2-YEAR NEP PG CURRICULUM

M.A. HOME SCIENCE PROGRAMME

SUBJECT CODE = HSC

FOR POSTGRADUATE COURSES UNDER RANCHI UNIVERSITY, RANCHI

Implemented w.e.f.
Academic Session 2025-26 Onwards

DEPARTMENT OF HOME SCIENCE

Ranchi University, Ranchi - 834 008 (Jharkhand)

Ref. No. : R.U.P.G.H/Sc – 74 Date : 14-6-2025

Members of Board of Studies of NEP Curriculum in Home Science for Two-Year Postgraduate Programme

To be implemented from 2025-26

14.06.2025

SI.No.	Name, Designation and Affiliation	Present as
1.	Dr.Kiran Kumari, Head, Univ. Department of Home Science, Ranchi University Ranchi	Chairperson
2.	Dr. Niva Bara, Professor, Birsa Agricultural University, Ranchi	External Member
3.	Dr. Mukta Prasad, Assistant Professor, YBN University, Ranchi	External Member
4.	Dr. Seema Dey, Associate Professor, Univ. Department of Home Science, Ranchi University Ranchi	Member
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6.	Dr. Manju Kumari, Associate Professor, Univ. Department of Home Science, Ranchi University Ranchi	Member
7.	Dr.Asha Kumari, Associate Professor, Univ. Department of Home Science, Ranchi University Ranchi	Member
8.	Dr.Shipra Kumari , Associate Professor, Univ. Department of Home Science, Ranchi University Ranchi	Member
9.	Dr.Prabha Nag, Assistant Professor, Univ. Department of Home Science, Ranchi University Ranchi	Member
10.	Dr. Renu Kumari, Associate Professor, Ranchi Women's College, Ranchi	Member
11.	Dr. Meenakshi Akhouri, HOD &Assistant Professor, Ranchi Women's College, Ranchi	Member
12.	Dr. Suniti Nayak, HOD &Assistant Professor, Marwari College, Ranchi	Member
13.	Dr. Asha E.M. Toppo, Assistant Professor, Marwari College, Ranchi	Member
14.	Dr.Usha Kumari, HOD &Assistant Professor, Sanjay Gandhi College Pandra, Ranchi	Member

Approval by the Members of the NEP Implementation and Monitoring Committee of Ranchi University, Ranchi

The prepared Curriculum of the Master's Degree has been approved by the NEP Implementation and Monitoring Committee of R.U., duly forwarded by the Head of the Department; it will be offered to the Students of the 1-year and 2-year Postgraduate Programme. It is implemented from the 1st Semester of the Academic Session 2025-26 and onwards.

10/9/25 10/9/25 10/9/2025

Anuradha Rani 10/09/25 10/9/25 10/9/25

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COURSE STRUCTURE FOR PG **'PG DIPLOMA/ COURSEWORK ONLY/ COURSEWORK WITH RESEARCH/ RESEARCH ONLY'**

Table 1: Credit Framework for Two-Year Postgraduate Programme [Total Credits = 80]

Academic Level	Level of Courses	Semester	Coursework Level 400	Coursework Level 500	Research Preparedness	Research thesis/ Project/ Patent	Total Credits
YEAR 1							
Level 6	**Coursework**	**I**	**4+4+4**	**4+4**	**---**	**---**	**20**
		II	**4+4+4**	**4+4**	**---**	**---**	**20**
YEAR 2:	**Exit Point: Having an Internship of 4 credits Exit allowed with PG Diploma Certificate**						
Level 6.5	**Coursework**	**III**	**---**	**4+4+4+4+4**	**---**	**---**	**20**
		IV	**---**	**4+4+4+4+4**	**---**	**---**	**20**
OR							
Level 6.5	**Coursework + Research**	**III**	**---**	**4+4+4+4+4**	**---**	**---**	**20**
		IV	**---**	**---**	**20**		**20**
OR							
Level 6.5	**Research**	**III**	**---**	**---**	**20**	**---**	**20**
		IV	**---**	**---**	**---**	**20**	**20**
Total credits of P.G. Programme = **80**							

Note: **Every student has to take any one Value-added course of 2-credits compulsorily in the 1st Semester of the PG programme**.

HIGHLIGHTS OF NEP PG CURRICULUM

CREDIT OF COURSES

The term 'credit' refers to the weightage given to a course, usually in terms of the number of instructional hours per week assigned to it. The workload relating to a course is measured in terms of credit hours. It determines the number of hours of instruction required per week over a semester (minimum 15 weeks).

a) One hour of teaching/ Lectures or two hours of laboratory /practical work will be assigned per class/interaction.
One credit for Theory = 15 Hours of Teaching
One credit for Practicum = 30 Hours of Practical work
One credit for Internship = 02 Weeks of Practical experience

b) For credit determination, instruction is divided into three major components:
Hours (L) – Classroom Hours of one hour duration.
Tutorials (T) – Special, elaborate instructions on specific topics of one hour duration
Practical (P) – Laboratory or field exercises in which the student has to do experiments or other practical work of a two-hour duration.

Internship – For the Exit option after 1st year of the 2-year P.G. Programme for the award of P.G. Diploma, Level 6.5, Students can either complete two 4-week internships worth 2 credits each or one 8-week internship for all 4 credits. This practical experience connects academic learning with real-world applications, offering valuable exposure to professional environments in their fields of study

PG CURRICULUM

1. The PG Curriculum will be either of 1-year duration for students who studied the four-year UG Programme (FYUGP) or a 2-year duration for students who studied a three-year UG programme from a CBCS/LOCF/FYUGP Curriculum.
2. There is a flexible mode in the PG programme offered to the students of Ranchi University, Ranchi. The total credit for any semester will be 20 credits.
3. **Two-year PG curriculum:** The First year of the PG curriculum offers coursework only. There will be 3 courses at level 400 and 2 courses at level 500 in the first and the second semesters of any 2-year PG programme.
4. **One-year PG curriculum:** The Courses in the 1-year PG programme and the second year of the 2-year PG programme are the same.
   a. **Course work only**: There will be 5 courses at level 500 of 4 credits each in every semester for the coursework offered in the programme.
   b. **Course work and Research**: There will be 5 courses at the level 500 bearing 4 credits each in the first semester of a 1-year PG or in the third semester of a 2-year PG. There will be Research work offered in the next semester for this mode offered in the programme. The eligibility for this mode is available in the NEP PG curriculum of Ranchi University, Ranchi.
   c. **Research work only**: The eligible student will be offered this mode to conduct extensive research under the supervision of a guide. Each semester will be equivalent to 20 credits. The selection of a candidate for the research mode will depend upon the eligibility of the student, availability of the guide and seat in the department/institution of Ranchi University, Ranchi.

PROMOTION CRITERIA

Two Years Post-graduation programme having coursework only:

i. Each course shall be of **100 marks** having two components: **30 marks for Sessional Internal Assessment (SIA), conducted by the Department/College and 70 marks for the End Semester University Examination (ESUE), conducted by the University**.
ii. The marks of SIA shall further break into, 20 for Internal Written Examinations, 05 for Assignment/ Project/Seminar presentation and 05 for attendance in the classroom lectures and other activities of the Department/College.

iii. The Requisite Marks obtained by a student in a particular subject will be the criteria for promotion to the next Semester.
iv. There shall be two written internal examinations, each of 1 hour duration and each of 20 marks, in a semester out of which the '**Better One out of Two**' shall be taken for computation of marks under SIA.
v. It is compulsory to pass the Mid-Semester examination. If someone fails in the Mid-Semester exam of a particular course, he/she has to retake both the Mid-Semester and End-Semester exams next year, regardless of how many marks he/she obtained in the End-Semester Examination.
vi. In case a student fails to secure pass marks in End Semester Examination, then he/she has to appear only in End Semester Examination of the following Sessions within the period of Upper Limit of Four Years and the Marks of Mid Semester will be carried for the preparation of result.
vii. Students' final marks and the result will be based on the marks obtained in Mid Semester and End Semester Examination taken together.
viii. The pass marks in the programme will be 45% of the total marks obtained in each Core/ Elective/ Other Courses offered.
ix. In absolute terms of marks obtained in a course, **a minimum of 28 marks is essential in the ESUE** and **a minimum of 17 marks is to be secured in the SIA** to clear the course. In other words, a student shall have to pass separately in the ESUE and in the SIA by securing the minimum marks prescribed here.
x. Every candidate seeking to appear in the ESUE shall be issued an Admit Card by the University. **No candidate will be permitted to appear in the examination without a valid admit card.**
xi. A candidate shall be permitted to proceed in next Semester (2nd, 3rd and 4th) **provided he/she has passed at least in 3 courses out of 5 courses** in the respective semester in theory and practical/ project courses taken together.
xii. A student will have to clear all his papers within a maximum of Four Years of duration to qualify for the degree.

However, it will be necessary to procure pass marks in each of the papers before completion of the programme.

VALUE-ADDED COURSES

1. The Value-added course will be of **2 credits** to be covered during the first semester.
2. There will be objective-type questions asked in the End Semester University Examination (ESUE).
3. There will be an OMR-based examination and the correct answer is to be marked by a black ballpoint pen only on the OMR sheet provided by the University.
4. For the **50 Marks Examination,** the student will be provided **two hours** to mark their responses.
5. Students are not allowed to choose or repeat courses already undergone at the undergraduate level in the proposed major and minor streams.
6. The performance in this course will not influence the SGPA or CGPA of the PG Programme where the student is registered to obtain the Master's Degree. However, it will be mandatory to secure minimum pass marks in the course before exit from the PG Programme.
7. If the student fails to secure the minimum pass marks in the Value-added course in the first semester, he may appear in the examination of the said course with the following batch of the next session.
8. The student may appear in the examination of the said course further if could not clear the course in the following attempt, subject to the date of validation of the Registration.

The existing Regulations of the PG Curriculum of Ranchi University, Ranchi, shall govern any matters not mentioned above.

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AIMS OF MASTER'S DEGREE PROGRAMME IN HOME SCIENCE

The aim of Master's degree programme in Home Science is intended to provide:

The Master's degree in Home Science aims to empower students with advanced, interdisciplinary knowledge and practical skills, integrating science, arts, and technology to enhance the quality of life for individuals, families, and communities. As per NEP 2020 the program focuses on research, entrepreneurship, professional competence, and sustainable community development. Broad Aims and Objectives of the Master's in Home Science Programme are to provide

Advanced Disciplinary Knowledge & Specialization: To provide in-depth knowledge in specialized areas such as Food and Nutrition, Human Development, Resource Management, Textiles and Apparel Design, and Extension Education.

Research Innovation & Analytical Skills: To develop capacity for conducting independent research, analyzing data, and applying scientific methodologies to solve real-world problems, culminating in a thesis or dissertation.

Entrepreneurship & Employability: To foster an entrepreneurial mindset by providing skills needed for innovation, incubation, and professional practice in areas like food processing, interior design, and garment manufacturing.

Community Development & Social Empowerment: To train professionals to implement community projects related to health, livelihood, gender mainstreaming, and sustainable development goals (SDGs).

Holistic Value-Based Education: To align with NEP 2020 by focusing on student-centric, outcome-based education that promotes critical thinking, ethical reasoning, and social responsibility.

Digital Integration and ICT: Enhancing digital literacy for application in research, data analysis, and professional communication.

Interdisciplinary Approach: Blending scientific principles with human sciences.

Lifelong Learning: Fostering the ability for continuous professional growth.

Community Engagement: Bridging academic knowledge with societal

Global Citizenship: Sensitizing learners to global standards while addressing local and national needs, aiming for improved quality of life The programme aims that students are capable of:

Professional Competence: Applying knowledge in diverse settings—family, community, and workplaces.

The curriculum covers the following domains aimed at addressing modern life challenges:

1. Nutrition and Dietetics: Improving community health through nutrition and food technology.
2. Human Development: Understanding child development, counseling, and family dynamics.
3. Family Resource Management: Efficient management of resources, consumerism, and interior design.
4. Textiles and Apparel Design: Technical understanding of clothing, textile science, and fashion.
   Extension and Communication: Developing skills for community outreach, NGO work, entrepreneurships and social change

PROGRAMME LEARNING OUTCOMES

The broad aims of Master's degree programme in Home Science are:

The learning outcomes of a Master's degree programme in Home Science are intended to provide students with advanced specialized knowledge, research competence, and practical, application-based skills to improve the quality of life for individuals, families, and communities. The programme aims to transform traditional domestic skills into scientific, professional, and entrepreneurial competencies across areas like nutrition, human development, textiles and apparel and resource management. Key intended learning outcomes include:

1. Advanced Specialized Knowledge

Deep Disciplinary Expertise: Mastery in specific areas such as Foods and Nutrition, Clothing and Textiles, Human Development, Family Resource Management, or Extension and Communication.

Interdisciplinary Understanding: Ability to integrate scientific, social, and technological aspects to solve problems related to home, family, and community management.

2. Research and Analytical Skills

Independent Research Capability: Designing, planning, and conducting research (dissertation/thesis), including data analysis in specialized home science fields.

Critical Thinking and Problem-Solving: Applying scientific principles to analyze and solve complex issues regarding nutrition, textiles, and family resources.

3. Professional and Entrepreneurial Skills

Employability: Equipping students with the skills required to take up professional roles in industries, NGOs, hospitals, or educational institutions.

Entrepreneurship: Fostering the ability to start independent ventures in areas like food service, textile and apparel, fashion design, or interior decoration.

4. Community Development and Extension Work

Empowerment of Vulnerable Groups: Developing strategies for empowering communities through education, health programs, and social awareness.

Project Planning and Implementation: Developing skills to plan, design, and manage community extension programmes aimed at sustainable livelihoods.

5. Practical and Personal Development

Application-Oriented Skills: Enhancing technical knowledge in areas like dietetics, fabric testing, and interior landscape design.

Soft Skills: Developing communication, leadership, and team management skills essential for working in professional environments.

In summary, the program provides transformative education that prepares individuals to serve organizations as researchers, educators, counsellors, social workers, and consultants

The Courses in One Year P.G. Programme and in the Second year of Two years P.G. Programme are Common.

Table 2: Semester-wise Course Code and Credit Points

Sem	Core, AE/ GE/ DC/ EC & Compulsory FC Courses				Examination Structure		
	Paper	Paper Code	Credit	Name of Paper	Mid Semester Evaluation (F.M.)	End Semester Evaluation (F.M.)	End Semester Practical/ Viva (F.M.)
I	Foundation Course	FCHSC121	4	Public Health Nutrition	30	70	----
	Core Course	CCHSC122	4	A. Dietetics OR B. Childhood and Adolescence OR C. Fashion Marketing and Merchandising	30	70	----
	Core Course	CCHSC123	4	Research Methodology in Home Science	30	70	----
	Core Course	CCHSC124	4	Indian Socioeconomic Development and Status of Women	30	70	----
	Practicals on Core	CPHSC125	4	Practical	----	----	100
II	Core Course	CCHSC221	4	Community Development	30	70	----
	Core Course	CCHSC222	4	Ecology and Environmental Management	30	70	----
	Core Course	CCHSC223	4	A. Nutrition for Health and Physical Fitness OR B. Adulthood and Aging OR C. Apparel Construction	30	70	----
	Core Course	CCHSC224	4	Fashion Design Concept	30	70	----
	Practicals on Core	CPHSC225	4	Practical	----	----	100
III	Core Course	CCHSC321	4	IKS: Ayurveda Health and Nutrition	30	70	----
	Skill Enhancement Course	ECHSC322	4	A. Institutional Management/ B. Techniques of Food Preservation	30	70	----
	Core Course	CCHSC323	4	A. Food Safety, Sanitation and Hygiene OR B. Interpersonal Relationship and Family Dynamics OR C. Textile Design and Illustration	30	70	----
	Core Course	CCHSC324	4	Principle of Interior Design	30	70	----
	Practicals on Core	CPHSC325	4	Practical	----	----	100

IV	Elective	ECHSC421	4	A. Nutritional Biochemistry & Microbiology and Genetics/ B. Gender, Society and Human Development/ C. Dyeing, Printing and Finishing of Textiles	30	70	----
	Elective	ECHSC422	4	A. Advanced Physiology/ B. Parenting in Early Childhood/ C. Pattern Making and Draping	30	70	----
	Core Course	CCHSC423	4	Entrepreneurship Development and Enterprise Management	30	70	----
	Practicals on Elective	EPHSC424	4	A. H.Sc. Practical A/ B. H.Sc. Practical B/ C. H.Sc. Practical C	----	----	100
	PROJECT	PRHSC425	4	Dissertation/ Project/ Teaching Aptitude	----	----	100

Note:

1. **Students have to select any one group from options A/B/C in Semester I as per their interest and will remain the same for other three semester. Any shift in group is not permitted once selected.**
2. **Every student has to take any one Value-added course of 2 credits compulsorily in the 1st Semester of the PG programme.**
3. **Either One Internship of 4 credits or Two Internships of 2 credits each is required before opting for the 'Exit' option after the first year of the P.G. Programme.**

INSTRUCTION TO QUESTION SETTER

SEMESTER INTERNAL EXAMINATION (SIE):

Marks Weightage of a Course: Each non-practical/non-project course shall be of **100 marks** having two components: **70 marks shall be assigned to the End Semester University Examination (ESUE), conducted by the University, and, 30 marks for Sessional Internal Assessment (SIA), conducted by the Department/College**.

The marks of SIA shall further be divided into 20 for Internal Written Examinations, 05 for Assignment/Project/Seminar presentation, and 05 for attendance at classroom lectures and other activities of the Department/College. There shall be two written internal examinations, each of 1-hour duration and each of 20 marks, in a semester, out of which the **'Better One out of Two'** shall be taken for computation of marks under SIA.

