NUTRITION PRACTICAL AND FIELD WORK**

Course Code: HSDF4EP05

Teaching hours: 6hrs/week

Credit:3

**Objectives:**

- To develop skill in field level application of the techniques of assessing nutritional status
- To acquire skill in organising and implementing community nutrition projects
- To give an insight into the various low cost ingredients available in market and prepare low cost nutritious dishes for vulnerable segments in the community

**Course Outline**

1. Assessment of nutritional status of pre-schoolers
2. Use and interpretation of Growth Charts
3. Preparation of low cost recipes-low cost recipes, Cyclic menu and one dish meal
4. Formulating messages for Nutrition and Health Education
5. Development, Use and Evaluation of methods and aids for NHE
6. Assessing Nutritional concerns among vulnerable groups ñ Use of anthropometry, biochemical tests, Clinical assessment, dietary assessment or Rapid assessment techniques
7. Planning and implementation of a Nutrition and Health Education programme in the community
9. Study of a Community Agency

NUTRITION EDUCATION AND DIETETIC COUNSELING

Course Code: HSDF4ET06
Teaching hours: 5hrs/week
Credit: 4

Objectives:

• Know the role of a dietitian.
• Gain knowledge on giving dietary prescription and diet counseling
• Understand the method of working with hospitalized patients.

Course Outline

Module 1: Role of Dietitians in the Hospital and Community

Professional qualification and personal attributes, types of dieticians, Professional ethics, responsibilities. Dietitian as part of the Medical Team and Outreach Services

Indian dietetic association- origin, objectives, membership, chapters, registration.

Module 2: Diet Therapy and Nutritional Care in Disease

The Nutritional Care Process - Nutritional Care Plan -Setting goals and objectives short term and long term; Assessment and Therapy in Patient Care - Implementation of Nutritional Care- Counseling and Patient Education, Dietary Prescription

Module 2:

Clinical Information - Medical History and Patient Profile Techniques of obtaining relevant information, Retrospective information, Dietary Diagnosis, Assessing food and nutrient intakes, Lifestyles, Physical activity, Stress, Nutritional Status. Correlating Relevant Information and identifying areas of need.
Module 3: The Care Process

Module 4: Motivating Patients.

Module 5: Working with - Hospitalized patients (adults, pediatric, elderly, and handicapped), adjusting and adopting to individual needs. Outpatients (adults, pediatric, elderly, handicapped), patient’s education, techniques and modes.

Module 6: Follow up, Monitoring and Evaluation of outcome, Home visits

Module 7: Maintaining records, Reporting findings, Applying findings, Resources and Aids for education and counseling, Terminating counseling, Education for individual patients, Use of regional language, linguistics in communication process, Counseling and education.

References:


NUTRITION IN CRITICAL CARE

Course Code: HSDF4ET07

Teaching hours: 5hrs/week

Credit: 4

Objectives:

To understand the physiology, metabolism and special nutritional requirements of the critically ill.

Be familiar with the special nutritional support techniques and feeding formulations to meet their nutritional needs.

Course Outline:

Module 1: Nutritional screening and nutritional assessment of critically ill.

Module 2: Nutritional support system and other life saving measures for the critically ill.
Module 3: Role of immuno enhancers, conditionally essential nutrients, immuno suppressants and special diets in critically care.

Module 4: Pathophysiological, clinical and metabolic aspects, understanding of the special nutritional requirements, nutritional goals and monitoring the therapy in critically illness like stress, trauma, sepsis, burns, CV complications and surgery, ESRD, dialysis, transplant multiple organ failure, GI tract surgery, GER (Gastro oesophageal reflux) and complications, Hepatic failure and transplants, Neurosurgery.

Module 5: Complications of Nutritional support systems including Refeeding Syndrome.

Module 6: Rehabilitation diets-Stages

Module 7: Diet related ethical issues in terminally ill.

References


NUTRITION IN EMERGENCIES AND DISASTERS

Course Code: HSDF4ET08

Teaching hours: 5hrs/week

Credit: 4

Objectives:

- To familiarize the students with various natural and manmade emergencies and disasters having an impact on nutrition and health status.
- To understand the special nutritional concerns out of these situations.
- To understand strategies for nutritional rehabilitation management of the health of emergency affected populations.

Course Outline

Module 1: Natural/Manmade disasters resulting in emergency situations.
Famine, drought, flood, earthquake, cyclone, war, civil and political emergencies. Factors giving rise to emergency situations in these disasters. Illustration using case studies from Indian subcontinent.