In absolute terms of marks obtained in a course, **a minimum of 28 marks is essential in the ESUE and a minimum of 17 marks is to be secured in the SIA to clear the course**. In other words, a student shall have to pass separately in the ESUE and in the SIA by securing the minimum marks prescribed here.

A. (SIE 20+5+5=30 marks):

There will be a uniform pattern of questions for mid-semester examinations in all the courses and across all the programmes. There will be **two** groups of questions in 20-mark written examinations. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type five** questions of five marks each, out of which any three are to be answered. Department may conduct Sessional Internal Examinations in other format as per needs of the course.

The Semester Internal Examination shall have three components. (a) One Semester Internal Assessment Test (SIA) of 20 Marks, (b) Assignment/Project/ Seminar Presentation of 5 marks (c) Class Attendance Score (CAS) of 5 marks.

Conversion of Attendance into score may be as follows:

Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks.

END SEMESTER UNIVERSITY EXAMINATION (ESUE):

A. (ESUE 70 marks):

There will be a uniform pattern of questions for all the courses and all the programmes. There will be **two** groups of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short-answer type** consisting of five questions of 1 mark each. **Question No.2 will be a short-answer type** of 5 marks. **Group B will contain descriptive type six** questions of fifteen marks each, out of which any four are to be answered. The questions will be so framed that examinee could answer them within the stipulated time.

[**Note:** There may be subdivisions in each question asked in Theory Examinations]

B. (ESUE 100 marks):

Practical/ Project courses would also be of 100 marks but there **shall be no internal written examinations** of the type specified above. The total 100 marks will have two components: **70 marks for the practical ESUE and 20 marks for the Viva-voce examination** conducted during the ESUE to assess the applied and practical understanding of the student.

The written component of the project (**Project Report**) shall be of **70 marks and 20 marks will be for the Viva-voce examination** jointly conducted by an external examiner, appointed by the University, and the internal supervisor/ guide.

10 marks will be assigned on the cumulative assessment of the examinee during the semester and will be awarded by the department/faculty concerned.

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FORMAT OF QUESTION PAPER FOR MID/ END SEMESTER EXAMINATIONS

Question format for **20 Marks**:

Subject/ Code

F.M. =20 **Time**=1Hr. Exam Year

General Instructions:

i. **Group A** carries very short answer type compulsory questions.
ii. **Answer 1 out of 2** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

Group A

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....
2. ..... [5]

Group B

3. ..... [10]
4. ..... [10]

Note: There may be subdivisions in each question asked in Theory Examination.

Question format for **70 Marks**:

Subject/ Code

F.M. =70 **Time**=3HrS. Exam Year

General Instructions:

i. **Group A** carries very short answer type compulsory questions.
ii. **Answer 4 out of 6** subjective/ descriptive questions given in **Group B**.
iii. Answer in your own words as far as practicable.
iv. Answer all sub parts of a question at one place.
v. Numbers in right indicate full marks of the question.

Group A

1. [5x1=5]
   i. .....
   ii. .....
   iii. .....
   iv. .....
   v. .....
2. ..... [5]

Group B

3. ..... [15]
4. ..... [15]
5. ..... [15]
6. ..... [15]
7. ..... [15]
8. ..... [15]

Note: There may be subdivisions in each question asked in Theory Examination.

SEMESTER I

I. FOUNDATION COURSE [FCHSC121]
PUBLIC HEALTH NUTRITION

Marks: 30 (MSE: 20 Th. 1Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE :28) = 45

(Credits: Theory-04, 60 Hours)

Course description

The focus of this course is to examine the role of the dietician/nutritionist in identifying health and nutrition problems and integrating nutritional services with medical and social services within the community. This course will also provide basic knowledge and skills relevant to the practice of community nutrition, the concept of community, the role of nutrition in health promotion and perspectives for resolving community nutrition problems, Needs for assessment issues and national and state community nutrition programs, determinants of health outcomes, measurement of nutrition and health status, food and nutrition policy, legislative issues and management of community programs

Learning Objectives:

1. To know the basics of public health nutrition
2. To understand the need of prioritizing nutrition issues
3. To assess the nutritional and Health Status of an individual and the community.
4. To learn nutritional programmes and policies to overcome malnutrition
5. To understand various national and International nutritional organizations for combating malnutrition
6. To apply ICT in the formulation of community nutrition education programme

Learning Outcomes:

1. Finally, the concepts and knowledge required for the delivery of community nutrition services will be applied to program planning, intervention and program evaluation
2. Gaining knowledge on nutritional programmes and policies overcoming malnutrition
3. Understanding the national, international and voluntary nutritional organizations to combat malnutrition
4. Able to organize community nutrition education programme with the application of computers
5. Apply immunological intervention programmes to overcome epidemic of communicable diseases.

Course Content

Unit-I. Introduction to Public Health Nutrition and National Development (12 Lectures)

Meaning and Scope of Public Health Nutrition. Roles and responsibilities of public health nutritionists.

Definitions of optimum health, malnutrition (undernutrition, overweight, obesity, micronutrient deficiency), nutritional status, nutrition intervention, food & nutrient supplements, nutrition education, morbidity, mortality rates.

Nutrition- A Global Developmental Priority, Importance of nutrition throughout the life cycle, Dual burden of malnutrition

Sustainable Development Goals (SDGs), 12 of the 17 Goals require good nutrition to be met Ecology Consequences and of Malnutrition,

Strategies to Overcome Malnutrition, Relation of nutrition to national development, Nutrition and food security.

Unit-II. Nutritional Assessment (12 Lectures)

Introduction, Definition of Nutritional Status, Objective and Classification of nutritional assessment Methods, Standard of Reference, Instruments and Measurement Techniques: Age Assessment, Weight, Linear Measurement/Height, Circumferences, Soft Tissue Subcutaneous Fat.

Various nutritional status assessment methods:

i. **Direct Nutritional Assessment parameters** (anthropometry, clinical signs and symptoms, and biochemical parameters), ecological parameters: environment, Food prices, and indirect parameters – Socio economic status, Mortality and Morbidity rates

a. **Anthropometric measurements**

Techniques commonly used in public health (weight for age, weight for height, height for age & BMI for age), Comparison of indices with references

The new WHO growth standards, its use and implications and classification to define mild, moderate & severe forms of malnutrition

New WHO growth standards for Adolescents, implications of introducing new standards in school health program)

b. **Clinical Examination**
Nutrient deficiency- signs & symptoms
Grouping of Signs.

c. **Biochemical Estimation**
Name of assessment of parameters, Reference value/Desirable Level of nutrients and their Metabolites in body tissues Lipids & Lipoproteins (TG. LDL and HDL cholesterol and their ratios) Carbohydrates (blood and urinary glucose)
Protein (serum protein, albumin, NEAA/EAA ratio, hydroxyproline index, urea/creatinine ratio, etc.)
Iron (Hb, HcT, serum iron, transferrin, ferritin)
Vitamin A (serum retinol, carotene)
Vitamin D (serum alkaline phosphatase, calcium and phosphorous)
B-complex vitamins, including Folic acid & Vitamin B12 (urinary excretion)
Vitamin C (serum ascorbic acid, whole blood ascorbic acid)
Iodine (T3, T4, urinary excretion)
Sodium, potassium, chloride and Fluoride
TB Test, HIV Test CD4 counts

i. **Indirect Nutritional assessment-**
Dietary Survey and Types of Nutritional Survey
Dietary intakes methods and understanding their usage and limitations in different field situations: 24-hour diet recall methods, Food frequency method, Weighed food inventory, food diaries and food consumption methods
Rapid assessment methods for dietary intake
Dietary Diversity Score for Household, Individual, women and children.
Vital Statistics, Age Specific Mortality Rate, Morbidity and Cause of Specific Mortality.

Unit-III. Social & Behaviour Change Communication (12 Lectures)
Concepts, components and process of communication for nutrition health promotion, Definitions of Formal-non-formal communication, Participatory communication Components of BCC (Sender, Message, Channel, Receiver)
Steps for developing a successful Social and Behavior change communication program
Evaluating and re-planning, Training workers in nutrition education programmes
Methods of education when to teach, whom to teach
Use of computers to impart nutrition education
Organization of Nutrition education programmes

Unit-IV. National, International and Voluntary Organizations to Combat Malnutrition (12 Lectures)
Role of Nutrition in Achieving Global Targets

Optimal Infant and Young Child Feeding -Significance of the first 1000 days of life, Improving maternal, infant and young child nutrition – WHO Global Targets 2025
Nutrition Intervention programmes in India- Integrated Child Development Services (ICDS): ICDS Mission Mode, Role of AWW, Supplementary Nutrition, Balbhog, Sakhibhog, Shishubhog
Mid-Day Meal (MDM) program

Fortification program
National Programs to Combat Micronutrient Malnutrition
Prophylaxis Program (VAPP)- Iron: National Nutritional Anemia Control Program, Nutritional Program for Control of Anemia among Adolescent Girls, National Iron Plus Initiative (NIPI), Vitamin A,
Iodine -National lodine Deficiency Disorders Control Program (NIDDCP), Universal Salt Iodization (USI), Double Fortified Salt (DFS)
Diarrhea Control Program: Role of Zinc, ORS and National Deworming Campaign, Fluorosis Control Program

Organizations Working towards Meeting Global Nutrition Targets
National organization-ICAR, ICMR, CSWB, SSWB, NNMB, NIN, CFTRI, DFRL, NIPCCD and NFI, Save the Children, Tata Trusts
International Organizations – World Bank, World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), World Food Programme (WFP), Bill and Melinda Gates Foundation
Voluntary organizations- Global Alliance for Improved Nutrition (GAIN) Initiatives, CARE, CRS, AFPRO, IDA, World Alliance for Breastfeeding Action (WARAJ)

Unit-V. Epidemiology of Communicable Diseases (12 Lectures)
Definition, causes, signs and symptoms, treatment and prevention of comedies,
Respiratory infections and intestinal infection, Other infections dengue, Flu

Types of immunity active, passive and herd group protection
Immunization agents- vaccines, immunoglobulin
Immunization schedules National and Expanded Programme on Immunization (EPI)- Universal, Passive, Combined, Chemoprophylaxis, non-specific measures.

Recommended Readings:

1. Park A. (2007), Park's Textbook of Preventive and Social Medicine XIX Edition M/S Banarasidas, Bharat Publishers, 1167, Prem Nagar, Jabalpur. 428 001 (India)
2. Bamji M.S. Prahlad Rao N. Reddy V (2004) Textbook of Human Nutrition It Edition, Orfied and PBH Publishing Co. Pvt. Ltd, New Delhi
3. Bhatt D.P (2005), Health Education, Khel Sahitya Kendra, New Delhi
4. Gibney MJ, Margets BM, Kearney JM, Arab L (2004) Public Health Nutrition Blackwell Publishing Co UK
5. Swaminathan M (2007), Essentials of Food and Nutrition. An Advanced Textbook Vol 1, The Bangalore Printing and Publishing Co. Ltd, Bangalore
6. National Nutrition Mission-ICDS icds-wed.nic.in
7. Field guide to designing communication strategy, WHO publication-2007
8. Communication for Development (C4D) Capability Development Framework, UNICEF and 3D Change. 2009

II. CORE COURSE [CCHSC122A]
DIETETICS

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course prepares the students to use advanced knowledge about food and nutrition for prevention as well as treatment of diseases and also maintain human health. Dietetics focuses on food management through proper planning, preparation, monitoring, implementation and supervision of a patient's modified diet and to develop basic counselling skills as dietitian

Learning Objectives

1. Understand the role of dietitian and to maintain good nutritional status, correct deficiencies or disease conditions of the patients
2. Gain knowledge on the principles of diet therapy and designing or formulating different therapeutic diets for various disease conditions
3. Develop skill to plan and prepare therapeutic dicts for prevention of disease conditions
4. Diet therapy may include prescribing specialized dietary regimes or meal plans. As entrepreneur

Learning Outcomes:

1. Integrate knowledge of research principles and methods associated with nutrition and dietetics practice.
2. Collect, organize and assess data relating to the health and nutritional status of individuals, groups and Populations
3. Demonstrate initiative and judgment using a professional, ethical and entrepreneurial approach
4. Advocating for excellence in nutrition and dietetics 4. Independently plan and execute a research project in regard to nutrition and dietetics practice.

Course Content

Unit-1. Concepts in Diet Therapy (12 Lectures)

Growth and Scope of Dietetics
Purposes and Principles of Therapeutic Diets Modifications of Normal Diets Classification of the Therapeutic Diets, Role of Dietitians Characteristics of Dieticians,
Hospital Dietary Food Service, Diet Counseling, Team Approach to Nutritional Care, Principles of Food Prescription, Indian Dietetic Association,
Computer Assisted Instructions (CAI) – Diet Planning using computers, Use of Technology in diet counseling.

Unit-II: Medical Nutrition Therapy in Obesity, Underweight and Diabetes Mellitus (12 Lectures)

Etiology, Pathophysiology, Clinical symptoms, metabolic alterations, Assessment/Indicators,
Lifestyle & Dietary guidelines for the following conditions
Obesity (Bariatric Surgery types, Management), Underweight
Diabetes Mellitus (Acute and Chronic Complications of Diabetes
Diet Modifications, Use of Food Exchange Lists, Insulin-Types and Use, Oral Hypoglycemic Agents, Carbohydrate counting, Glycemic Index, Glycemic Load)

Unit-III. Medical Nutrition Therapy in Gastro Intestinal Disorders and Diseases of the Liver (12 Lectures)

Etiology, Pathophysiology, Clinical Symptoms, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions: Diarrhea, Dysentery, Constipation and Peptic Ulcer
Jaundice Hepatitis Fatty Liver Cirrhosis Hepatic Coma

Unit-IV: Medical Nutrition Therapy in Diseases of the Cardio Vascular System and Kidney Diseases (12 Lectures)

Etiology, Pathophysiology, Clinical Symptoms, Lifestyle & Dietary guidelines for the following Conditions
Atherosclerosis, Hyperlipidemia, Ischemic Heart Disease, Congestive Heart Failure, Bypass Surgery
Hypertension (DASH Diets) Nephrotic Syndrome Nephrolithiasis Acute and Chronic Renal Failure Dialysis
Principles and Types of Kidney Stones

Unit-V: Medical Nutrition Therapy for Fever, Food Allergy and Cancer Febrile Conditions (12 Lectures)

Acute and chronic infectious disease-Typhoid, Tuberculosis and HIV and AIDS Guidelines for management of tuberculosis and infectious diseases. (12 Lectures)
Food Allergy Definition, Causes, Science and Symptoms, Types of Allergies, Diagnosis.
Dietary Modifications
Gluten sensitivity and Lactose intolerance
Cancer: Etiology, Metabolic alterations, Types of Cancer, Dietary Recommendation for Cancer Survivors.
Nutritional therapy for Cancer

Recommended Readings:

1. Srilakshmi, B. Dietetics, New Age International P. Ltd. New Delhi, 2018.
2. Dietary Guidelines of Indians A Manual, National Institute of Nutrition, Hyderabad, 2015
3. Garg, M. Diet. Nutrition and Health, ABD Publishers, 2006
4. Krause, MV and Mahan, L.K. Food, Nutrition and Diet Therapy, 9th Ed., W.B. Saunders Company. Philadelphia. 2019
5. Maimun Nisha, Diet Planning for Diseases, Kalpaz Publishers, 2016.
6. Dietary Guidelines of Indians – A Manual, National Institute of Nutrition, Hyderabad, 2011
7. Brown, J (2014). Nutrition now (7hed). Wadsworth, USA, ISBN 13:978-1-133-93653-4, ISBN 10:1-133-93653-9
8. Nelms M. Sucher K (2015). Nutrition Therapy and Pathophysiology (3 edition) Cengage Learning, USA ISBN-13: 978-1305111967, ISBN-10: 130511196n, New Delhi

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OR CORE COURSE [CCHSC122B]

CHILDHOOD AND ADOLESCENCE

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course introduces students to child and adolescent development. It explains basic developmental principles and psychosocial factors which influence development from conception till 18 years. It further explores the influence of a range of issues from birth through age 18.

Learning Objectives

1. Develop an understanding about the need and importance of studying child and adolescent development
2. Develop an understanding about the historical views and theories on childhood and adolescent development
3. Learn about the characteristics, needs and developmental tasks of infancy, carly middle and late childhood, and early, middle and late adolescence
4. Learn about the biological and environmental factors that affect development during childhood and adolescence
5. Learn key issues which influence childhood and adolescent development.