**Module 2: Nutritional problems in emergencies in vulnerable groups**

Causes of malnutrition in emergency situations. Major deficiency disease during emergencies. Protein Energy Malnutrition, specific deficiencies

**Module 3: Communicable disease: Surveillance and treatment**

Control of communicable disease in emergencies. Role of immunization and sanitation.

**Module 4: Assessment and surveillance of Nutritional status in emergency affected population.**

Scope of assessment of malnutrition in emergency affected populations.

Indicators of malnutrition, Clinical signs for screening acute malnutrition.


**Modul 5: Nutritional Relief and Rehabilitation**

Assessment of food needs in emergency situations, food distribution strategy. Identifying and reaching the vulnerable group. Targeting Food aid, Mass and Supplementary feeding, Therapeutic feeding, Special foods, Local foods in rehabilitation. Organisation of mass feeding, general food distribution, Feeding Centres, Transportation and food storage, Sanitation and Hygiene, Evaluation of feeding programmes, Household food security and nutrition in emergencies.

**Modul 6: Public Nutrition approaches to tackle nutritional problems in emergencies.**

**References:**

- Bradley, A., Woodruff and Arabella Duffield (2000), Assessment of Nutritional Status in Emergency affected populations- Adolescents, special supplement UN ACC/SCN sub-committee on nutrition.
- The Management of Nutrition in Major Emergencies. WHO in collaboration with UNHCR, International federation of Redcross and Redcrescent societies and WFP.
- FAO (1997), FAOís emergency Activities, Rome, FAO.
• Steve Collins and Arabella Duffield (2000) Assessment of Nutritional status in Emergency affected populations-Adults, Special supplement, UNACC/SCN.Sub-committee on Nutrition.

SENSORY EVALUATION

Course Code:  HSDF4ET09

Teaching hours: 5hrs/week

Credit: 4

Objectives:

To provide adequate theoretical background and understanding about sensory evaluation of food.

Enable students to use various sensory methods for evaluating variety of food.

Enable students to analyse and interpret sensory evaluation data.

Course Outline:

Module 1: Introduction to sensory analysis and uses of sensory tests.

Module 2: Neural networks in sensory perception.

Module 3: General testing conditions.

Module 4: Selection of tests subjects and training of panel.

Module 5: Types of tests.

Discrimination /difference tests, triangle tests and duo-trio test ;tests for multiple sample, difference from control/reference.Qualitative difference tests.:Ranking, numerical scoring test ,magnitude estimation.Descriptive tests :Ranking for sensory profile, consensual profiling ,conventional profiling, free choice profiling ,Threshold tests.,Acceptance test:monadic ,paired and sequential monadic

Module 6: Descriptive analysis ,concept alignment and selection of terms.

Module 7: Designing of questionnaire and /or evaluation score card.

Module 8: Experimental design and data analysis.

Module 9: Statistical applications and interpretations.

Module 10: Consumer acceptability using sensory evaluation.
**Related Experience:**

1. Establishing sensory panels: Selecting and recruiting panelists, orienting, screening for trained panels, training panelists, monitoring performance. Recognition tests for four basic tastes, dour and aroma. Tests with other senses. Threshold tests.


3. Planning a Sensory Experiment: 1. Designing the questionnaire and score card 2. Identifying descriptions.


5. Conducting the test

6. Collecting and analyzing sensory data, statistical analysis, interpretations.


**References**

MODEL QUESTIONS

HSDF1CT01  NUTRITION AND DIET IN HEALTH

Time: 3Hours  Maximum: 30 Weightage

PART A
I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Link between nutrition and health
2. RDA
3. Toxemia
4. Growth monitoring
5. Food habits of pre-school children
6. Faulty food habits among adolescents
7. Adolescent pregnancy
8. Food guide pyramid

(5x1=5 weightage)

PART B
II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. Discuss the relationship between nutrition and work efficiency
10. What is weaning? How to wean the baby?
11. What are the principles of meal planning?
12. Write the physiology of milk production
13. Plan a day's diet for pregnant woman from a low income group and discuss
14. Explain common nutritional problems during old age
15. Write a note on the physiological changes in adolescents
16. Discuss the factors affecting in deterring RDA

(5x2=10 weightage)

PART C
III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5
17. Give your comments on Breast feeding Vs Bottle feeding?
18. Describe the feeding problems and complications of pregnancy
19. Discuss the main causes of LBW Babies?
20. How does nutrition affect healthy growth and development of school going children?
   What are the visible signs?
22. Discuss nutritional requirement for a lactating mother, plan a diet for her.
23. Write in detail on the ICMR food groups and their nutrients