Learning Outcomes

1. Explain the need and importance of studying childhood and adolescence as a distinctive stage of the life-span
2. Describe the characteristics, needs and developmental tasks of infancy, early childhood, middle childhood and early and late adolescence.
3. Identify the biological and environmental factors affecting development during childhood and adolescence
4. Analyse key issues that influence child and adolescent development

Course Content:

UNIT-I Childhood and Adolescent Development: Introduction (12 Lectures)

Concept, meaning and principles of growth and development"
Concept of critical periods of development during infancy, childhood and adolescence

UNIT-II Historical Foundations and Theories of Childhood and Adolescent Development Historical foundations and scientific beginnings (12 Lectures)

Brief overview of theories of child and adolescent development maturational, behavioral, psychosocial, cognitive, social learning.
Brief overview of theories of child and adolescent development including the maturational, behavioral, psychosocial, cognitive, social learning, ecological, and sociocultural, perspectives

UNIT-III Development across Childhood and Adolescence (12 Lectures)

Major characteristics of different stages of childhood and adolescence (infancy, early, middle and late childhood, puberty, early and late adolescence)
What are developmental tasks and milestones, and their importance
With reference to each domain of development (physical, cognitive, language, socio-emotional) characteristics, needs, developmental tasks and milestones of individuals from birth to 18 years are explained

a) Neonate (birth-1 month)
b) Infancy (1 month-2 years)
c) Early childhood (2-6 years)
d) Middle childhood (6-11 years)
e) Adolescence (12-18 years)

UNIT-IV Familial and Social Influences on Childhood and Adolescent Development (12 Lectures)

Family influences on child and adolescent development
Influence of various parenting styles on development, behavior and functioning during childhood and adolescence
Changes in self-esteem, self- concept and identity from early childhood through adolescence
Moral development from early childhood to late adolescence in relation to societal norms and social understanding
Development of gender roles and perceptions, changes in gender identity from early childhood through adolescence

UNIT-V Childhood and Adolescent Development: Key Issues (12 Lectures)

Influence of peer relationships on development
Impact of media and its influences on development and learning
Physical, psychological and social effects of substance abuse and risk behaviors Role of nutrition in childhood and adolescent development

Brief overview of aggression, gender roles and stereotypes, androgyny, friendship, popularity and rejection, sibling relations, juvenile delinquency, suicide, depression, elopement, puberty. Early/late maturation, human sexuality, eating disorders during childhood and adolescence

Recommended Readings:

1. Bhogle, S. (1999) Gender roles: The construct in the Indian context. In TS. Saraswathi (Ed.), Culture socialization and human development Theory, research and applications in India (p.p.278-300). New Delhi: Sage
2. Kapadia, S. (2017) Adolescence in Urban India: Cultural Construction in a Society in Transition. Springer 4 Keenan, T. Evans, S. & Crowley, K (2016) An introduction to child development. Sage
3. Kumar, K. (1993) Study of childhood and family In TS Saraswathi & B. Kaur (Eds). Human development and family studies in India: Anagenda for research and policy. (pp.67-76). New Delhi: Sage
4. Santrock. J (2017) A topical approach to life span development (9th ed.). New NY Megraw-Hill Higher Education
5. Saraswathi, TS., & Kaur B. (1993). Human Development and family Studies in India- an Agenda for research and Policy New Delhi. Sage
6. Saraswathi, T. & Oke, Meera (2013). Ecology of Adolescence in India. Psychological Studies. DOI 58. 10.1007/s12646-013-0225-7
7. Saraswathi, TS., Menon, S., & Madan, A. (eds.) (2018) Childhoods in India Traditions, Trends and Transformations. New Delhi. Routledge
8. Sinha, D., & Misra, R.C. (1999). Socialization and cognitive functioning. In TS. Saraswathi (Ed.), Culture, socialization and human development: Theory, research and applications in India (pp.167-187). New Delhi: Sage

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OR CORE COURSE [CCHSC122C]

FASHION MARKETING AND MERCHANDISING

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course introduces students to the business aspects of fashion with a focus on fashion marketing and merchandising. It focuses on learning to capture the attention, of potential customers and promoting required products and services to them. It deals with how to understand, predict, and respond to consumer wants and behaviour to maximize business sales and revenue.

Learning Objectives:

1. Determine how business of fashion identifies its target market and adapts to deliver the desired satisfactions to the ultimate customer
2. Learns the product/merchandise presentation to potential customers
3. Understand the buying and selling of goods for the purpose of making a profit

Learning Outcomes:

Successful completion of this course will enable students to

1. Explain how fashion marketing and merchandising can help the fashion industry 2 Define role and responsibilities of fashion marketers and fashion merchandisers
2. Identify target markets and build consumer profiles for fashion products
3. Select promotional tool suitable for potential customers. 5. Develop a promotional plan and promote a merchandise
4. Establish and use inventory control systems

Course Content

Unit-1. Understanding the Basic Concepts of Fashion Marketing and Merchandising (12 Lectures)

Fashion business terminologies
Nature and scope of fashion marketing and merchandising
The marketing environment macro and micro
Areas of fashion marketing and merchandising. Public relations, brand management, event planning, customer relations, social media, advertising, retail buying, store management,
Fashion buying, visual merchandising, retail sales management
Profiles of occupations in fashion marketing and merchandising

Unit-II. Researching the Fashion Market and Consumer (12 Lectures)

The fashion consumer and organizational buyer
Segmentation and the marketing mix
Fashion marketing research: identifying the needs and wants of target customer

Unit-III. Fashion Marketing Communication (12 Lectures)

Promotion tools for fashion marketing advertising, sales promotion, packaging, public relations and publicity
Onsite Promotion: visual merchandising framework and approaches

Unit-IV. Merchandise Management Types of Merchandise (12 Lectures)

Six rights of merchandising and their importance
Merchandise planning, acquisition, handling and monitoring
Supply chain management, Inventory Control systems, Financial accounting

Unit-V. Future Trends in Buying and Merchandising (12 Lectures)

The changing impact of IT on fashion retailing, The impact of new manufacturing techniques
The fashion buyers of the future, The fashion merchandiser of the future
Future technologies impacts on the consumer, Other types of fashion retail competition

Recommended Readings:

1. Bliss, L. L. (1995) Study Guide Visual Merchandising and Display 3d ed. Fairchild Publications.
2. Blythe, J. (2006), Principles and Practice of Marketing, Thomson, London.
3. Easey M. (2009), Fashion Marketing, 3d ed. United Kingdom: Blackwell Publishing
4. Elaine, S. (2013) The Dynamics of Fashion. 4th ed. New York: Bloomsbury publication
5. Kotler, P and Gary, A. (2001) Principles of Marketing. 9th ed. Upper Saddle River, N.J.. Prentice Hall
6. Wolfe, M. (2009) Fashion Marketing & Merchandising, 3 ed. United States: Goodheart Willcox Publishing
7. https://www.slideshare.net/kotharivr/fashion-merchandising-ebook

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III. CORE COURSE [CCHSC123]
RESEARCH METHODOLOGY IN HOME SCIENCE

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course provides a comprehensive introduction to the fundamentals of research methodology, equipping students with the knowledge and skills necessary to design, conduct, and interpret research across various disciplines. It covers essential topics from defining research problems and selecting appropriate designs to data collection, analysis, and ethical considerations.

Learning Objectives

The main objective of this course is to introduce the basic concepts in research methodology in Social science. This course addresses the issues inherent in selecting a research problem and discuss the techniques and tools to be employed in completing a research project. This will also enable the students to prepare report writing and framing Research proposals.

Learning Outcomes

1. Students who complete this course will be able to understand and comprehend the basics in research methodology and applying them in research/ project work. This course will help them to select an appropriate research design.
2. With the help of this course, students will be able to take up and implement a research project/ study.
3. The course will also enable them to collect the data, edit it properly and analyse it accordingly. Thus, it will facilitate students' prosperity in higher education.
4. The Students will develop skills in qualitative and quantitative data analysis and presentation.
5. Students will be able to demonstrate the ability to choose methods appropriate to research objectives.

Unit 1: Research- Meaning, purpose and approaches (15 Lectures)

Types of Research-Exploration, Description, Explanation,
Scientific method and research, Research Designs-Experimental and Observational
Quantitative and Qualitative approaches, Variables, concepts and measurement
Levels of measurement-nominal, ordinal, interval, ratio

Unit II: The Research Process (15 Lectures)

Defining the research problem, questions, objectives, formulation of hypotheses
Review of related literature and originality in writing, citations in research
Citation formats: in medical sciences, social sciences
Planning the research, Subjects context, Methodology and tools
Ethical issues in research -Plagiarism and how to avoid it, Intellectual property rights and copyright

Unit III: Sampling Method, Tools & Techniques (15 Lectures)

Role of sampling in research, Types of sampling
Data collection process: conducting interviews, FGDs, case studies
Research Tools and Techniques – Interviewing and observational methods, Formulation of questionnaire, interview schedule, observational method, its Validity and reliability

Unit IV: Classification and Tabulation of Data (15 Lectures)

Measures of central tendencies and variables, Graphical representation and interpretation of data

Recommended Readings

1. Kumar, R. (2005) Research Methodology: A Step by Step Guide for Beginners. Sag Publications, New Delhi.
2. Kerlinger F. N. and Lee, H. B. (2000) Foundations of Behavioural Research 4th Ed. Harcou College Publishers
3. Kothari, C. R. (2008) Research Methodology: Methods and Techniques 2nd Ed. New International Pvt Ltd, New Delhi.
4. Black, J.A. & Champion, D. J. (1976) Methods and Issues in Social Research. New York: J Wiley and Sons.
5. Research methods: The essential Knowledge Base, 2nd edition -william Trochins, James P. Donnelly, Kanika Arora. cengage Learning Publication, 2016, ISBN-13: 978-1133954774.
6. Research Design: qualitative, quantitative and mixed methods Approaches, 6th edition, John w. Creswell & J David creswell, Sage publications, 2022 ISBN-13: 978-1071817964.
7. Research methodology, Ramanaiah malla, Bondala Ramkrishna, Robbi Meeraja, Dharmana Lokanadham, 1st edition ISBN-13:978-81-964810-5-6.
8. सामाजिक शोध सिद्धांत एवं व्यवहार, डी. के. लाल दास, Rawat publication, 2017 ISBN 978-81-316-0858-6(HB)

IV. CORE COURSE [CCHSC124]
INDIAN SOCIOECONOMIC DEVELOPMENT AND STATUS OF WOMEN

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description-

This course examines the structure of the Indian economy and its socio-economic organization across rural, urban, and tribal areas, with a focus on inequality, poverty, and gender relations. It explores socio-economic changes since independence, including development policies, economic reforms, and key development indicators. The course highlights the status of women in India, addressing issues such as education, health, employment, and gender-based violence. It also reviews policies, programmes, and institutional mechanisms for women's empowerment, emphasizing social, legal, and political support systems and the role of governance in promoting gender equality.

Course Objectives-

1. To understand socio-economic structure, organization and problems of rural, urban and tribal areas.
2. To understand policy development and their impact.
3. To understand the effort needed for women empowerment. To know the support system in the country for Women empowerment

Learning Outcome-

After completing the course, students will be able to:

1. Explain the structural features of the Indian economy and socio-economic organization in different sectors.
2. Interpret key development indicators such as HDI, CPI, and poverty indices.
3. Analyze the changing status of women in India using socio-economic and health indicators.
4. Identify and critically discuss forms of violence and discrimination against women.
5. Assess the role of government policies, legal frameworks, and institutions in women's empowerment.
6. Demonstrate awareness of grassroots governance and community-based initiatives like Panchayati Raj and self-help groups.

Course Content

Unit I - Indian economy- structure and organisation of rural, urban and tribal areas (10 Lectures)

Land ownership, occupational hierarchy, dependence on agriculture
Caste, Class and Institution,
Role and status of women
Poverty, inequality, unemployment, stagnation
Impact of industrialization on urban life, socioeconomic aspect of metropolitan life,

Unit II- Socio Economic changes since independence (10 Lectures)

Economic planning and achievement
Growth verses development, development index, PWLI, HDI, CPI ect.
Rural development- concepts, objectives, importance and historical overview
Tribal development strategies, policies and welfare
Women and development
New economic policy and its impact

Unit III- Present Status and Violence Against Women (15 Lectures)

Status- meaning, status of women, a situational analysis, demographic, education, employment, political and health (general, occupational and reproductive), changing scenario
Dowry, divorce, female feticide and infanticide, domestic violence, sexual harassment, portrayal of women in mass media, effort for elimination of all forms of discrimination

Unit IV- Policies and programmes for women's development (10 Lectures)

National policy for empowerment of women, policy perspectives, mainstreaming, a gender perspective in the development process, economic empowerment, poverty eradication, micro credit and self-help group, women and agriculture, women and industry, support system

Unit V Social Empowerment and Support system (15 Lectures)

Education, health, nutrition, drinking water and sanitation, housing and shelter, environment
Legal empowerment, legal literacy on personal and family laws, role of family court and legal aid canters
Political empowerment, role of panchayati raj.
Role and function of the Department of Women and Child Development, Central Social Welfare Board, State Social Welfare Board, National Commission for Women, Women's Development Corporation

Recommended Readings

1. Rao. R.K., Women and Education, Kalpaz Publications, New Delhi,
2. Hazara M L., Women Children and Poverty, Discovery publishing House, New Delhi
3. Vivian J. (1991), Media of Mass Communication,
4. Ravindran. R.K., (2000) Media and Development Area.

V. CORE COURSE [CPHSC125]
PRACTICAL

Marks: 30 (MSE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	Pass Marks = 45

(Credits: Practical-04, 120 Hours)

Objectives-

1. To acquire practical knowledge of preparation of research proposal, data gathering tools, conducting research and analyzing data.
2. To have practical knowledge of Food Science and Public well-being and Nutrition
3. To enable students about practical approach of Home Science Extension Education System and Communication.

SECTION I (Compulsory)

Unit 1 **20 hrs= 10 Classes**

1. Plan a research proposal with objective and hypothesis for a selected problem.
2. Select a size of sample using any one Sampling Technique
3. Construct a Questionnaire / Schedule for above selected problem as data gathering tool.
4. Collect data using any one of the following
    a. Interview
    b. Observation
5. Prepare a report of above project.

Unit 2 **20 hrs= 10 Classes**

1. Assessing the nutritional status of an individual, group and community in different settings
2. Conducting 3 Day Weighment Survey for an Individual
3. Planning and conducting nutrition education programmes in a selected village for 3 days
4. Spot observations based on the observations through field visits in ICDS centers, MDM school program

Unit 3 **20 hrs=10 Classes**

5. Preparation and Use of Audio-Visual Aids on women's related problems
6. Survey of NGOs such as KVK, KVIC, Gram Yuvak Kendras, Mahila Mandal
7. Investigation of felt needs of any beneficiary group and planning a program for them, execution and evaluation of the program.

SECTION II (Select any one group as per the theory group chosen)

A. DIETETICS **60 hrs=30 Classes**

1. Preparation of Hospital Diets- Modification of diet with respect to texture, consistency and nutrients
2. Modification of Diets in Obesity
3. Modification of Diets in Underweight
4. Modification of Diets in Diabetes Mellitus
5. Diets for Febrile Conditions – TB, Typhoid
6. Modification of Diets in Peptic Ulcer, Constipation and Diarrhoea
7. Modifications of Diets in Liver Diseases – Jaundice, Hepatitis and Cirrhosis
8. Diets for Nephritis, renal Failure and renal Calculi, Protein Restricted Diets
9. Diets for Cardiovascular diseases – Sodium Restricted, Fat Controlled
10. Modification of Diet for Cancer Patients and HIV Infected Person
11. An Overview/desk review on DASH diet, Mediterranean diet, Paleo diet, FODMAP diet, Keto diet VLCD etc.

OR

B. CHILDHOOD AND ADOLESCENCE **60 hrs= 30 Classes**

1. Preparation of an album on developmental milestones of children and adolescents.
2. Visit to a paediatric ward
3. Visit to an Anganwadi
4. Interaction with counsellors/clinical psychologists
5. Carry out a case study of an adolescent boy and girl using multiple methods
6. Select a topic related to a significant developmental problem or issue faced by children and adolescents and describe ways to assist them, their teachers and parents to deal with the problem.

OR

C. FASHION MARKETING AND MERCHANDISING 60 hrs= 30 Classes

1. Identify the marketplace and evaluate customers, as well as trends affecting future sales
2. Case studies to understand the buying procedures of various types of fashion retail businesses and also analyze the environment in which buying occurs.
3. Review trends, emerging and the growing retail formats where will consumers make purchases through literature and field visits
1. Describe your customers; identifying changes in consumer markets, understanding buying motives and learning about customers through data warehousing and data mining
2. Plotting customer profiles for various fashion businesses
3. Visual merchandising projects to be undertaken for different fashion businesses
4. Interact with Store managers to understand how they develop and prepare merchandise plan as well as a merchandise assortment for their business. What are their best practices?
5. Visit to various type of markets
6. Case study of fashion business to understand its supply chain management and inventory control systems

Recommended Readings

1. Park A. (2007), Park's Textbook of Preventive and Social Medicine XIX Edition M/S Banarasidas, Bharat Publishers, 1167, Prem Nagar, Jabalpur. 428 001 (India)
2. Bamji M.S. Prahlad Rao N. Reddy V (2004) Textbook of Human Nutrition It Edition, Orfied and PBH Publishing Co. Pvt. Ltd, New Delhi
3. Bhatt D.P (2005), Health Education, Khel Sahitya Kendra, New Delhi
4. Srilakshmi, B. *Dietetics, New* Age International P. Ltd., New Delhi, 2018.
5. 2. *Dietary Guidelines of Indians* – A Manual, National Institute of Nutrition, Hyderabad, 2015.
6. 3. Krause, M.V. and Mahan, L.K. *Food, Nutrition and Diet Therapy*, 9th Ed., W.B. Saunders Company,
7. Gibney MJ, Margets BM, Kearney JM, Arab L (2004) Public Health Nutrition Blackwell Publishing Co UK
8. Kumar, R. (2005) Research Methodology: A Step by Step Guide for Beginners. Sag Publications, New Delhi.
9. Kerlinger F. N. and Lee, H. B. (2000) Foundations of Behavioural Research 4th Ed. Harcou College Publishers
10. Kothari, C. R. (2008) Research Methodology: Methods and Techniques 2nd Ed. New International Pvt Ltd, New Delhi.
11. Black, J.A. & Champion, D. J. (1976) Methods and Issues in Social Research. New York: J Wiley and Sons.

SEMESTER II

I. CORE COURSE [CCHSC221]
COMMUNITY DEVELOPMENT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

Community development refers to the broad set of skills and institutions that local communities utilize in an effort to improve the quality of life for all residents. This Course examines the history of housing, economic trends and social policies that have affected the marginalized communities across the country and projects the organizing and capacity building measures that community development professionals and activists have sought to improve these conditions.