(3x5=15 weightage)
HSDF1CT02

APPLIED HUMAN PHYSIOLOGY

Time: 3hrs  Maximum: 30 Weightage

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What do you mean by cardiac cycle?
2. Define Mean Corpuscular Haemoglobin Concentration (MCHC).
3. What are the functions of plasma proteins?
4. Discuss adaptation of biliary response to diet.
5. What is enterohepatic circulation?
6. Write a note on lifestyle factors and bone health.
7. What do you mean by nutritional rickets?
8. List the functions of spleen.  (5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Bring out the relationship between diet and blood pressure.
10. Discuss the pathogenesis of cardiovascular disease.
11. Elucidate the digestion of proteins.
12. Write a note on thyroid gland.
13. Discuss the structure of a neuron.
14. Write a note on cell mediated immunity
15. Explain the structure and function of liver.
16. Bring out the relation between micronutrient status and immunity. (5x2=10 weightage)
PART ìC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the anatomy and physiology of the respiratory system and regulation of respiration.

18. Discuss the role of the pituitary gland as the master gland of the endocrine system.

19. Explain the process of urine formation and renal function tests.

20. Explain in detail the structure of the central nervous system.

21. Discuss dietary components and their effect on plasma lipids.

22. Write an essay on the immune system.  

(3x5=15 weightage)

HSDF1CT03

FOOD FACILITIES LAYOUT AND EQUIPMENT

Time: 3hrs  
Maximum: 30 Weightage

PART ì A

IAnswer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Briefly write on workers area of reach?

2. Square kitchen

3. Differentiate between applied finishes and mechanical finishes

4. Bring out difference between direct lighting and indirect lighting

5. Write a brief note on sous vide catering system

6. Define the term layout

7. Work triangle

8. Finishes used for equipment  

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss a few ways of waste disposal

10. What are the factors to be considered in planning ventilation of a food plant

11. Why do you think pest and rodent control is essential?

12. Write a note on commisory catering system
13. Discuss in detail about garbage disposal

14. List out the properties of aluminum & stainless steel. Give its advantages and disadvantages

15. Explain the features to be considered in kitchen designing. Draw sample layout plan for square shaped and u shaped kitchens

16. What alterations and suggestions would you make in the layout of production area in order to avoid staff fatigue? (5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.

17. Describe cook chill & cook freeze system.

18. Draw a floor plan for a hospital dietary kitchen serving 500 beds. Show the placement of equipment and work units. Justify

19. How can you overcome the factors causing fatigue to a food service personnel justify your answer?

20. Explain different types of food service system

21. Describe the factors to be considered for planning storage spaces and mention the different types of storage

22. Draw and explain about different types of kitchen plans (3x5=15 weightage)

HSDF1CT04

ADVANCED FOOD SCIENCE

Time: 3hrs Maximum: 30 Weightage

PART A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Syneresis.

2. Preparation of butter in short.

3. Different acids in vegetables and fruits.

4. Solvent Extraction

5. Breakfast cereals

6. Principles of food preservation

7. Hedonic rating test

8. Food irradiation. (5x1=5 weightage)
PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss enzymatic and non enzymatic browning?
10. What are the effects on pulses on processing?
11. Write about physical and chemical properties of milk?
12. Write a note on the selection and cooking of fish?
13. Explain milling and parboiling of rice?
14. Draw and explain the structure of an egg?
15. Explain the nutrient composition of pulses?
16. Write about the constituents of meats and shortly explain different meat cuts?!

(5x2=10 weightage)

PART C

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5

17. Write on post mortem changes of meat and tenderness.
18. Explain the process of canning?
19. What are the objectives of evaluation? Write the tests used for objective evaluation?
20. What are the changes occur in fat during storage and heating?
21. Explain in detail the changes occurring while cooking eggs?
22. Classify the methods of cooking and explain in detail;

(3x5=15 weightage)
5. Biliary Dyskinesia
6. CAPD
7. Protein energy malnutrition.
9. Types of dietitians

(5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. How fever is developed due to exogenous agents
10. Describe the recent concepts in dietary of peptic ulcer
11. Write the role of cholesterol in the development of CHD
12. Write the dietary modification of acute glomerulonephritis
13. Plan a day’s diet for a patient with hepatitis and discuss
14. Give the practical suggestions for reducing weight
15. Impact of Malnutrition on Pulmonary System,
16. Nutritional and non-nutritional Anemias,

(5x2=10 weightage)

PART C

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5
17. Bring out the nutritional importance of pre and post operative conditions
18. What is diarrhoea? Write the types and causes of diarrhoea? Why should dehydration be treated as early as possible
19. Describe the contributing factors in the development of TB, its signs and symptoms and dietary management
20. Discuss DM under the following heads ;-(a) Causes (b)Dietary management (c)Metabolic changes
21. What is acute renal failure? Explain the causes and dietary management
22. Discuss the causes and consequences of vitamin A deficiency?
BIOCHEMICAL CHANGES IN DISEASES

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Law of electron neutrality.
2. Reyes syndrome
3. Differentiate diverticulitis and diverticulosis
4. Lipotropic factors.
5. Diuretics
6. Biochemical changes in PEM
7. Buffer systems in the body

(5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Enumerate on drug and nutrient interactions?
10. Describe the factors associated with the development of Diabetes?
11. Mention the clinical changes in AIDS?
12. Explain pancreatic function test?
13. Explain the role of body electrolytes in the regulation of electrolyte balance?
14. Give an account of drugs acting on the digestive system?
15. Give an account of disorders pf liver and gall bladder?
16. What are the fundamental concepts of basic pharmacology?

(5x2=10 weightage)
PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Elimination diet.
2. Phenylketonuria.
3. Osteopenia.
5. Thermostabilised foods.
6. Antioxidants in the prevention of cancer.
7. Alzheimerís disease.
8. Ketogenic diet. (5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Mention the physiological stress experienced during space travel?
10. Give an account of the relationship between malnutrition and AIDS?
11. Enumerate on the risk factors associated with the development of osteoporosis?
12. Give the guidelines for oral feeding during anticancer therapy?
13. Give the etiologies in the development of dental caries?
14. Mention the nutritional measures adopted during emergencies?
15. Brief on the principles of nutritional care for intellectual disabilities?
16. Give an account of genetic disorders associated with carbohydrate metabolism? (5x2=10 weightage)

PART ñC

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.

17. Discuss neurological disorders under the following headings- a) types b)etiology c) nutritional management.
18. What are the disorders of musculo skeletal system? Brief on the nutritional management of rheumatoid arthritis?
19. Discuss the nutritional recommendations during space travel?
20. What are the different types of food allergies? Mention the role of diet in preventing food allergies?

21. Brief on the dietary measures to be adopted to prevent oral and dental disorders?

22. Discuss the role of food in cancer prevention?

HSFN2CT09

RESEARCH METHODS AND STATISTICS

Maximum: 30 Weightage Time: 3 hrs

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define intervening variables

2. What are partition values? Give the different partition values

3. Define a standard normal distribution

4. What is standard error?

5. What is a scatter diagram?

6. Write on the types of questionnaires?

7. What is sampling error?

8. Pictograph

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Distinguish between absolute and relative measures of dispersion

10. Briefly explain the types of research

11. Differentiate between interview and observation

12. Explain the advantages and limitations of questionnaires as a research tool.

13. Calculate the correlation coefficient from the following data sheet:

\[ \begin{align*}
N X &= 444 & N Y &= 443 & N X^2 &= 19806 & N Y^2 &= 20065 & N XY &= 19711 & n = 10
\end{align*} \]

14. Define variable and discuss the types of variables

15. What are the properties of normal distribution?

16. The following data was obtained in an investigation about the effect of vaccination for hepatitis. Examine whether vaccination is effective in preventing hepatitis.
### Vaccinated vs Not Vaccinated

<table>
<thead>
<tr>
<th>Attacked by hepatitis</th>
<th>Vaccinated</th>
<th>Not Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Not attacked by hepatitis</td>
<td>8</td>
<td>5</td>
</tr>
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(5x2 = 10 weightage)

**PART III**

### III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Define Interview. Construct an interview schedule on any relevant topic based on your interest.

18. The BMI of people follows a normal distribution with mean 20 and standard deviation 3. Find probability that a person selected at random is having BMI

   - e) Between 16 and 23
   - b) Above 25
   - c) Below 20

19. Define sample. Briefly explain different types of sampling.

20. Discuss briefly on any two tools used in research.

21. Compare the merits and demerits of mean, median and mode.

22. The following are the marks of 10 students before and after training. Test whether the training is effective.

   **Mark before training:** 91 95 81 83 76 88 89 97 88 92
   **Mark after training:** 89 101 85 88 81 92 92 99 97 87

   (3x5 = 15 weightage)