Learning Objectives

1. Understand the conceptual meaning of community development and community organization
2. Become aware of community development approaches
3. Study community organization modalities in various settings
4. Learn to evaluate community development programmes

Learning Outcomes

1. Distinguish community development from community organization
2. Comprehend significant phases in community development
3. Gain knowledge on sustainability and community development concepts
4. Envisage the role of community-based organizations in community development

Course Content

Unit-I. Concept of Community Development **(12 Lectures)**

Meaning and Definition of community development
Principles, Philosophy and Objectives
Elements of community development -Community development as a process, community development as a method, community development as a programme, community development as a movement
Rural development initiatives before independence and post-independence

Unit-II. Role of Community Based Organizations **(12 Lectures)**

Conceptual meaning and definition of community-based organizations
Role, structure and functions of community organizations
Models of community-based organizations
Approaches of community-based organizations

Unit-III. Phases of Community Development **(12 Lectures)**

Phases of community development – definition and needs
Seven Phases of community development: sequence and exclusive roles
- Relationship
- Assessment
- Discussion
- Organization
- Reflection
- Modification
- Continuation

Personnel involved in community development activities – qualities and role
National Extension Service – Role of student volunteers in community development

Unit-IV. Evaluation of community development programmes **(12 Lectures)**

Review of community development programmes
Evaluation methods
Analysis /merits and demerits
Community involvement and assay of Benefits
Incentives and Prizes/ Awards

Unit-V. Sustainability and Community Development **(12 Lectures)**

Concept of sustainable community development
SDGs – Sustainable Development Goals – concept
Significance of SDGs to community development
Need for sustainable community development
Sustainability in community development- aims, objectives and principles

References

1. Banta Sharma Nidaugmayum (2015). Community organization and social registration. New Delhi: Janada Prakashan
2. Indra Godara (2013). Committee and community organization. New Delhi: Black Prints Publishing
3. Kunal Bhatia (2012). Social Work and Community Development. New Delhi: Sonali publications
4. Reddy A.S.A (2001). Extension Education. Bapatla: Sree Lakshmi Press
5. Thomas William, A.J. (2015). Rural Development Concept and Recent approaches. New Delhi, RAWAT Publications

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II. CORE COURSE [CCHSC222]
ECOLOGY AND ENVIRONMENTAL MANAGEMENT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course covers basic environmental concepts, natural resources, ecosystems, and population impacts on sustainability. It addresses pollution, public health issues, waste management, and environmental policies, highlighting the role of institutions and gender perspectives in promoting a healthy environment

Course Objectives:

1. To be aware of the holistic ecological approaches to environment
2. To be aware of the environmental problem, hazards and risk.
3. to understand the aspect of the environmental pollution and waste management.
4. To be aware of the aspects of environmental policies, movement and ethics.

Learning Outcomes

After completing the course, students will be able to:

1. Explain the basic concepts of environment, natural resources, and sustainable development and describe the structure and functioning of ecosystems, including food chains and ecological balance.
2. Analyze the relationship between population growth, resource utilization, and environmental sustainability.
3. Identify sources, types, and effects of environmental pollution and suggest control measures.
4. Understand the link between environmental conditions and public health, including common diseases and waste management practices and evaluate environmental policies, legislation, and the role of institutions in environmental protection.

Course Content

Unit I- Fundamentals of environment **(10 Lectures)**

Environment, definition and scope of environmental studies
Life and the environment, Environmental hazards and risks
Natural resources
Conservation and sustainable development

Unit II- Eco system **(10 Lectures)**

Earth, Man and Environment
Eco system of world - Forest Ecology,
Pathways in ecosystem - Food Chain,
Factors affecting changes in ecosystem and environment

Unit III- Population and Environment **(10 Lectures)**

Carrying Capacity, Limits of population growth
Population Growth and Natural Resources
Land and water as resource and its use

Unit IV-Pollution and environment **(10 Lectures)**

With reference to air, water, soil
Source and effect of pollution,
Pollution control

Unit V- Environment and Public Health **(10 Lectures)**

Environmental pollution and community health
Water and air borne diseases
Effect of other harm full substance
Waste Management - Waste, types and Management - Solid waste management

Unit VI- Environment control measures **(10 Lectures)**

Environmental control legislation, policies and movement,
Human rights issues related to environment
Women and Environment
Role of Municipality, Government and Non-Governmental Agencies in promoting better health environment.

Recommended Reading

1. Basu R.N., (2000) Environment, University of Kolkata
2. Bhatia, H.S. (1998), A Textbook of Environmental Pollution and Control, New Delhi

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III. CORE COURSE [CCHSC223A]
NUTRITION FOR HEALTH AND PHYSICAL FITNESS

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

Integration and application of principles of sound nutrition and physical activities to optimize the physiological, psychological, and social lifelong development of the individual and use of scientific principles and current technological advances, helps to assess and evaluate physical fitness, body composition, dietary patterns, energy expenditure, and their interrelationships.

Course Objectives:

1. Understand the Importance of Nutrition, Fitness and Health. Gain Knowledge on Exercise Physiology and Nutrition for Physical Activity. Comprehend the Technique and Gadgets for Physical Activity Training
2. Understand the Risks of Hypokinetic Diseases. Understand the principles of Exercise and Stress Management

Learning Outcomes:

1. Upon completion, students will understand the principles of fitness and nutrition and their role in physical and psychological well-being. They will recognize social and cultural influences on lifestyle habits and be able to evaluate nutritional information in relation to health and fitness.

Course Content

Unit-I. Health and Fitness **(10 Lectures)**

Definition, Components and Relationship among Physical Fitness, Wellness and Health Personalized approach
Benefits of fitness training

Unit-II. Exercise Physiology and Nutrition for Physical Activity **(16 Lectures)**

Pulmonary, Cardiovascular Regulation and integration, Skeletal and neural control,
Endocrines and exercise Nutrition & Physical performance
Physical fitness: cardio respiratory fitness, muscular strength, muscular endurance, body composition and flexibility
Energy systems, muscles and physical performance-ATP-CP energy systems, Lactic Acid energy systems, Oxygen energy systems, Glycogen depletion, Endurance Training-Muscle and Muscle fibres
Optimal Nutrition and Energy needs for optimum performance e.g. athletes Exercise and fluid loss, Hydration, Nutrition supplements, Ergogenic Aids

Unit-III. Physical Activity Training **(12 Lectures)**

Aerobic and anaerobic training -To enhance Cardio Vascular Endurance,
Flexibility and Body Composition, Measurement of PAL,
Benefits of Fitness training and Gadgets for measuring PA –Motorized Treadmill, (aerobic Fitness),
Functional Trainer,
Fluid Rower (Upper body), Elliptical Bicycle and Bicycle Ergometer (Lower body), 3.10 Stretch Trainer (Whole body),
Multi Gym (9, 12, 16 station) for different muscle groups

Unit-IV. Diseases due to Faulty/Poor Food Habits and Physical Inactivity **(12 Lectures)**

Life Style related diseases/disorders (Non communicable Disease conditions) - Meaning Causative Factors and Diet Modification/evidence-based guidelines for
Underweight, Obesity,
Diabetes mellitus, Hypertension, Cancer
Cardiovascular Disease, Anaemia

Unit-V. Exercise, Stress and Health Management **(10 Lectures)**

Stress Assessment and Management
Techniques-Exercise at medium and high altitudes, Underweight, Overweight and Obesity, Relaxation Techniques,
Yoga and Meditation for Health, Clinical Exercise
Physiology for Cancer,
CV and Pulmonary rehabilitation

Recommended Readings

1. Werner W. K Hoejer (1989), *Life time Physical Fitness and Wellness*, Morton Publishing Company, Colorado.
2. Mishra, S. C (2005) *Physiology in Sports*. Sports Publication, New Delhi
3. Greenberg, S. J and Pargman, D (1989) *Physical Fitness – A Wellness Approach Prentice* Hall International (UK) Limited, London
4. Swaminathan M. (2008) *Essentials of Food and Nutrition* Bangalore Printing Publishing Co. New Delhi
5. McArdle, W. D, Frank I. Katch, F. I and Victor L. Katch (1996) *Exercise Nutrition: Energy Nutrition and Human Performance*. William & Wilkin Publishing USA.
6. Mahan, K and Stump, E. S (1996) Krause *Food and Nutrition and Diet Therapy* W.B Saunders Company, USA.

OR CORE COURSE [CCHSC223B]

ADULTHOOD AND AGING

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course introduces students to the concept of adult development and aging. It explains basic developmental transitions in adulthood and late adulthood or old age. Various facets of adult development across domains and developmental needs of the elderly are discussed Cultural and gender differences in the experiences of aging are included.

Course Objectives

1. Understand the theoretical significance of adulthood in life span development with special reference to aging
2. Develop a culturally relevant understanding of issues and concerns of adulthood and aging 3. Sensitize students to transitions in adult life and preparation for old age from a gender perspective
3. Create awareness about policy provisions for adults and elderly across various contexts (work, family.Retirement, health, welfare)
4. Prepare students for outreach activities with varied groups of adults and elderly

Learning Outcomes

1. Explain variations in the experiences of adulthood and old age across cultures and genders
2. Discuss factors that affect physical, cognitive and socio-emotional development during adulthood and old Age
3. Identify developmental needs of varied groups of adults and elderly across contexts
4. Execute developmental programs of intervention for varied groups of adults and elders

Course Content

Unit-1 Stages of Adult Development and the Process of Aging: A Theoretical Overview (10 Lectures)

Contemporary changes, increase in life expectancy and decrease in death rate Stages of Adulthood and Aging. Emerging adulthood (18-25), mature adulthood (25-45), middle age (45-55), late adulthood (55-65), old age (65 and above)

Characteristics and needs in different stages of adulthood

Theories of adult development and aging (Erikson's theory, Wisdom theories, Disengagement.

Activity, Ashrama Dharma framework)

Unit-II Development in Emerging and Early Adulthood (12 Lectures)

Definition, characteristics, developmental tasks

Physical Changes-Cardiovascular and Respiratory systems, Motor performance, Immune system Cognitive Development Changes in mental abilities Crystallized and fluid intelligence.

Information processing Speed, Attention, Memory. Problem solving and Creativity

Life transitions and adjustments during early adulthood: Exploring sexual orientations, stable romantic relationships, alternative life choices, marriage, family life, parenting and caregiving, social mobility

Cultural, gender and social class variations in the experience of adulthood and aging

Interpersonal relationships and responsibility challenges in different spheres of life (balancing work and family, socio-cultural responsibilities, health challenges, emotional stresses, financial security)

Unit-III Development in Middle and Late Adulthood (12 Lectures)

Definition, characteristics, developmental tasks,

Physical and cognitive changes, Changes in interests, Social, emotional, vocational changes, Relationships at midlife marriage and divorce, changing parent-child relationships, grandparenthood, siblings, friendships, relationship across generations- Middle aged children and their aging parents

Preparation for old age (From work to retirement, emotional, financial, social and familial transitions,)

Contextual variations in the experience of late adulthood and aging (rural-urban, socio-economic, employed-unemployed, organized-unorganized sector etc.)

Unit-IV Development in Old Age (14 Lectures)

The phenomenon of aging biological, psychological, sociological and functional age, optimal aging, normal aging, primary and secondary aging and successful aging

Gerontology-Definition, concept, importance and scope

Types – Social gerontology, Bio gerontology, Medical gerontology (Geriatric)

Theories of aging process Sociological, Psychological and Biological theories of aging.

Psychosocial development in old age,

Changing relationships in old age marriage and divorce, widowhood, never-married, childless older adults, siblings, friendships

Myths and realities of aging Adjustments – Physical and mental changes,

Vocational adjustments- adjustment to retirement, different living arrangements, familial roles and relationships Dealing with stressful life events, divorce, terminal illness, death and bereavement Overview of Alzheimer, Dementia, Parkinson's disease Common abuses among elderly-physical, emotional, psychological, verbal and financial, reporting abuse, Adult Protective Services
Policy provisions for the elderly: Global and national

Unit-V Aging and Well-Being in the 21" Century (12 Lectures)

Demographic profile of elderly in the world and India
Living arrangements (intergenerational families, old age homes, institutions etc.) and new models of care giving
Overcoming mental health challenges (loneliness, depression, anxiety, dementia, other age-related diseases etc)
Life style changes and holistic health (physical well-being, food choices, yoga and restorative fitness, counseling and therapy, social and interpersonal support systems)
Technology and aging (use of internet, advances in health and medical treatment, gadgets supporting safety and security of elderly)
Leisure time activities and innovative models of developmental intervention

Recommended Readings:

1. Arnett, J. J., & Jensen, L. A. (2019). Human Development: A cultural approach (3led.). New York: Pearson.
2. Cavanaugh, J., & Blanchard-Fields, F. (2011). Adult development and aging (7hed). Stamford, CT Cengage Learning
3. Kakar, S. (Ed.). (1993). Identity and adulthood. New Delhi: Oxford University Press.
4. Lamb, S. E. (Ed.). (2012). Aging and the Indian diaspora: Cosmopolitan families in India and abroad. New Delhi: Orient Blackswan.
5. Menon, U (2013). Women, well-being and ethics of domesticity in an Odia temple Town. New Delhi: Springer
6. Rajan, I S., Risseeuv, C., &Perar, M. (Eds.). (2008). Institutional provisions and care for the aged perspectives from Asia and Europe. New Delhi: Anthem Press.
7. Reddy, P.A., Devi, U., &Harinath, N. (2010). Ageing: The global phenomena issues and strategies. New Delhi: Sonali.
8. Sahoo, F M. (Ed.) (2009). Behavioral issues in ageing Care, concern and commitment. New Delhi Concept Publishers.
9. Sahu, C. (1988). Problems of aging among Indian tribes. New Delhi: Sarup & Sons.
10. Shankardass, M.K. (Ed.) . (2020). Ageing issues and responses in India. New Delhi: Springer
11. Soneja, S. (2001). Elder abuse in India. Report for the World Health Organization.
12. Srivastava, V (2010) Women and ageing. New Delhi Rawat Publisher
13. Tanner, D., & Harris, J (2007). Working with the older people. New York: Routlege publishers
14. Tomstram, L. (2005). Gerotranscendence: A developmental theory of positive aging. New York Springer

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OR CORE COURSE [CCHSC223C]

APPAREL CONSTRUCTION

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course introduces the basic principles of apparel construction including pattern and fabric selection. The course aims at developing skills in using knowledge of apparel construction required to be employed in the field of apparel industry and entrepreneurship. It deals with the tools and techniques required for apparel construction. It covers the pattern making and grading techniques required for making apparels. It gives hands on experience for apparel construction which is the pre requisite of apparel industry.

Course Objectives:

1. Learns the requirement for apparel construction
2. Understand the use, significance and selection of tools and equipment for apparel construction
3. Understand the coordination of fabric, pattern and supportive material.
4. Enhance the understanding of drafting and pattern making.
5. Acquire skills of apparel construction. Understand fit of the garment.

Learning Outcomes:

Successful completion of this course will enable students to

1. Know the requirements for apparel construction
2. Describe the use and significance of tools and equipment for apparel construction
3. Explain drafting and pattern making method.
4. Explore the skills of apparel construction
5. Adapt basic block to different designs. Evaluate fit of the garment

Course Content

Unit-I. Introduction to Apparel Construction **(12 Lectures)**

Elements of apparel construction

Grain, Seams, Finish, Workmanship Guides to sew fabrics, Threads, needles, seams and its co-relation to fabrics Uses of essentials tools and supplies; Sewing Needles, hand sewing tools, marking tools, measuring tools, cutting tools, pressing tools, threads, special tools, trims & tapes, buttons & closures.

Unit-II. Basics of Apparel Construction **(12 Lectures)**

Body measurements (BM): Principles of taking BM, Taking accurate body measurements.

Measuring from a garment. Size charts, Standard size charts for Kids, Men and Women

Ease allowance for various fit. Comparison of standard size charts from different countries and brands

Fabric Requirement: Calculation of fabric needed for various garments.

Optimising the fabric requirement, Principles and methods of grading and sizing

Unit-III. Pattern Making **(12 Lectures)**

Introduction to pattern making, Pattern making tools, Pattern making techniques: Drafting, Draping and Flat pattern technique, Darts and their manipulation, added fullness and contouring.

Principles of pattern making for: Upper garment, Lower garment, Sleeves, Collar, Dresses

Unit-IV. Fabric Layout, Cutting and Marking **(12 Lectures)**

Fabric preparation, Laying out checks, plaids & directional fabrics,

Marking with chalk, pencil or liquid markers, Cutting and sewing tips

Unit-V. Selection of Fabric and Accessories **(12 Lectures)**

Fabrics: Easy to stitch, special fabrics, textured and patterned fabrics Selection of appropriate fabrics for apparels.

Accessories and trimmings: types and use. Appropriate combination of accessories, trims and materials

Recommended Readings:

1. Aldrich, W. (1988). Metric Pattern Cutting. Unwin Hyman Ltd., London.
2. Amaden, C.& Crawford (1995) Fashion Your Own Skirts the Simple way Amaden-Crawford Associates, USA.
3. Armstrong, H. (2012). Patternmaking for Fashion Design Pearson Education, Inc, New Delhi.
4. Bray N., (1986) Dress Pattern Designing: The Basic Principles of cut and fit, Blackwell Publishing.
5. Hollen, N.R. &Kundel, C.J. (1993). Pattern Making by the Flat-Pattern Method. Prentice Hall, New Jersey.
6. Kopp, E., Rolfo, V. & Zelin, B. (1995). Designing Apparel through the Flat Pattern. Fairchild Publications New York.
7. Singer. (1989). Sewing Pants that Fit. Cowles Creative Publishing Inc. Minnesota, USA
8. Thomas, A. J. (1993). Art of Sewing. UBS Publishers Distributions Ltd. New Delhi
9. Zarapkar, K.R. (2008). Zarapkar System of Cutting. Navneet Publication (India) Ltd., Mumbai.