**HSDF2CP10**

### DIETETICS PRACTICALS

**Time:** 3Hrs  
**Weight:** 15

1. Diagnose the disease/health problem using the following clinical data and give the principles of dietary management for the identified problem.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Observed values</th>
<th>Particulars</th>
<th>Observed values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age(yrs)</td>
<td>60</td>
<td>Triglycerides(mg/dl)</td>
<td>182</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>Total Bilirubin(mg/dl)</td>
<td></td>
</tr>
</tbody>
</table>

*M.Sc. Programme in Home Science Mahatma Gandhi University*
<table>
<thead>
<tr>
<th>Physical Activity</th>
<th>Moderate</th>
<th>SGOT(U/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height(cm)</td>
<td>172</td>
<td>SGPT(U/L)</td>
</tr>
<tr>
<td>Weight(Kg)</td>
<td>70</td>
<td>S.Creatinine(mg/dl)</td>
</tr>
<tr>
<td>MUAC</td>
<td></td>
<td>BUN(mg/dl)</td>
</tr>
<tr>
<td>WHR</td>
<td></td>
<td>FBS(mg/dl)</td>
</tr>
<tr>
<td>B.P(mmHg)</td>
<td>90/160</td>
<td>RBS(mg/dl)</td>
</tr>
<tr>
<td>Hb(mg/dl)</td>
<td>14.5</td>
<td>Ascites</td>
</tr>
<tr>
<td>T.Cholesterol(mg/dl)</td>
<td>189</td>
<td></td>
</tr>
<tr>
<td>HDL(mg/dl)</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>LDL(mg/dl)</td>
<td>110</td>
<td></td>
</tr>
</tbody>
</table>

2. Plan a dayís menu for an adult man suffering from Hepatitis.

3. Prepare lunch/dinner specially suited to the above condition and substantiate its appropriateness

4. Calculate the nutrients of the prepared meal.

5. Prepare a counseling plan for the above condition.

HSDF3CT11

FOOD SERVICE MANAGEMENT

Time: 3hrs  Maximum: 30 Weightage

PART ñ A

IAnswer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Organizing?
2. What is BEP?
3. Delegation?
4. What do you mean by production planning?
5. What are records for control?
6. What is supervision?
7. Forecasting?
8. Work productivity?

(5x1=5 weightage)
PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

8. What are leadership qualities?
9. Write about the principles of an organization.
10. Explain what is BEA?
11. Write about communication in an FSO.
12. Write a note on records used in FSO?
13. What do you mean by centralization and decentralization?
14. Draw the organization chart of a five star food service organization.
15. What is authority and responsibility? Write their differences also?

(5x2=10 weightage)

PART III

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

16. Elaborately discuss different tools of management?
17. What do you mean by budgetary and non budgetary control? Explain?
18. Write about different types of organization.
19. Explain in detail various sales promotion techniques?
20. Directing is an important managerial function. Justify your answer.
21. What do you meant by evaluation in an FSO?

(3x5=15 weightage)

HSDF3CT12

QUANTITY FOOD PREPARATION AND FOOD SERVICE TECHNIQUES

Time: 3hrs  Maximum: 30  Weightage:

PART ñ A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What do you mean by hospitality industry?
2. Inventory control.
3. What are the objectives of food production?
4. How will you compensate fuel shortage in the future?
5. What is food cost control?
6. Write a note on the different storage facilities that are available in a hotel?

7. What do you mean by production control?

8. Explain the factors affecting menu planning? \( (5 \times 1 = 5 \text{ weightage}) \)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss HACCP.

10. What is a budget and its importance in FSI?

11. Note on different store records.

12. Methods of food production.

13. Write about the service and control measures of non alcoholic beverages.

14. Requirements and requisites of storage area.

15. Classification of hotels.

16. How portion control can be exercised in an FSE? \( (5 \times 2 = 10 \text{ weightage}) \)

PART ñC

III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.

17. Write different types of food services.

18. Note on the scope and objectives of Hospitality industry.

19. Discuss different service equipments and service management.

20. Preparation (in short), service and control measures of alcoholic beverages.

21. Write a note on receiving and storage of food items in an FSO.

22. What are fuels? Give classification in detail. \( (3 \times 5 = 15 \text{ weightage}) \)
HSDF3CT13

HOSPITALITY ADMINISTRATION

Time- 3 hours  Maximum- 30 weightage

Part- A

I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Substantiate the statement ëthe growth of tourism in a country is vital for hospitality industryí.
2. Describe the first aid for burns and scalds.
3. Classify different types of linen and its management in hotels
4. Write short notes on ëManningí and ëJob descriptioní and ëJob specificationí
5. Define an ecofriendly hotel highlighting its special features
6. Give an account on electronic front office and its benefits
7. What are the check in and check out procedures?
8. What do you mean by room rates and tariff structures?

(5 x 1 = 5 weightage)

Part ëB

IV. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Elaborate on the classification of hotels and other hospitality institutions.
10. Draw the layout of linen room and state the requisites of a good linen storage
11. Explain the different types of gardens both indoor and outdoor suitable for
12. institutions

13. Draw a maidís trolley and list out its contents
14. Write the procedure of guest room cleaning and staff protocol to be followed therein
15. Describe the qualities and etiquettes of front office staff
16. Explain the table layout for a banquet with appropriate figures. Suggest suitable flower arrangements for the same.
17. Suggest measure adopted for fire prevention

(5 x 2 = 10 weightage)

Part ëC

V. Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

18. Describe with the help of an illustration the layout of front office department and explain the duties of front office staff.
19. Elucidate on the various training programmes provided to staff in hospitality industry mentioning the purpose of each.
20. Elaborate on appropriate Waste Management techniques to be adopted in hospitality institutions
21. What are the different window dressings suitable for restaurants and food service areas? Give supportive figures
22. Explain the procedure and principles of cleaning guest rooms and service areas.
23. What is book keeping? Enlist the records to be maintained in front office and housekeeping departments

(3 x 5 = 15 weightage)

HSDF3CT14 SCIENTIFIC WRITING AND PROJECT MANAGEMENT
Maximum: 30 Weightage
Time: 3 hrs

PART A
I Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Objectivity in research.
2. Budgeting a project.
3. Executive summary.
4. Importance of bibliography.
5. Pilot study.
6. Importance of setting a time frame.
7. Presentation of a project proposal.
8. Foot notes.

(5x1=5 weightage)

PART B
II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. What are the objectives of classification of data?
10. Explain the parts of a table.
11. What are the important points to be mentioned while writing the introduction of a dissertation?
12. Explain the importance of the graphical presentation of data. Briefly mention its limitations.
13. How do you write a review article?
14. What is the significance of reviewing the literature?
15. Briefly explain the principles of report writing.
16. What are the general rules of tabulation?

(5x2=10 weightage)

PART C
III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain the following, citing their advantages, limitations and areas of application
   (a) Bar diagram (b) Pie graph
18. Choose a research topic related to your field of study and write a research proposal for securing a university grant.
20. What are the salient points to be borne in mind while writing research articles for journals?
21. What are the points to be borne in mind while explaining the results of a study and discussing it.
22. Briefly explain how to formulate outlines. Add a note on the kinds of outlines while reporting a research finding.

(3x5=15 weightage)

HSDF4ET01

PUBLIC HEALTH NUTRITION

Time: 3hrs Maximum: 30 Weightage

PART A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1
1. Write a note on nutrition security.
2. Discuss aetiology of fluorosis.
3. Write a note on Iodine Deficiency disorders.
4. Discuss consequences of Iron Deficiency anaemia.
5. What is food fortification?
6. Write a note on zinc deficiency.
7. Discuss relation between infection and immunity.
8. What are vital health statistics? (5x1=5 weightage)

PART B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.
9. Discuss in detail 24 hr dietary recall method.
10. Elucidate the principles of effective nutrition education.
11. List functions of the NFHS.
12. Discuss treatment of Protein Energy Malnutrition.
13. Discuss the National Nutrition Anemia Control Programme.
14. What are the indirect methods of assessment of nutritional status?
15. What is nutrition epidemiology?
16. Discuss the nutrition transition in India. (5x2=10 weightage)
PART ûC

III. Answer any THREE questions not exceeding three pages. Each question carries a weightage of 5.

17. Explain in detail the National Nutrition Policy.

18. Write an essay on prevalence, aetiology, consequences and treatment of Iron Deficiency anaemia in India


20. Discuss in detail technical considerations and impact of food fortification.

21. Write an essay on the dual burden of malnutrition in India.

22. Write an essay on research methods in Public Health Nutrition.

(3x5=15 weightage)

HSDF4ET 02 FOOD MICROBIOLOGY AND SANITATION
Time: 3hrs Maximum: 30 Weightage:

PART û A

1. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. What is a bacteriophage?

2. Write about the reproductive structures of fungus.

3. Draw and explain the structure of an yeast cell.

4. HACCP

5. Asepsis

6. Personal Hygiene.

7. Blanching?

8. Botulism?

(5x1=5 weightage)

PART-B

II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. Discuss the spoilage of vegetables and fruits.

10. Explain the growth curve of bacteria.


12. What are the principal causes of egg spoilage?

13. How we can detect the changes in spoilt fish?

14. What do you mean by canning?
15. Write in short the methods used to denature bacterial cells?
16. Discuss different ways of food spoilage?