IV. CORE COURSE [CCHSC224]
FASHION DESIGN CONCEPT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course covers the basics of fashion, clothing, and garment design, including fashion trends, clothing functions, garment components, and design principles, with a focus on their role in personal and social expression.

Course Objective

The course aims to:

1. Provide basic knowledge of fashion terminology, trends, and influencing factors.
2. Develop understanding of the social, psychological, and functional aspects of clothing.
3. Familiarize students with garment components and construction techniques.
4. Introduce elements and principles of design in clothing.
5. Enable informed selection and evaluation of garments.

Learning Outcomes:

Upon successful completion of the course, students will be able to:

1. Explain key fashion concepts, cycles, and influencing factors.
2. Understand the role of clothing in personal expression and social context.
3. Identify and describe various garment components and their applications.
4. Apply basic design elements and principles in clothing selection and creation.
5. Evaluate ready-made garments based on quality, design, and suitability.

Course Content

Unit I: Fashion (16 Lectures)

1. Terminology
2. Fashion cycle
3. Sources of fashion
4. Factors favouring and retarding fashion
5. Role of a Designer
6. Leading Fashion centres and designers

Unit II: Importance of clothing (16 Lectures)

1. Clothing functions and theories of origin
2. Clothing terminology
3. Individuality and conformity, conspicuous consumption and emulation
4. Selection of clothes for self
5. Selection and Evaluation of ready-made garments

Unit III: Components of garment: classification and application (20 Lectures)

1. Fabric, seams, stitches, thread, shaping methods, dart equivalents
2. Sleeves, cuffs, necklines, collars, plackets, yokes, pockets and trims
3. Style variation: bodice, skirts, trousers in various silhouettes

Unit IV: Design (8 Lectures)

1. Elements and principles of design
2. Structural and applied design

Recommended Readings

1. Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
2. Marshall S G, Jackson H O, Stanley MS, Kefgen M &Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
3. Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.

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VI. CORE COURSE PRACTICAL [CPHSC225]

Marks: 30 (MSE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	Pass Marks = 45

(Credits: Practical-04, 120 Hours)

SECTION I (Compulsory)

Unit 1 **30 hrs=15 Classes**

1. Assessment of selected community development programmes
2. Visit to Award won Panchayats to understand their success story
3. Visit to villages to observe community activities
4. Prepare a document on community development activities in a model village
5. Preparation of plan of work
6. Organize community development programmes in a selected rural area
7. Follow up and evaluation of the programmes in progress

Unit 2 **10 hrs=5 Classes**

1. Study of awareness regarding environmental pollution.
2. Study of garbage disposal system of any area.

Unit 3 **20 hrs=10 Classes**

1. Flat sketching of garment components
2. Identification of garment components
3. Interpretation of elements and principles of design concepts from print and visual mediums
4. Study of collections of famous designers

SECTION II (Select any one group as per the theory group chosen)

A. NUTRITION FOR HEALTH AND PHYSICAL FITNESS **60 hrs=30 Classes**

1. Aerobic and Anaerobic Exercises
2. Relaxation Techniques,
3. Stress Assessment and Management
4. Yoga and Meditation
5. Visit to Fitness Centre: Observational report and 2 Case studies
6. Desk review of ergogenic aids available in the market
7. Use of non-invasive equipment's like Pedometer, pulse oximeter, step test, Omran's body composition analyser, home monitoring BP equipment to assess the nutritional status

OR

B. ADULTHOOD AND AGING **60 hrs=30 Classes**

1. Preparation of an album on developmental transitions, individual and family life transitions during adult life.
2. Visit to old age home or specialized living arrangements for elderly.
3. Visit to leisure facilities for elderly like laughing clubs, recreational clubs
4. Visiting your parents' workplace to understand their roles and responsibilities.
5. Documenting your mother's and grandmother's life aspirations and experiences before and after marriage.
6. Preparing a list of specialized services for the elderly in the city and / or preparing an elderly support kit (support with amenities, important phone numbers, medicines, reminders etc.)
7. Planning a hands-on workshop session for teaching internet and smart phone use to the elderly
8. Interviewing elderly couples about their relationship, life challenges and satisfactions
9. Planning a panel discussion or awareness session on welfare policies and policy recommendations for older persons in India
10. Discussing intergenerational relationships of emerging/young adults and parents as portrayed in cinema, advertisements and social media

OR

C. APPAREL CONSTRUCTION **60 hrs=30 Classes**

1. Development of basic block
    a) Upper and
    b) Lower
2. Drafting and construction of different types of
    a) Collars
    b) Plackets and
    c) Sleeves
3. Drafting and construction of
    a) Salwar
    b) Churidar
    c) Pant
4. Adaptation of basic block for designing of
    a) Frock
    b) Kurta
    c) Blouse
    d) Shirt
5. Construction of above designed patterns.
    a) Maintaining of journal with the details of the practical work in writing and supported with samples.

Recommended Readings

1. Banta Sharma Nidaugmayum (2015). Community organization and social registration. New Delhi: Janadaprakashan
2. Indra Godara (2013). Committee and community organization. New Delhi : Black prints publishing
3. Kunal Bhatia (2012). Social Work and Community Development. New Delhi: Sonali publications
4. Reddy A.S.A (2001). Extension Education. Bapatla :Sree Lakshmi Press
5. Thomas William, A.J. (2015). Rural Development Concept and Recent approaches. New Delhi, RAWAT publications.

SEMESTER III

I. CORE COURSE [CCHSC321]
IKS: AYURVEDA HEALTH AND NUTRITION

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description:
This course integrates the principles of Ayurveda with modern concepts of health and nutrition. It focuses on holistic well-being through diet, lifestyle, and preventive care. The course explores Ayurvedic concepts such as doshas, prakriti, and dietary principles, along with their application in health promotion, disease prevention, and therapeutic nutrition in contemporary contexts.

Course Objectives:
The course aims to:
1. Develop understanding of fundamental principles of Ayurveda in relation to health and nutrition.
2. Familiarize students with Ayurvedic concepts of body constitution, diet, and lifestyle.
3. Integrate traditional knowledge with modern nutritional science.
4. Promote preventive and therapeutic approaches to health through diet and lifestyle.
5. Enhance awareness of holistic and sustainable health practices.

Learning Outcomes :
After completing the course, students will be able to:
1. Explain basic concepts of Ayurveda and their relevance to health and nutrition.
2. Analyze individual constitution (prakriti) and its dietary implications.
3. Apply Ayurvedic dietary principles in planning balanced and therapeutic diets.
4. Evaluate the role of lifestyle practices in maintaining health and preventing diseases.
5. Integrate traditional and modern approaches for holistic health care.
6. Demonstrate critical thinking in the application of Ayurvedic nutrition in contemporary settings.

Course Content

Unit I: Fundamentals of Ayurveda **(12 Lectures)**
Introduction to Ayurveda: history, philosophy, and scope, Concepts of Panchamahabhuta (five elements)
Tridosha theory: Vata, Pitta, Kapha. Prakriti (body constitution) and its types
Concept of health and disease in Ayurveda

Unit II: Ayurvedic Nutrition Principles **(12 Lectures)**
Concept of Ahara (diet) in Ayurveda. Classification of foods: Satvik, Rajsik, Tamsik
Six tastes (Shad Rasa) and their importance. Agni (digestive fire) and metabolism
Dietary guidelines and eating practices

Unit III: Diet and Lifestyle in Health Promotion **(12 Lectures)**
Dinacharya (daily regimen) and Ritucharya (seasonal regimen)
Role of yoga, exercise, and mental health. Preventive health care in Ayurveda
Lifestyle disorders and their management through diet
Immunity (Ojas) and its enhancement

Unit IV: Therapeutic Nutrition in Ayurveda **(12 Lectures)**
Ayurvedic diet in common disorders (obesity, diabetes, digestive disorders)
Use of herbs and spices in nutrition. Detoxification and Panchakarma (basic concepts)
Functional foods and nutraceuticals in Ayurveda
Integration with modern therapeutic nutrition

Unit V: Contemporary Relevance and Applications **(12 Lectures)**
Ayurveda and public health. Sustainable diet and environmental perspectives
Role of Ayurveda in women and child health
Government initiatives and policies related to Ayurveda (AYUSH)
Research trends and evidence-based approaches in Ayurvedic nutrition

Recommendation Readings

1. Chunekar KC (ed.), Bhavaprakasa Nighantu of Bhavamisra, Chaukhambha Bharati Academy, Varanasi, 2004
2. Bhaishajya Kalpana Vijnanam by K Ramachandra Reddy
3. Sastry JLN, Dravyaguna Vijnana, Vol-1, Chaukhambha Orientalia, Varanasi, 2005.
4. Sastry JLN, Dravyaguna Vijnana, Vol-II, Chaukhambha Orientalia, Varanasi), 2005.
5. Sastry K (ed.), Caraka Samhita of Agnivesa with Cakrapanidatta Tika, Part I, Chaukhambha Sanskrit Sansthan, Varanasi, 1997
6. Sharma PV. History of medicine in India, Chowkhamba Orientalia Varanasi.
7. Murthy SRK, Astanga Hrdayam, Chowkhambakrishnadas academy, Varanasi; 2018.
8. Vaidyakiya Subhashitam by Bhaskara Govinda Ghanekar
9. History of Indian Medical Literature by Meulenbeld

II. SKILL ENHANCEMENT COURSE - A [ECHSC322A]
INSTITUTIONAL MANAGEMENT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course provides advanced knowledge of institutional management with special reference to Home Science-related institutions such as hospitals, hostels, schools, anganwadis, and community welfare organizations. It focuses on planning, organizing, staffing, and controlling institutional operations, along with resource management, leadership, and quality assurance.

Course Objectives:

The course aims to:

1. Develop understanding of institutional management principles in Home Science settings.
2. Equip students with skills in planning, organizing, and managing institutional resources.
3. Enhance knowledge of human resource management and leadership in service institutions.
4. Familiarize students with financial management, record keeping, and administrative procedures.
5. Promote awareness of quality assurance, governance, and welfare services.

Learning Outcomes:

After completing the course, students will be able to:

1. Explain concepts and functions of institutional management in Home Science contexts.
2. Apply managerial skills in planning and organizing institutional activities.
3. Analyze human resource practices and leadership roles in institutions.
4. Manage financial, material, and infrastructural resources efficiently.
5. Evaluate institutional performance using quality and governance frameworks.

Course Content

Unit I: Introduction to Institutional Management **(12 Lectures)**

Concept, meaning, and scope of institutional management
Types of institutions in Home Science: hospitals, hostels, schools, ICDS/Anganwadi, NGOs
Principles and functions of management, Organizational structure and administration
Role and responsibilities of institutional managers

Unit II: Planning and Organization of Institutions **(12 Lectures)**

Institutional planning: short-term and long-term planning
Layout, space planning, and infrastructure management
Work simplification and time management
Record keeping and documentation, Use of ICT in institutional management

Unit III: Human Resource Management **(12 Lectures)**

Recruitment, selection, and training of staff
Job analysis and job description, Supervision, motivation, and leadership
Communication and interpersonal relations. Gender sensitivity and inclusiveness in institutions

Unit IV: Financial and Material Management **(12 Lectures)**

Budgeting and financial planning. Cost control and resource optimization
Purchase, storage, and inventory management. Maintenance of equipment and facilities
Entrepreneurship and income-generating activities

Unit V: Quality Assurance, Welfare Services, and Governance **(12 Lectures)**

Quality control and standards in institutions
Monitoring and evaluation. Institutional policies and governance
Welfare services: nutrition, health, child care, and community services
Role of government and NGOs in institutional development
Sustainability and best practices

Recommended Readings

1. Varghese, M. A., Ogale, N. N., & Srinivasan, K. (2005). *Home management*. New Age International Publishers.
2. Nickell, P., Dorsey, J. M., & Buddemeier, S. (2016). *Management in family living* (4th ed.). CBS Publishers & Distributors.
3. Koontz, H., & Weihrich, H. (2015). *Principles of management: A global perspective* (14th ed.). McGraw-Hill Education.
4. Robbins, S. P., & Judge, T. A. (2017). *Organizational behavior* (17th ed.). Pearson Education.
5. Aswathappa, K. (2017). *Human resource management: Text and cases* (8th ed.). McGraw-Hill Education.
6. Pandey, I. M. (2015). *Financial management* (11th ed.). Vikas Publishing House.
7. Park, K. (2021). *Park's textbook of preventive and social medicine* (26th ed.). Banarsidas Bhanot Publishers.
8. National Assessment and Accreditation Council. (2020). *Manual for accreditation of higher education institutions*. NAAC.

OR SKILL ENHANCEMENT COURSE - B [ECHSC322B]

TECHNIQUES OF FOOD PRESERVATION

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This course helps to understand food preservation, the factors that cause food to deteriorate, preservation by chemical treatments, changing the environmental conditions (temperature, moisture content, ete.) Food preservation is a course important for food handlers, whether for their own use, or on a commercial basis.

Course Objectives:

1. To learn the principles behind the methods of preservations
2. To understand the stages of cookery and chemical characteristics in the preservation of fruits and vegetables
3. Able to formulate preserved food products and acquire skills to preserve different types of food items based on their perishability.

Learning Outcome

1. Know the principles of preservation behind the methods of preservation and acquire skills to formulate food-based products
2. Understand the stages of sugar cookery, quality of pectin and acidity in the development of preserved food products
3. Explore the principles of preservation in fruits and vegetable-based products
4. Skills to prepare cereals and pulse based preserved products and develop new products with retention of quality.

Course Content

Unit-I. Concept of Food Preservation (12 Lectures)

Importance of Food Preservation, Types of Food spoilage by Micro-organisms and by Enzymes
Basic Principles of Food Preservation, Food preservatives- Use of Salt, Acid, Sugar, natural food preservatives and artificial preservatives, Starting a food preserving unit, Product Promotion strategies and marketing skills

Unit-II. Preparation of dehydrated products (12 Lectures)

Methods of drying & dehydration, different types of driers, freeze drying- lyopholisation, packing & storage
Drying methods for the selected products-Rice, Sago, Wheat, Maida, Rice flakes, black gram dhal, green gram dhal, Horse gram dhal Roots and Tubers, General tips with drying foods, Preparation of salted, dehydrated, preserves (Traditional Indian varieties of chips, Papads, Khakharas etc and Masala Powders, onion, garlic, ginger powder etc.). Hands on experience: Drying of vegetables- peas, potato, carrot, French beans, Reconstitution of dried vegetables, Drying & preparation of powders garlic, ginger, spices mix etc

Unit-III. Preservation by Using Sugar (12 Lectures)

Role of Pectin in Preserved foods Stages in Sugar Cookery
Sugar Concentrates-Principles of Gel Formation
Hands on Experience: Preparation of Jam, Jelly, Marmalades, Sauce and Squash Preserves, Candied, Glazed, Crystallized Fruits, Toffee
Evaluation of pH, Acidity and pectin quality Visit to Fruits and Vegetable processing industry

Unit-IV. Preservation by Using Chemicals and Salts and Fermentation (12 Lectures)

Preparation and Preservation of Fruit Juices, RTS Pickling - Principles Involved and Types of Pickles Chemical Preservatives Definition, Role of Preservation Permitted Preservatives, FSSAI guidelines
Foods fermented by Yeasts Foods fermented by Bacteria, Common Fermented Foods, Wine and Cheese Making
Hands on experience: Pickle making, Visit to Commercial Pickle Manufacturing Food Industry and Wine industry

Unit-V. Preservation by Advanced Preservation Technology (12 Lectures)

Meaning and needs of freezing foods Types of Freezing and managing freezers
Guidelines for types of frozen foods-Fruits, Vegetables, fish, meat and poultry Smoking foods Pasteurization and Sterilization Food Irradiation
Vacuum Packing Canning and Bottling
Food Packaging Materials for preserved food products Hands on experience: Blanching of fruits & Vegetables
Visit to Food Industries

Recommended Readings:

1. Srivastava R.P. (2012), Fruit and vegetable preservation Principles and Practices, International Book Distributing Co., (IBDC), New Delhi.
2. Maria Parloa (2009), canned fruit, preserves and jellies: Household methods of preparation, US Department of Agriculture, Washington.
3. Shafiur, Rahman, M. (2007), Handbook of Food Preservation, 2nd edition, CRC press, New Delhi.

III. CORE COURSE [CCHSC323A]
FOOD SAFETY, SANITATION AND HYGIENE

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course description

A study of food safety, hygiene and sanitary practices in food industries causes investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards in Food Service Industries

Learning objectives

1. Learn the various aspects of food safety. Understand about food laws and labeling
2. Understand the need for consumer education

Learning outcomes

1. Upon completion of this course, the student will be able to: 1. Identify causes of and prevention procedures for food-borne illness, intoxication, and infection. Demonstrate good personal hygiene and safe food handling procedures; describe food storage and refrigeration techniques; explain sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse
2. Discuss Occupational Safety and Health Administration (OSHA) requirements and effective workplace safety programs in Food Service Industries.

Course Content

Unit-I. Introduction to Food Safety and adulteration Basic Principles of Food Safety **(12 Lectures)**

Food contamination: definition Sources of contamination
Difference between food poisoning and food infection
Safety in food processing -a. Food procurement; b. Storage; c. Handling; d. Preparation e. Safety of leftover foods
Frame-work for creating enabling environment for serving safe & nutritious food at the workplace.
Regulatory compliance requirements for the canteen establishments, Food Service Industries Safe & nutritious food tips for the employee, Factors affecting food safety and food spoilage.
Food adulteration - definition, types of adulteration in various foods- intentional, incidental and metallic contaminants

Unit-II. Food Laws and Regulations **(12 Lectures)**

National Legislation – Essential Commodities Act, Standard of Weight and Measures Act, ISI, Mark of BIS, Agmark and PFA, FPO, Food Safety and Standards Bill 2005,
International Laws and Agreements - FAO, WHO, Codex Alimentarious, WTO, JEFA, APEDA, ISO 22000 series,
Hazard Analysis Critical Control Point (HACCP): principles of HAACP, applications of HACCP

Unit-III. Current Food Safety Standards in India **(14 Lectures)**

Current Food Safety regulations 2001,
Food Safety and Standards Authority of India, objectives of developing food safety standards, enforcement of structure and procedure,
role of food analyst, safety analysis, action by designated officer and report of food analyst
Food Safety Management System (FSMS) Good Practices/ PRPs - HACCP, GMP, GHP Management Element / System. Statutory and regulatory requirements
Certification - HACCP, ISO 22000, FSSC 22000

Unit-IV. Sanitation Procedures **(12 Lectures)**

Basic Principles of Hygiene and Sanitation Personal hygiene and Environmental hygiene Methods of Sanitation and Hygiene. Sterilization and disinfection using heat and chemicals
Waste product handling and control- Solid and liquid waste disposal Control of infestation- Pest control
Cleaning and sanitizing- need for efficient cleaning program, cleaning agents, equipment's,
Methods to wash, rinse and sanitizing food contact surfaces. Importance and methods of pest control;
Outlining methods of disposal of liquid, solid and gaseous waste

Unit-V. Importance of Personal Hygiene of Food Handlers **(10 Lectures)**

General principles of hygiene – personal and environmental hygiene, hygienic practices in handling and serving foods, planning and implementation of training programme for health personnel

Recommended Readings:

1. Mahtab, S, Bamji S, Kamala Krishnaswamy, Brahmam G.N.V, *Text Book of Human Nutrition,* Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi, 2012.
2. Srilakshmi, B., Dietetics, New Age International (P) Ltd., New Delhi, 2013.
3. Swaminathan, M., *Advanced Textbook on Food and Nutrition*, Vol. 1, Second Edition, Bangalore Printing and Publishing Co. Ltd., Bangalore, 2012.
4. *Dietary Guidelines for Indians,* ICMR, National Institute of Nutrition.

OR CORE COURSE [CCHSC323B]

INTERPERSONAL RELATIONSHIP AND FAMILY DYNAMICS

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course prepares students for an understanding of contemporary interpersonal relationships in families and in society, from a psycho-social perspective. It includes a focus on concepts and theories of interpersonal communication, with an emphasis on types of relationships (family/peers/workplace), relationship development, communication strategies, stress and conflict management.

Course Objectives

1. Understand interpersonal relationships and family dynamics in contemporary India.
2. Understand one's own self and others with the aim of improving interpersonal relationships.
3. Understand theories and perspectives related to interpersonal relationships and family dynamics.
4. Develop an insight into interpersonal stress, conflict and its resolution.

Learning Outcomes

1. Explain basic components and processes involved in interpersonal relationship
2. Describe theoretical perspectives in understanding interpersonal relationships and family dynamics.
3. Use one's self-awareness in understanding significant others. Illustrate the significance of self-awareness in our understanding of significant others.
4. Formulate strategies for developing positive dynamics in different relationships and managing conflict.

Course Content

Unit-I Understanding the Self **(12 Lectures)**

Self-Awareness—personality characteristics, cultural beliefs, values, expectations and ideas guiding behavior

Self-identity— Identifying one's own philosophy and goals of life (influenced by personal history, socialization and context) Personality—factors that shape one's personality and its influence on behavior and interpersonal communications. Self with family/parents/siblings, peers, social/professional organizations. The impact of media on the self

Unit-II Perspectives and Theories **(10 Lectures)**

Perspectives: On friendships, love, family and other interpersonal relationships

- Ethological Perspective
- Psychological Perspective
- Sociological Perspective
- Cross-cultural perspectives

Theories:

- Social Exchange Theory
- Triangular theory of love - Robert Sternberg

Unit-III Basics of Interpersonal Communication **(10 Lectures)**

Process and components of basic communication

Interpersonal communication: communication of ideas and feelings, self-disclosure, crediting and criticism

Nurturing positive interpersonal communication and dynamics: perspective taking, empathy, listening and feedback skills.

Resolving interpersonal conflicts: Types of conflicts and management skills (in relation with marital, parental, workplace, family, and friends)

Unit-IV Life Choices (Education, Career, Romantic Relationships) **(12 Lectures)**

Engagement with life goals and conscious life choices- in view of personal philosophy, demands of the family, peers, societal norms.

Understanding intimate, love and romantic relationships within a cultural context

Career choices and professional relationships- developing trust, mutual respect, mindfulness, appreciation for diversity and open communication.

Understanding the role of adjustments in relationships- myths, misconceptions and factors influencing adjustment patterns.

Unit-V Family Dynamics **(16 Lectures)**

Understanding Family Dynamics- Definition, function and scope

Factors that shape roles, relationships and family dynamics (family size, age composition, structure, social and financial status, gender and ordinal position, power, hierarchy and patriarchy, employment) and how these dynamics shape individual personality and behavior.

Change and evolution of the family - Family life cycle and stages

Changing roles and dynamics through significant life events: romantic relationships, partner selection, marriage, childbirth, parenting, career trajectories and economic status, health issues, loss of loved ones.

Gender norms and roles in family dynamics

Interpersonal communication within families: Managing expectations (family/self/society), self-goals, adjustments and negotiations.

Forms of family crisis: Marriage, divorce/separation, remarriage, financial instability, poor work-family balance, illness, death, childlessness, child abuse/neglect, family violence, peer pressure, addiction, rape, suicide, unemployment, natural disasters, epidemics and wars.

Family cohesion- the role of effective communication, compassion, perspective-taking, role distribution, positive conflict resolution, and teamwork.

Agencies offering support: Marriage and family therapists, Family courts, Child guidance clinics, counseling and rehabilitation centers.

Recommended Readings:

1. Arnett, J.J. (2005). Youth, cultures and societies in transition: The challenge of growing up in a globalized world. In F. Gale & S. Fahey. (Eds.), Youth in Transition – The challenges of generational change in Asia (pp 22-35). Bangkok: Regional Unit for Social and Human Sciences in Asia and the Pacific.
2. Baron, R. A., Byrne, D., &Branscombe, N. R. (2006). Social psychology. ND: Pushp Print Services.
3. Chaudhary, N., & Shukla, S. (2019). Family, identity, and the individual in India. In G. Misra (Ed.), Psychology: Volume 2: Individual and the social: Processes and issues (pp.143-189). New Delhi, India: Oxford University Press.
4. D'cruz, P., & Bharat, S. (2001). Beyond joint and nuclear: The Indian family revisited. Journal of Comparative Family Studies, 32(2), 167-194.
5. Duck, S. (1998). Human relationships. ND: Sage.
6. Ganguly-Scrase, R. (2007). Victims and agents: Young people's understanding of their social world in an urban neighbourhood in India. Young, 15, 321-341.
7. Gardiner, H.W., Mutter, J.D. &Kosmitzki, C. (1998). Lives across cultures: cross-cultural human development. Boston: Allyn and Bacon.
8. Gudykunst, W. B., & Toomey, S. T. (1998). Culture and interpersonal communication. ND: Sage.
9. Mines, M. (1998). Conceptualizing the person: Hierarchical society and Individual autonomy in India. American Anthropologist, 90(3), 568-579.
10. Pestonjee, D. M. (1992). Stress and coping: The Indian experience. New Delhi: Sage
11. Weiten, W., & Llyod, M. A. (2004). Psychology applied to modern life. Singapore: Thompson Asia Pvt. Ltd.

OR CORE COURSE [CCHSC323C]

TEXTILE DESIGN AND ILLUSTRATION

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

Design and development of textiles is the key to the fashion world. This course aims to develop innovative approaches to design by understanding the fundamentals of design. It emphasizes on building a variety of skills, in combination with theoretical knowledge and practical application. It also focuses on knowledge and techniques needed to produce fashion drawings along with the vocabulary of clothing styles and accessories. It will lead to the development of students' intellectual abilities, creativity, independence, critical self-awareness, imagination and skills that will enhance global employment opportunities on completion of the course

Learning Objectives:

1. Understand the principles and elements of design.
2. Apply the principles and elements of design in textiles and fashion design.
3. Explore and learn sketching and drawing techniques to represent styles and fabrics in fashion.
4. Learns basic traditional media methods to develop creative and customized fashion illustrations
5. Design apparels and accessories for men, women and children.

Learning Outcomes:

Successful completion of this course will enable students to

1. Define and apply the principles and elements of design in textiles and fashion design.
2. Design and create visual compositions in fashion illustration and explains fashion apparel construction when illustrating garments. Analyze fabrics and their tactile/visual qualities to render them appropriately.
3. Apply basic traditional media methods to develop creative and customized fashion illustrations

Course Content

Unit-I. Understanding Design **(10 Lectures)**

Design-its meaning and importance, structural and decorative design
Importance of good taste in design. Designer – Textile designer and Fashion designer
Challenges and opportunities for design and designers

Unit-II. Elements of Design and Its Co-Relation **(12 Lectures)**

Point, Line, Colour, Plane, Volume, Space, Shape, Form, light, Texture, pattern

Unit-III. Principles of Design and Its Co-Relation **(12 Lectures)**

Balance, Proportion and scale, Rhythm, Emphasis, Harmony, Contrast, Variety Law of area

Unit-IV. Line, Colour and Pattern in Design **(14 Lectures)**

Line and its expressiveness. Types and composition. Effect of lines to create rhythm and optical illusions Colour expression. Colour wheel and its dimension Colour mixing and colour system Colour harmony and colour scheme Colour in different media. Colour in fabric, texture and light Pattern. Surface pattern and pattern group Repeat pattern

Unit-V. Human Body Proportions and Illustrating Fashion **(12 Lectures)**

Balance and proportion in human body: average and fashion figures
Postures of male, female and children croquies and its significance: Front view, Back view, Side view and 3/4th view. Stylizing the croquie and its importance, Understanding fabric textures and drapes

Recommended Readings:

1. Derrick, L. (2018) Fashion Sketchbook: Fashion Sketchbook with figure templates (Fashion Croquis), Create Space Independent Publishing Platform
2. Elaine, S. (2013) The Dynamics of Fashion. 4th Ed. New York: Bloomsbury publication.
3. Julia Y.,& Donna G., (2011), the Fashion Careers Guidebook: A Guide to Every Career in the Fashion Industry and How to Get It, Barron's Educational Series.
4. Linda,T.,(2010), Portfolio Presentation for Fashion Designers, 3rd Edition, Fairchild books, New York.
5. Mary,L.G.,(2008), The Fairchild Encyclopedia of Menswear, Fairchild Publications, New York.
6. Michele W.B., Diane D., (2006), the Spec Manual, Fairchild Publications, New York.
7. Patrick, J. I. (2009) New Encyclopedia of Fashion Details: Over 1000 Fashion Details, London: B.T. Batsford.
8. Patrick, J. I. (1996) Fashion Design Illustration - men, London: B.T. Batsford.
9. Patrick, J. I. (2005) Fashion Design Illustration - men, London: B.T. Batsford
10. Patrick, J. I. (2003) Introduction to Fashion Design, London: B.T. Batsford
11. Sharon L. T. and Glazer, S.S. (2017), Illustrating Fashion, 4th Ed. New York: Fairchild Books. The Snap Fashion Sketch Book, Prentice Hall, NewJersey.
12. Stipelman, S. (2017) Illustrating Fashion, 4th Ed. New York: Fairchild Books.
13. Tate, S. L. & Glazer, B. (2007) The Snap Fashion Sketchbook, New Jersey: Prentice HalL

IV. CORE COURSE [CCHSC324]
PRINCIPLE OF INTERIOR DESIGN

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

Designing in modern day's gains significance both in terms of planning an interior space functionally as well as aesthetically. The Course exposes the students to the concept of interior design and the trends emerging periodically in terms of purpose, materials and methods. Furthermore, they get an opportunity to have hands-on experience in using the basic elements and principles of design in day to day living

Learning Objectives

1. Gain knowledge and interpret the elements and principles of art in interior design
2. Use the elements and principles to create beautiful designs and interiors
3. Apply theoretical knowledge for practical situations
4. Decipher the nuances of Indian interior design

Learning Outcomes

1. Appreciate growth and development of interior design and decoration in India
2. Enabling students distinguish between Interior decoration and Interior design
3. Analyze place of elements and principles in interior designing
4. Gain knowledge on Institutes offering Interior design as professional Courses

Course Content

Unit I. Interior Design vs. Interior Decoration (12 Lectures)

Interior Design and Interior Decoration: concept and basic differences Aims of Interior Design: Beauty, Expressiveness and Functionalism

Characteristics - cultural and ethnic influences

Popular interior designers in India Interior designer – definition and functions, Characteristics of an Interior designer Interior Design Institutes in India

IIDA – International Interior Design Association; IIID- Institute of Indian Interior Designers – vision and functions

Unit II. Fundamentals in Designing (12 Lectures)

Design: Definition and classification

Structural design – importance and requirements of good structural design Decorative design – importance and requirements of good decorative design

Classification of decorative design- naturalistic, conventional, geometric, abstract, historic and biomorphic. Relation of good taste and perception of Interior Design

Unit III. Design Elements (12 Lectures)

Elements of design: Meaning, importance, characteristics of each element and their use in designing

Line- meaning and definition, types-actual, implied, psychic and purpose

Line and direction-vertical, horizontal, diagonal, curved, zigzag;

Shape and form: meaning and basic difference between the two

Elements of shapes and forms- types- 2D - square, triangle, circle and polygons and their 3D forms – cube, pyramid/cone, sphere etc. Rectilinear Vs angular forms

Space – meaning and perception, negative and positive space, significance in designing

Size – small to large

Texture – meaning and classification- tactile and visual textures, structural and applied

Texture; Use of Textures in Interiors –Texture and Scale, Texture and Light, Texture and Light, texture and Colour

Colour –spectrum, Theories, qualities, The Prang Colour System, Effects of colour Colour (Physical, Emotional) Principles of design in use of colour, Colour schemes (related, contrasting), consider the choice of colour in different rooms

Pattern and ornamentation – conceptual meaning, significance in designing; Guidelines to use pattern in design. Motifs types and arrangement; Motif development- fundamental step in designing process

Light- significance, emotional effect, types and use

Unit IV Design Principles (12 Lectures)

Principles of design - Meaning, nature, types and significance in designing

Balance: meaning and definition, classification

Rhythm: meaning and definition, types

Emphasis– meaning and definition, types and methods of achieving

Proportion: meaning and definition, Greek/Golden oblong in space division, concept of scale and law of space relationship in designing

Harmony: meaning and definition, methods of achieving

Evaluation of design-criteria for evaluation

Unit V Accessories in Interiors **(12 Lectures)**

Accessories: Definition and importance Classification –functional, decorative and both
Selection and placement of accessories
Pictures as accessories - types of picture, selection of pictures, mounting, framing and hanging
Art objects as accessories – wall hangers and paintings
Crafts as accessories - pottery, wood craft, basket making;
Sculpture, Antiques, indoor plants and flowers as accessories

Recommended Readings:

1. Asher, F.M. (2003). Art of India – Prehistory to the Present. Encyclopedia Britannica Inc.
2. Bhatt,P. (2011). Foundation of Art and Design. Mumbai: The Lakhani Book Depot.
3. Chaudhari, S.N.(2005). Interior Design.Jaipur: Aavishkar Publishers
4. Craig, H and Rush,O.(1969).Homes with Character. New Delhi: Universal Book Store
5. De Van D. S., Darlene, M, K., Logan, K, C., and Szekely, L. (1980). Introduction to Interior Design. New York: Macmillan Publishing Co. Inc.
6. Gandotra, V. ,Shukul, M., and Jaiswal, N .(2010-11). Introduction to Interior Design & Decoration. New Delhi: Dominant Publishers and Distributors. (ISBN No.81-7888-295-7)
7. Goldstein,H., and Goldstein, V. (1967).Art in Everyday Life. N Delhi: Oxford and IBH Publishing Co.
8. Kasu, A.A (2005).Interior Design. Delhi: Ashish Book Centre
9. Mullick, P. (2016).Text Book of Home Science.(4th Ed.).Kalyani Publishers (ISBN13 9789327262766)
10. Nissen,L., Faukner,R., and Faulkner S .(1994). Inside Today's Home (6th Ed.).Florida : Harcourt Brace College Publishers (ISBN No. 0-03-0555492-6)
11. Rutt, A, H. (1969).Home Furnishing. New Delhi: Wiley Eastern Pvt. Ltd.
12. Seetharaman, P., and Pannu, P.(2010). Interior Design and Decoration.New Delhi : CBS Publishers & Distributors Pvt. Ltd(ISBN No. 81-239-1192-0)
13. Shaw, R.B. (2003).Interiors by Design. London, New York: Ruland Peters and Small,

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VII. CORE COURSE PRACTICAL [CPHSC325]

Marks: 30 (MSE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	Pass Marks = 45

(Credits: Practical-04, 120 Hours)

SECTION I (Compulsory)

Unit 1 **20Hrs. =10 classes**

1. Field visit to institution (school/hospital/anganwadi/NGO) for organisational chart and role analysis
2. Preparation of short-term and long-term institutional plan with Layout/space planning (manual or digital)
   a. and work simplification and time management suggestions
3. Visit to an institution to analyse
   a. job description, and job specification
   b. Recruitment and training plan, communication and motivation strategies
   c. Preparation of institutional budget, Cost control measures
   d. Maintenance off stock register/inventory formats
   e. Evaluation of welfare services
   f. Quality Indicator and Maintenance

OR

1. Identify types of food spoilage (microbial and enzymatic) using common foods, and demonstrate use of basic preservatives (salt, sugar, acid)
2. Drying of selected vegetables (peas, potato, carrot, beans) using sun/mechanical drying, and preparation of dehydrated products (chips, papad, spice powders, garlic/ginger powder)
3. Testing of pectin, pH, and acidity and preparation of jam, jelly, marmalade, squash, and sauce: preparation of candied and crystallized fruits/toffee
4. Preparation of pickles (oil and brine based)
5. Demonstration of fermented foods (curd, idli batter, etc.)
6. Demonstration of blanching and freezing of vegetables/fruits
7. Visit to observe pasteurization, sterilization, and canning methods (demo) , vacuum packaging and packaging materials. Preparation of a report on food industry visit

Unit 2 **20Hrs. =10 classes**

1. Preparation of one-day meal plans for Vata, Pitta, and Kapha
2. Preparation Satvik meals, herbal drinks (e.g., kadha), digestive preparations
3. Study of Shad Rasa (Six Tastes), Identification and inclusion in daily diet
4. Lifestyle Assessment and Planning -Designing Dinacharya and Ritucharya schedules
5. Diet and lifestyle planning for common conditions (obesity, acidity, diabetes Cold & cough
6. Constipation, Gas)
   Use of Herbs and Spices in Nutrition -Functional role and preparation methods

Unit 3 **20Hrs. =10 classes**

Market Study on:

1. furniture construction and detailing, availability and cost of different types of furniture
2. Availability and popularity of eco-friendly materials
3. availability and cost of building materials and finishes
4. Submission of layout drawings for different rooms & furniture using cut outs
5. Area arrangement - Interior design for different rooms as mock up spaces
6. Visits to:
7. hotels, restaurants, conference hall, corporate offices to study significant differences in designing of interiors and space organization

SECTION II (Select any one group as per the theory group chosen)

A. **FOOD SAFETY, SANITATION AND HYGIENE** **60Hrs. =30 classes**

1. Microbiological Examination of different food samples
2. Bacteriological Analysis of Water
3. Assessment of surface sanitation by swab/rinse method
4. Assessment of personal hygiene
5. Biochemical tests for the identification of bacteria
6. Scheme for the detection of food-borne pathogens

7. Detection of common adulterants in food: i) Khesari flour in besan ii) Vanaspati in Ghee/Butter. Dried papaya seeds in black pepper, metanil yellow in turmeric or colored sweet products and artificially foreign matter in tea (dust/leaves).