**PART III**

**III. Answer any THREE questions not exceeding three pages Each question carries a weightage of 5.**

12. Draw and explain virus reproduction in detail.
13. Write in detail the spoilage of meat and meat products?
14. What are the principles and methods of food preservation?
15. Write in detail the spoilage of meat and meat products?
16. Write in brief the contamination and spoilage of egg, fish and poultry?
17. What are foods born illnesses? Explain in detail.

HSDF4ETO3

**NUTRITION FOR SPORTS AND FITNESS**

**Time:** 3 hrs

Max: 30

**Part A**

I. Answer any 5 questions not exceeding one page. Each question carries a weightage of 1.

1. Neuro transmitters in weight management
2. Motivational strategies for fitness.
3. Body Mass Index classification
4. Nutritional ergogenics
5. Carbohydrate loading
6. Sports anemia
7. Fluid requirements of athletes.
8. Lifestyle modification strategies

(5x1=5weightage)

**Part B**

II. Answer any five questions, not exceeding two pages. Each question carries a weightage of 2.

9. Outline the measures to assess performance and physical fitness
10. Discuss carbohydrates with special reference to sports performance.
12. Discuss weight imbalance with regard to overweight and leanness.
13. Explain fluid and electrolyte loss and replacement in exercise.
14. Elaborate on physiology of weight loss
15. What are the methods to assess body composition?

(5x2=10 weightage)

Part C

III. Answer any 3 questions not exceeding 3 pages. Each question carries a weightage of 5.

17. Elaborate on nutritional requirements during sports events. Add a note on pre game and post game regime.
18. Critically compare various dietary regimes for weight reduction
19. Discuss dietary guidelines appropriate to health and fitness with special reference to obesity and cardiovascular health.
20. Elaborate on measures of performance and physical fitness.
21. Discuss physiological aspects of sports nutrition.

(3x5=15 weightage)

HSDF4ET04

ENTREPRENEURSHIP MANAGEMENT

Maximum: 30 Weightage

PART- A

I. Answer any FIVE questions, not exceeding one page. Each question carries a weightage of 1

1. Define entrepreneurship and its importance.
2. What is Joint Stock Company?
3. Explain balance sheet.
4. What is auditing?
5. What is salesmanship?
6. What are the benefits of self employment?
7. Explain the importance of advertising.
8. What are the objectives of KITCO?

(5x1 = 5 weightage)
PART ñB
II. Answer any FIVE questions not exceeding two pages. Each question carries a weightage of 2.

9. What are the problems faced by small scale industries? Write a note on its remedies.
10. What are the accounting methods?
11. Explain the procedure for registration of a business.
12. Explain any 5 types of enterprises.
13. Explain the contents of a project proposal.
14. What are the important documents of companies?
15. What are the factors affecting the entrepreneurís skill?
16. What are the objectives of modern business?

(5x2 = 10 weightage)

PART ñC
Answer any three questions not exceeding three pages. Each question carries a weightage of 5.

17. What is marketing? What are the different types of marketing techniques? Explain its merits and demerits.
18. Explain the concept of small scale industries. What are the steps in setting up a small scale industry?
19. Prepare a project proposal for starting a handicrafts unit in your locality.
20. Explain the objectives, functions, merits and demerits of any two agencies supporting entrepreneurship.
21. What are the factors affecting entrepreneurial growth?
22. What are the causes and remedies of unemployment in India?

(3x5 = 15 weightage)
APPENDIX

GRADING AND CONSOLIDATION DETAILS

DIRECT GRADING SYSTEM-5 Point Scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Performance</th>
<th>Grade Point (G)</th>
<th>Grade Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
<td>3.5 to 4.00</td>
</tr>
<tr>
<td>B</td>
<td>Very Good</td>
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<td>2.5 to 3.49</td>
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<td>C</td>
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<tr>
<td>D</td>
<td>Average</td>
<td>1</td>
<td>0.5 to 1.49</td>
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<tr>
<td>E</td>
<td>Poor</td>
<td>0</td>
<td>0.00 to 0.49</td>
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Consolidation of Grades for Internal Evaluation:

If B,C,B and A grades are scored by a student for attendance, assignment, seminar and test paper respectively for a particular course, then her/ his CE grade for that course shall be consolidated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight (W)</th>
<th>Grade Awarded</th>
<th>Grade Point (G)</th>
<th>Weighted Grade Points (W x G)</th>
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<tbody>
<tr>
<td>Attendance</td>
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<td>3</td>
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<td>Test Paper</td>
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<td><strong>Total</strong></td>
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<td><strong>A</strong></td>
<td><strong>4</strong></td>
<td><strong>16</strong></td>
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</tbody>
</table>