OR

B. **INTERPERSONAL RELATIONSHIP AND FAMILY DYNAMICS** **60Hrs. =30 classes**

1. Group discussion/role play/simulations on interpersonal relationships
2. Conduct workshops on: cultural variations in interpersonal relationships, family dynamics, verbal vs non-verbal communication, and social networking.
3. Plan an interaction with a counselor or therapists working in the area of interpersonal conflicts (in the family family/peer group/parent-child dyad/workplace).
4. Conduct a workshop on enhancing family cohesion and conflict resolution
5. Select a form of family crisis or stress. Describe ways of preventing and managing the crisis.
6. Create posters about ways to improve interpersonal communication skills and patters of relating to enhance resiliency in relationships.

OR

C. TEXTILE DESIGN AND ILLUSTRATION **60Hrs. =30 Classes**

1. 1,. Introduction of flat sketches, garment features and accessories: types of silhouettes, skirts, trousers, necklines, collars, sleeves, coats and jackets, footwear, handbags.
2. Factors to be considered when designing for children, women and men- formal wear, casual wear, night wear, sportswear, ethnic wear, wedding wear
3. Drawing average and fashion figures: stick, block and flesh
4. Observation of people and live sketching in different postures
5. Converting photographic poses from magazines into fashion illustration
6. Exploring medias to create fabric textures
7. Rendering of fabric swatches and fabric drapes using different colour medias
8. Visit to fashion museum / virtual tour of a fashion museum.
9. Visiting designers' boutique/designer's website
10. Preparation of an album of garment features for designing apparel.
11. Preparation of an album of accessories suitable for different occasions.
12. Observation of people in different situations and live sketching of styles worn
13. Designing of apparel and accessories for men, women and children as per the given brief.
14. Portfolio development

SEMESTER IV

I. ELECTIVE COURSE-A [ECHSC421A]
NUTRITIONAL BIOCHEMISTRY, MICROBIOLOGY & GENETICS

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description:
This course offers an integrated understanding of biochemical processes related to human nutrition and the role of microorganisms in food and health. It covers the digestion, absorption, and metabolism of macro and micronutrients, with emphasis on enzyme functions, energy production, and metabolic disorders. The microbiology component focuses on foodborne pathogens, beneficial microbes, food spoilage, fermentation, and food safety. Students will gain foundational knowledge in both biochemistry and microbiology, preparing them for advanced work in nutrition, clinical dietetics, food technology, genetics and public health.

Course Objectives
The course aims to:
1. Develop advanced understanding of biochemical processes related to nutrition
2. Explain the role of microorganisms in food, health, and disease
3. Introduce genetic principles and nutrigenomics in human health
4. Apply interdisciplinary knowledge to public health, food safety, and personalized nutrition

Course Outcomes
After completion, learners will be able to:
1. Explain biochemical pathways of macronutrients and micronutrients
2. Analyze microbial roles in food spoilage, fermentation, and health
3. Understand genetic mechanisms influencing nutrition and metabolism
4. Apply nutrigenomics concepts in disease prevention
5. Evaluate food safety and microbial control strategies
6. Integrate biochemistry, microbiology, and genetics in real-life nutrition problems

Course Content

Unit I: Fundamentals of Nutritional Biochemistry **(10 Lectures)**
- Cell structure and biochemical organization
- Water balance, pH, buffers
- Enzymes: classification, mechanism, factors affecting activity
- Bioenergetics and ATP cycle
- Overview of metabolism

Unit II: Metabolism of Macronutrients **(12 Lectures)**
- Carbohydrates: Glycolysis, TCA cycle, gluconeogenesis, glycogen metabolism
- Proteins: Amino acid metabolism, transamination, urea cycle
- Lipids: β-oxidation, lipogenesis, cholesterol metabolism
- Hormonal regulation of metabolism

Unit III: Micronutrients and Functional Components **(8 Lectures)**
- Vitamins (fat-soluble & water-soluble): biochemical roles
- Minerals: calcium, iron, iodine, zinc
- Antioxidants (e.g., carotenoids like lutein)
- Phytochemicals and functional foods

Unit IV: Food Microbiology and Safety **(10 Lectures)**
- Classification and characteristics of microorganisms
- Microbial growth and control
- Food spoilage and food-borne diseases
- Beneficial microorganisms: Prebiotics, Probiotics and Postbiotics

Unit V: Human Genetics and Nutrigenomics **(10 Lectures)**
- Basic genetics: DNA, RNA, gene expression
- Mendelian inheritance and genetic disorders
- Molecular genetics and mutations
- Nutrigenomics and nutrigenetics

Gene–diet interaction in diseases: Obesity, diabetes, cardiovascular diseases

Unit VI: Applied Aspects and Emerging Trends **(10 Lectures)**

Personalized nutrition
Gut microbiome and health
Biotechnology in food and nutrition
Functional foods and nutraceuticals
Ethical, legal, and social issues (ELSI)

Recommended Readings

1. Lehninger, A.L., Nelson, D. L., & Cox, M. M. (2021). *Principles of biochemistry* (8th ed.). W. H. Freeman and Company.
2. Rodwell, V. W., Bender, D. A., Botham, K. M., Kennelly, P. J., & Weil, P. A. (2021). *Harper's illustrated biochemistry* (32nd ed.). McGraw-Hill Education.
3. Frazier, W. C., & Westhoff, D. C. (2013). *Food microbiology* (5th ed.). Tata McGraw-Hill.
4. Lewis, R. (2020). *Human genetics: Concepts and applications* (13th ed.). McGraw-Hill Education.
5. Indian Council of Medical Research. (2024). *Dietary guidelines for Indians*.
6. National Institute of Nutrition. (2020). *Recommended dietary allowances and nutrient requirements for Indians*.
7. Food Safety and Standards Authority of India. (2021). *Food safety and standards regulations and manuals*.

OR ELECTIVE COURSE-B [ECHSC421B]

GENDER, SOCIETY AND HUMAN DEVELOPMENT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

The course introduces students to gender and related concepts, and enables an understanding of gender as a socially constructed concept. It explores critical questions about the meaning and implications of gender in society, and acquaints students with key issues, debates, and questions pertaining to gender.

Course Objectives

1. Learn about the concepts of gender, patriarchy, equality, equity, and feminism as well as the intersection of social class and caste to determine the status of women.
2. Recognize how social institutions are patriarchal.
3. Develop sensitivity regarding the socio-cultural, economic and political factors that shape life experiences in relation to gender
4. Learn about women's human rights and laws related to women in India.
5. Learn about different gender identities and sexual orientations- masculinities, LGBTQIA in the Indian context

Learning Outcomes

1. Describe basic concepts of gender and relevance of gender studies as an academic discipline.
2. Describe theories and concepts of gender and development.
3. Analyze human rights in terms of gender equality and gender equity.
4. Critically analyze existing laws and the legal system through a gender lens.
5. Analyze how gender is constructed in different types of media.

Course Content

UNIT-I Gender: A Social Construction **(12 Lectures)**

Differences between sex and gender – biological determinism
Key gender concepts and definitions
Gender socialization in family and society
Patriarchal institutions and key areas of patriarchal control
Caste, class and gender intersectionality in India
Gender identities and sexual orientations (femininity, masculinity, LGBTQIA)
Status of women – historical and contemporary perspectives
Introduction to women's studies/ gender studies as a discipline

UNIT-II Gender and Development: Approaches and Strategies **(12 Lectures)**

Concept of gender and development – indicators of human and gender development – equality and equity
Orientation to theories of women, gender and development (WID, WAD and GAD)
Human Development Index (HDI), Gender Development Index (GDI), Gender Inequality Index (GII), and Gender Empowerment Measure
Gender budgeting and gender auditing
Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)

UNIT-III Gender, Rights and Laws **(12 Lectures)**

Girls, women, and human rights
UDHR, UN-CEDAW and UN-CRC
Constitutional provisions accorded to women
Legal aspects related to women: PCPNDT Act, PWDVA, Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) act, Indecent Representation of Women (Prohibition) Act, The Dowry Prohibition Act.
Overview of laws related to marriage, divorce and property inheritance.
The Women's Reservation Bill

UNIT-IV Role of Media in Social Construction of Gender **(12 Lectures)**

Social construction of gender reality by contemporary media
Media and perpetuation of gender stereotypes: rhetoric of the image, narrative
Mainstream media and gender
Representation of women in media in political, cultural and social landscape
Researching and analyzing media from a gender perspective: in broadcast, print, new media.
Gender and media ethics
Gender and ICTs

UNIT-V Gender, Health and Empowerment **(12 Lectures)**

Gender discrimination and under nutrition

Epidemiology of menstruation and menstrual disorder, health indicators and gender gap
Socioeconomic inequality and women's health
Biological and psychological determinants of women's health (all in brief)
Gender inequality in labor market: segmented labor market and occupational segregation
Gendered jobs and social inequality
Sex segregation at work place (in brief)

Recommended Readings

1. Bhasin, K. (2003). *Exploring masculinity.* New Delhi: Women Unlimited.
2. Bhasin, K. (2000). *Understanding gender*. New Delhi. Kaali for Women.
3. Chakravarti, U. (2018). *Gendering caste: Through a feminist lens.* New Delhi: Sage.
4. Chatterjee, P. (2002). *Community, gender and violence*. Delhi: Permanent Black.
5. Das, B. (2009). *Gender issues in development.* Jaipur: Rawat Publications.
6. Goel, A, Kaur, A and Sultana, A. (2006). *Violence against women: Issues and perspectives*. New Delhi: Deep& Deep Publishers.
7. Dasgupta, S., Sinha, D., & Chakravarti, S. (2011). *Media, gender, and popular culture in India: Tracking change and continuity*. New Delhi: Sage Publishing India.
8. Kannabiran, K. (Ed.). (2013). *Women and law: Critical feminist perspectives*. New Delhi: Sage.
9. Kumar, S. (2019). *LGBT Community in India: A study*. New Delhi: Educreation Publishing
10. Thomas, S. E. (2019). *Gender, human rights and law*. Volume - 6 Bangalore: Centre for Women and the Law, National Law School of India University

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OR ELECTIVE COURSE-C [ECHSC421C]

DYEING, PRINTING AND FINISHING OF TEXTILES

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

After the manufacturing of textiles, value addition is required. Dyeing printing and finishing of the textiles are the prime methods of value addition to the textiles. This course deals with the basics of the Dyeing, printing and finishing along with the influence of chemicals and auxiliaries on the end products. It further describes different types of dyeing, printing and finishing and explains the procedure of doing it on different fabrics to obtain required results This will help in using reasonably priced dyes and dyeing procedure and operating according to ecological requirements and carrying out in the shortest possible time.

Learning Objectives:

1. Introduce basics of dyeing, printing and finishing
2. Inculcate the knowledge of auxiliaries and chemicals used for dyeing and printing
3. Enhance the understanding of the relation between the dyes, pigments and fabrics.
4. Acquaint students with the importance of finishing of textiles
5. Develop the skills in doing dyeing and printing of textiles
6. Reproducing the required shade from batch to batch.

Learning Outcomes:

Ssuccessful completion of this course will enable students to

1. Describe the basics of dyeing, printing and finishing.
2. Examine the knowledge of auxiliaries and chemicals used for dyeing and printing
3. Explain the relation between the dyes, pigments and fabrics.
4. Recommend the finishing for textiles
5. Dye and print textiles.
6. Reproduce the required shade from batch to batch.

Course content

Unit-I. Introduction of Dyeing and Printing **(12 Lectures)**

History of dyeing and printing
Terms related to colour- Dye, pigment, light, hue, value, intensity
Colour wheel and schemes
Digital colour models: CMYK. RGB
Colour matching system
Directional and non-directional printing
Motifs types: Geometric, floral and novelty

Unit-II. Basics of Dyeing and Printing **(12 Lectures)**

Classification of dyes Classification of Printing
Difference between dyes and pigments
Preparation of fabrics before dyeing and printing designing, scouring, bleaching, mercerization, carbonization Heat setting: processing method

Unit-III. Dyeing **(12 Lectures)**

Classification of dyes
Auxiliaries and machineries used for dyeing Methods for dyeing
Factors affecting dyeing, dyeing of cotton, wool and silk Dyeing of viscose and polyester
Natural dyeing methods and limitations After treatments

Unit-IV. Printing **(12 Lectures)**

Preparation of print paste and printing table Pigments and dyes used
Direct style of printing Resist style of printing Discharge style of printing Novel techniques of printing
Fixation and after treatment processes Dyes for digital textile printing

Unit-V. Finishes **(12 Lectures)**

Classification: Physical, Chemical and Functional Objectives of textile finishing
Factors affecting the finishing of textiles: fibre, weave, physical properties, end use, susceptibility to chemical modification
Finishes for achieving different texture Finishes for enhancing specific characteristics

Recommended Readings:

1. Chavan, R.B. (1979). Textile Printing (Book of Papers) Department of Textile Technology, IIT New Delhi.
2. Giles, G.H. (1974) Laboratory Course in Dyeing Hart & Clough; Bradford; England Kale
3. D.G. (1976) Principles of Cotton Printing. Maharaja Brothers Ahmedabad.
4. Saraiya, N.S. & Gupta P.C. Technology and Management of Printing.
5. Shenai, V.A. (1979). Chemistry of Dyes and Principles of Dyeing. Sevak Publications Mumbai
6. Trotman E.R. (1975). Dyeing and Chemical Technology of Textile Fibre. Charles Griffin & Co. Ltd., London
7. Wynne Andrea (1997). Textiles. The Motivate Series Mcmillain Education Ltd., London.
8. Vilensky L.D. & Gohil E.P. G. (1987) Textile Science, An explanation of fiber properties. CBS Publishers & Distribution, Delhi.

II. ELECTIVE COURSE-A [ECHSC422A]
ADVANCED PHYSIOLOGY

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description:
This course provides an in-depth understanding of physiological processes at the molecular, cellular, and systemic levels. It emphasizes the interrelationship between nutritional status, health, and physiological functions**.**

Course Objectives:
On completion of this course, the students will be able to understand:

1. To introduce students to the scientific study of human strength, well-being and flourishing and to apply positive HSC psychological principles to enhance personal and collective life.

Learning Outcomes
Upon successful completion of this course, students will be able to:

1. Analyze the cellular and molecular mechanisms underlying physiological processes.
2. Evaluate the interrelationship between nutrition, metabolism, and organ system function.
3. Interpret physiological changes during different life stages and in common pathological conditions.
4. Apply knowledge of advanced physiology to nutritional assessment and clinical dietetics.
5. Demonstrate an understanding of the hormonal regulation of human body systems.

Course Content

Unit I: Cellular Physiology and Tissue Dynamics (12 Lectures)
Cellular Structure & Function: Advanced molecular structure, cellular transport mechanisms (active/passive), and intercellular communication. Cell Signaling: Transmembrane signaling, second messengers, and G-proteins.
Tissue Dynamics: Physiological basis of regeneration and repair in epithelial, connective, muscular, and nervous tissues.
Membrane Potential: Resting potential, action potential, and synaptic transmission.

Unit II: Cardiovascular and Respiratory Dynamics (12 Lectures)
Cardiovascular Physiology: Cardiac output, cardiac cycle, hemodynamics, blood pressure regulation, and vascular resistance. Blood Physiology: Hemoglobin and oxygen transport, plasma proteins, blood coagulation mechanisms, and immune system activation (complement system).
Respiratory Physiology: Pulmonary function tests, mechanics of breathing, alveolar ventilation, gas exchange, and transport, regulation of respiration (chemical and neural).