Grade: Total Weighted Grade Points / total Weights= 16/6= 2.66 = Grade B

Consolidation of Grades for External (one Answer Paper ñ Theory)

The grade of a answer paper (ESE Practical) shall be consolidated by similar procedure discussed above by assigning weights for the various components (eg., Procedure, Experiment, Calculation, accuracy of the reported values, Presentation of results, Diagrams, etc.)
<table>
<thead>
<tr>
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<th>Qn. Nos.</th>
<th>Grade Awarded</th>
<th>Grade Point</th>
<th>Weightage</th>
<th>Weighted Grade Points</th>
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<td>-</td>
<td>-</td>
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<td>A</td>
<td>4</td>
<td>1</td>
<td>4</td>
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<td>3</td>
<td>5</td>
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<td></td>
<td>Total</td>
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</table>

Calculation: Overall grade of n answer paper = sum of weighted grade points / sum of the weightage
= 73/30 = 2.43 = Grade C
Cumulative grade point average (CGPA) with a 7-point Scale.

CGPA with a 7 point scale given below:

<table>
<thead>
<tr>
<th>CGPA</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>3.80 to 4.00</td>
<td>A+</td>
</tr>
<tr>
<td>3.50 to 3.79</td>
<td>A</td>
</tr>
<tr>
<td>3.00 to 3.49</td>
<td>B+</td>
</tr>
<tr>
<td>2.50 to 2.99</td>
<td>B</td>
</tr>
<tr>
<td>2.00 to 2.49</td>
<td>C+</td>
</tr>
<tr>
<td>1.50 to 1.99</td>
<td>C</td>
</tr>
<tr>
<td>1.00 to 1.49</td>
<td>D</td>
</tr>
<tr>
<td>1.00 to 1.49</td>
<td>D</td>
</tr>
</tbody>
</table>

For instance, if a student has registered for m courses of credits C1, C2, Cn in a semester and if she/he has scored credit points P1, P2, Pn respectively in these courses, then SGPA of the student in that semester is calculated using the formula.

\[
SGPA = \frac{(P1+P2+\cdots+Pn)}{(C1+C2+\cdots+Cn)}
\]

\[
CGPA = \frac{[(SGPA)1*S1+ (SGPA)2*S2+ (SGPA)3*S3+ (SGPA)4*S4]}{(S1+S2+S3+S4)}
\]

Where S1, S2, S3 and S4 are the total credits in semester1, semester2, semester3 and semester4

Consolidation of SGPA

SGPA is obtained by dividing the sum of credit points (P) obtained in a semester by the sum of credits (C) taken in that semester. After the successful completion of a semester. Semester Grade Point Average (SGPA) of a student in that semester shall be calculated using the formula given. Suppose the student has taken three courses each of 4 credits and two courses each of 2 credits in particular semester. After consolidating the Grades for each course as demonstrated above. SGPA has to be consolidated as shown below:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title of Course</th>
<th>Credits (C)</th>
<th>Grade Awarded</th>
<th>Grade Points (G)</th>
<th>Credit Points (P = C x G)</th>
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</thead>
<tbody>
<tr>
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<td>A</td>
<td>4</td>
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<tr>
<td>02</td>
<td>Ö Ö Ö</td>
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<td>8</td>
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<td><strong>16</strong></td>
<td><strong>46</strong></td>
<td><strong>46</strong></td>
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</table>

SGPA = TOTAL Credit Points / Total Credits = 46 / 16 = 2.87 = Grade B

**Consolidation of CGPA**

If the candidate is awarded two A grades, one B grade and one C grade for the four semesters and has 80 credits, the CGPA is calculated as follows:

<table>
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<th>Grade Point</th>
<th>Credit Point</th>
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<td>A*</td>
<td>B**</td>
<td></td>
<td>A*</td>
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<tr>
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<td>C</td>
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<td><strong>80</strong></td>
<td><strong>260</strong></td>
<td><strong>255</strong></td>
</tr>
</tbody>
</table>

CGPA = *Total credit points/ Total credits = 260/80=3.25 (which is between 3.00 and 3.49 in 7 point scale) The overall grade awarded is B+ **

**Total credit points / Total credits = 255/80= 3.18 (which is between 3.00 and 3.49 in 7 point scale) The overall grade awarded is B+**

*A: Courses with Practical; **B: Courses without Practical