Unit III: Gastrointestinal and Renal Physiology (12 Lectures)
Gastrointestinal Tract (GIT): Advanced regulation of secretion, motility, digestion, and absorption of nutrients. Gastric, pancreatic, and biliary secretions. Microbiome & Gut Health: Role of gut flora in nutrient metabolism and immunity.
Renal Physiology: Nephron structure and function, glomerular filtration, tubular reabsorption/secretion, and concentration of urine. Fluid & Electrolyte Balance: Regulation of body fluid balance, water distribution, and acid-base balance (respiratory and renal control).

Unit IV: Endocrinology and Reproduction (12 Lectures)
Endocrine System: Mechanism of hormone action, regulation of hormone secretion, and feedback loops (hypothalamic-pituitary-target organ axis).
Metabolic Hormones: Thyroid, parathyroid, insulin, glucagon, and glucocorticoids in metabolic regulation.
Reproductive Physiology: Physiology of puberty, menstrual cycle, pregnancy, lactation, and menopause.
Hormonal Basis of Infertility: Causes and management.

Unit V: Neuro-muscular and Life Cycle Physiology (12 Lectures)
Nervous System: Central and peripheral nervous system interaction, neurotransmitters, and autonomic nervous system (ANS) influence on metabolism.
Special Senses: Physiology of taste, smell, and vision (as related to food intake and nutrition).
Physiology of Exercise: Cardiovascular and respiratory changes during exercise.
Physiology of Aging: Changes in body composition, organ systems, and metabolism during aging.

Recommended Readings

1. Guyton, A.C. & Hall, J.E. (Latest Ed). Textbook of Medical Physiology. Elsevier.
2. Barrett, K.E. et al. (Latest Ed). Ganong's Review of Medical Physiology. McGraw-Hill.
3. West, J. B. (Latest Ed). Respiratory Physiology: The Essentials. Lippincott Williams & Wilkins.
4. Johnson, L. R. (Latest Ed). Essential Medical Physiology. Academic Press.
5. मानव शरीर एवं पोषण विज्ञान, दिल्ली। आशा कुमारी, क्लासिकल पब्लिशिंग, नई
6. Foundation of Anatomy and physiology (1973) Ross and Wilson, Medical division of Longman Group Ltd

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OR ELECTIVE COURSE-B [ECHSC422B]

PARENTING IN EARLY CHILDHOOD

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description:

This course explores the pivotal role of parenting in the early years of a child's life (0–8 years), focusing on the physical, emotional, social, and cognitive development of young children. It examines parenting styles, practices, and challenges in diverse socio-cultural contexts. The course emphasizes positive parenting, parent-child bonding, discipline strategies, and the influence of parental behavior on child outcomes. Students will gain insights into supporting parents through education, counseling, and community-based interventions. The course also aligns with contemporary frameworks like NEP 2020 and promotes holistic development through informed and responsive parenting.

Course Objectives:

1. To understand the significance of parenting in early childhood development.
2. To study different parenting styles and their impact on children's behavior and personality.
3. To explore the role of family, culture, and socio-economic status in shaping parenting practices.
4. To develop skills in guiding and supporting parents for effective child-rearing.
5. To promote positive parenting strategies for nurturing emotional security and healthy development.

Course Outcomes:

After completing this course, students will be able to:

1. Describe the developmental needs of children in early childhood and the role of parenting in meeting them.
2. Differentiate between parenting styles and assess their effects on child development.
3. Apply knowledge of developmental psychology in suggesting age-appropriate parenting practices.

Contents:

Unit I. Introduction: **(12 Lectures)**

The task of parenting and the concept of parenting skills.
Changing concept of parenthood and childhood.

Unit 2. Individual parenting roles: **(12 Lectures)**

Determinant of Parenting behaviour.
Characteristics of the parenting roles.
Role of Father, Role of Mother, Concept of Family.

Unit 3. Developmental interaction in early childhood years: **(12 Lectures)**

Parent role in developing self-awareness in children.
Family relation and communication.
Helping the child to learn to express and control emotions.
Helping the children to discover personal capabilities.
Establishing routine and showing responsible behaviour.

Unit 4. Mental Health: **(12 Lectures)**

Definition concept and importance of Mental Health.
National Mental Health Policy of India.

Unit 5. Theories of Human Development: **(12 Lectures)**

Freud's Psychoanalytic theory
Learning theory of Pavlov, Skinner
Cognitive theory of Piaget.

Recommended Books

1. S K Mangal and Shubhra Mangal, (2022), Child Psychology & Development, Sterling Publishers Pvt .Ltd
2. Ginott, G. Haim, (2003), Between Parent and Child, Harmony Publishers.
3. Sinha, A. (2006) Organization and Management of Early Childhood Education, H.B Bhargava Book House, 4/230 Kacheri Ghat, Agra, Ist edition

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OR ELECTIVE COURSE-C [ECHSC422C]

PATTERN MAKING AND DRAPING

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

This comprehensive course in Pattern Making and Draping is designed to bridge the gap between two-dimensional design sketches and three-dimensional garment construction. It covers fundamental techniques of flat pattern, drafting, dart manipulation, and fabric draping on a dress form, enabling students to create accurate, well-fitting, and creative apparel. The Pattern Making and Draping course introduces students to the essential, technical foundation of fashion design.

Course Objectives

1. To familiarize students with the tools, terminology, and techniques of flat pattern making and 3D draping.
2. To develop proficiency in creating basic blocks/slopers (bodice, skirt, sleeve) from, and adapting them for various designs.
3. To master dart manipulation, including transferring darts to create princess lines, gathers, pleats, and cowls.
4. To impart understanding of fabric behavior and grainlines, and how to utilize them during the draping process on a dress form.
5. To equip students with skills to evaluate and rectify garment fit, ensuring balance and proper fit in final garments.

Course Outcomes

Upon successful completion of this course, students will be able to:

1. Draft and manipulate basic patterns (bodice, skirt, sleeve) to produce various design variations.
2. Drape and create original, 3D garments by arranging fabric on a dress form, including bodice blocks with single/two darts and skirts.
3. Execute pattern alterations for proper fit, adjusting for body measurements and improving balance.
4. Transfer muslin drapes to paper patterns, adding appropriate seam allowances, notches, and grainlines.
5. Produce high-quality, wearable prototypes that demonstrate understanding of fabric characteristics and construction principles.

Course Content

Unit I: Introduction to Pattern Making **(5 Lectures)**

Tools, terms and techniques, Fabric terms, Dart and Grain line, Flat pattern making, Draping.

Unit II : Basic Upper and lower sloper/ Block **(10 Lectures)**

Principles in pattern making for -
Upper garment
Lower garment
Sleeves, Collars, Dresses

Unit III: Introduction to Draping **(10 Lectures)**

Basic Preparation – Equipment, dress form and preparation of muslin
Basic Patterns – Basic Bodice, Basic Skirt, Sleeve Block
Pattern Making Principles

Unit IV: Designing of the Bodice **(15 Lectures)**

Dart Variation
Princess line
Added fullness
Necklines including cowl

Unit V: Design Variations **(20 Lectures)**

Midriff
Yokes
Collars – Flat, Roll and Stand collars
Skirts

Recommended Readings

1. Kiisel K. (2013), Draping: The Complete Course, Laurence King Publishing.
2. Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York.

III. CORE COURSE [CCHSC423]
ENTREPRENEURSHIP DEVELOPMENT AND ENTERPRISE MANAGEMENT

Marks: 30 (MSE: 20 Th. 1 Hr + 5 Attd. + 5 Assign.) + 70 (ESE: 3 Hrs) = 100	Pass Marks: (MSE: 17 + ESE: 28) = 45

(Credits: Theory-04, 60 Hours)

Course Description

Community development refers to the broad set of skills and institutions that local communities utilize in an effort to improve the quality of life for all residents. This Course examines the history of housing, economic trends, and social policies that have affected marginalised communities across the country, and projects the organising and capacity-building measures that community development professionals and activists have sought to improve these conditions.

Learning Objectives

1. Understand the conceptual meaning of community development and community organization
2. Become aware of community development approaches
3. Study community organization modalities in various settings
4. Learn to evaluate community development programmes

Learning Outcomes

1. Distinguish community development from community organization
2. Comprehend significant phases in community development
3. Gain knowledge on sustainability and community development concepts
4. Envisage the role of community-based organizations in community development

Course Content

Unit I: Entrepreneurship Development (15 Lectures)

Entrepreneurship- concept, definition, need and significance of entrepreneurship development in India, entrepreneurship growth process, barriers, entrepreneurship education model.
Entrepreneur-their characteristics, types, gender issues, role demands and challenges.
Entrepreneurial Motivation.
Challenges faced by Women Entrepreneurs

Unit II: Enterprise Planning and Launching (15 Lectures)

Types of enterprises classification based on capital, product, location, ownership pattern and process
Sensing business opportunities and assessing market potential; market research
Appraising of project and feasibility

Unit III: Enterprise Management and Networking (12 Lectures)

Managing Production
Organizing Production; input-output cycle
Ensuring Quality
Managing Marketing
Understanding markets and marketing
Functions of Marketing
4Ps of Marketing (same as marketing mix)
Financial Management
Meaning of Finance
Types and Sources of Finance
Estimation of project cost
Profit Assessment
Networking of Enterprises

Unit IV Setting up Small Enterprises (15 Lectures)

Counselling Centre – Diet Counselling, Parenting Counselling, Adolescent Counselling
Food Production Unit- Bakery Set up, Food Preservation unit,
Boutique, Small garment related business, Dyeing and Printing unit

Recommended Readings

1. Gundry Lisa K. & Kickul Jill R.,2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
2. Taneja & Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company

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IV. ELECTIVE COURSE-A [EPHSC424A]
PRACTICAL-A

Marks: 30 (ESE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	Pass Marks = 45

(Credits: Practical-04, 120 Hours)

Part A- Nutritional Biochemistry, Microbiology and Genetics **60 Hrs.=30 classes**

1. Qualitative test for carbohydrate, Protein and Fat
2. Sterlisation of Pots, bottle and lab glassware for food preservation.
3. Identification of the food items spoiled by bacteria, fungus, moulds and other pathogens
4. Production and evaluation of fermented dairy products – production of yogurt, curd, buttermilk and identify lactic acid bacteria
5. Identification of food borne pathogens like *E.coli*, Salmonella, from red meat and poultry
6. Evaluation of effectiveness of preservation techniques such as salting, refrigeration and sugar
7. Food adulteration testing for microbial contamination of common food (Milk, Bread, Meat)
8. Bacteriological Examination of Water.

Part B- Advanced Physiology **60 Hrs.=30 classes**

Case study of Iron deficiency Anemia, investigations and diagnosis. Blood indices.

1. Measurement of Blood pressure by using sphygmomanometer.
2. Demonstration of Reflex action.
3. Demonstration of procedures of clinical examination to see for pallor, jaundice, oedema and dehydration and their importance.
4. Basic First aid procedures, CPR, Burns,
5. Visit to a DOTS centre.
6. Preparation of a project on Antenatal Care for women.
7. Preparation of a project on various contraceptive devices and understanding their basic mechanism of action.

Recommended Readings

1. Roberts Diane & Greenwood Melody "Practical Food Microbiology"
2. Shen Cangliang & Zhang Yifan, Food Microbiology: Laboratory for the Food Science Student: A Practical Approach"
3. "Analytical Food Microbiology: A Laboratory Manual" by John Wiley & Sons:
4. Sehgal Shalini et. al. Food Microbiology: A Practical Approach
5. Neelima et. al. Laboratory Manual of Food Microbiology"**.**
6. Bell Chris, Neaves Paul & Williams Anthony P**.,** Food Microbiology and Laboratory Practice" by

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OR ELECTIVE COURSE-B [EPHSC424B]

PRACTICAL-B

Marks: 30 (ESE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	**Pass Marks = 45**

(Credits: Practical-04, 120 Hours)

Part A- Gender, Society and Human Development **60 Hrs.=30 classes**

1. Analysis of gender differentials using development indicators
2. Gender based analysis of media with special reference to portrayal of women
3. Case studies for programs and campaign for women's development.
4. Critically analyse with Laws and Acts for Women in India
5. Observe the representation of masculinity in Indian movies
6. Submit report after visiting local Women's organization and LGBTQAI organizations

Part B- Parenting in Early Childhood **60 Hrs.=30 classes**

1. Preparing teaching material, kit and presentation.
2. Preparing different types of Puppets, Song Booklets.
3. Music – Singing, listening and rhythmic activities.
4. Language based activities – Story listening and telling, Poetry, Group discussion such as show and tell and question-answer.
5. Arranging workshop with children through art and Creation activities.
6. Designing – Leaflets/ Pamplets/ Cover pages/ Posters for children's activities.
7. To study Curriculum and Management of Pre-primary standard children in local area.
8. Case study regarding problems, behaviour of a child.

Recommended Reading

1. Chakravarti, U. (2018). *Gendering caste: Through a feminist lens.* New Delhi: Sage.
2. Chatterjee, P. (2002). *Community, gender and violence*. Delhi: Permanent Black.
3. Das, B. (2009). *Gender issues in development.* Jaipur: Rawat Publications.
4. Goel, A, Kaur, A and Sultana, A. (2006). *Violence against women: Issues and perspectives*. New Delhi: Deep& Deep Publishers.
5. Dasgupta, S., Sinha, D., & Chakravarti, S. (2011). *Media, gender, and popular culture in India: Tracking change and continuity*. New Delhi: Sage Publishing India.
6. Kannabiran, K. (Ed.). (2013). *Women and law: Critical feminist perspectives*. New Delhi: Sage.
7. Kumar, S. (2019). *LGBT Community in India: A study*. New Delhi: Educreation Publishing

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OR ELECTIVE COURSE-C [EPHSC424C]
PRACTICAL-C

Marks: 30 (ESE: 20 Viva + 5 Attd. + 5 Record) + 70 (ESE Pr: 6 Hrs) = 100	**Pass Marks = 45**

(Credits: Practical-04, 120 Hours)

Part A-Dyeing, Printing and Finishing of Textiles **60 Hrs=30 Classes**

1. Preparation of fabric for dyeing and printing a. Scouring, desizing, bleaching
2. Dyeing: Dyeing of yarn and fabric with different classes of dyes by varying the temperatures, %shade and M: L ratio.
3. Dyeing of cotton yarn and fabric with direct dyes, vat and reactive dyes.
4. Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
5. Dyeing of polyester yarn and fabric with disperse dyes.
6. Making designs for a. Blocks, stencil and screen
7. Preparation of a. Blocks, stencil and screen
8. Printing of fabrics using:
    a. Direct style - block, stencil and screen
    b. Resist style - Tie & Dye, Batik
        i. Natural starch
        ii. Synthetic starch
9. Product development

Part B-Pattern Making and Draping **60 Hrs=30 Classes**

1. Development of the Bodice Block and its variations through Flat Pattern Making and Draping
    ii. Dart manipulation
    iii. Contouring
    iv. Fullness Principles
1. Skirts, Sleeves and Collars (two each), through draping
2. Development of basic patterns (Bodice & Skirt) Block through draping
3. Adaptation and Construction of any two designs by draping

Recommended Readings

1. Chavan, R.B. (1979). Textile Printing (Book of Papers) Department of Textile Technology, IIT New Delhi.
2. Giles, G.H. (1974) Laboratory Course in Dyeing Hart & Clough; Bradford; England Kale D.G. (1976) Principles of Cotton Printing. Maharaja Brothers Ahmedabad.
3. Saraiya, N.S. & Gupta P.C. Technology and Management of Printing.
4. Shenai, V.A. (1979). Chemistry of Dyes and Principles of Dyeing. Sevak Publications Mumbai
5. Trotman E.R. (1975). Dyeing and Chemical Technology of Textile Fibre. Charles Griffin & Co. Ltd., London
6. Wynne Andrea (1997). Textiles. The Motivate Series Mcmillain Education Ltd., London.
7. Vilensky L.D. & Gohil E.P. G. (1987) Textile Science, An explanation of fiber properties. CBS Publishers & Distribution, Delhi.
8. Kiisel K. (2013), Draping: The Complete Course, Laurence King Publishing.
9. Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York

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V. PROJECT [PRHSC425]

DISSERTATION/ PROJECT/ TEACHING APTITUDE

Marks: 100 (ESE Pr: 6 Hrs) = 100	Pass Marks = 45

(Credits: Theory-04, 120 Hours)

Guidelines to Examiners for <u>End Semester Examination (ESE):</u>
Evaluation of project dissertation work may be as per the following guidelines:
Project model (if any) and the Project record notebook = 70 marks
Project presentation and viva-voce = 30 marks

The evaluation of the dissertation will be done in 100 marks (70 marks + 30 marks of the session). The sessional component will be evaluated by the concerned supervisor.

The end term evaluation (70 marks) will be done by a board of examiners. The end term evaluation in 70 marks will include the literary and scientific presentation of the dissertation and the performance in the viva-voce.

The overall project dissertation may be evaluated under the following heads:

- *Motivation for the choice of topic*
- *Project dissertation design*
- *Methodology and Content depth*
- *Results and Discussion*
- *Future Scope & References*
- *Participation in an Internship programme with a reputed organisation*
- *Application of Research techniques in Data collection*
- *Report Presentation*
- *Presentation style*
- *Viva-voce*

Course Objectives:

1. To develop research skills and scientific inquiry through independent investigations on a topic/ problem.

Course Outcomes:

On successful completion of this course, the student should know:

1. About conducting research with approved stages of research methodology.
2. A dissertation will enable students to further investigate and navigate different aspects and events of life through research.

PROJECT WORK

Each student has to submit three copies of hard-bound dissertation work (along with the raw data), duly forwarded by the HOD of the Department concerned. The forwarded copies will be submitted to the concerned University Department, Ranchi University, Ranchi for evaluation (one month before the viva voce examination).

The paper may involve:

a) Laboratory research/ Field work/ Lab work related to the project.
b) Survey research, Case Study or any other type of research related to the subject.
c) One Large study/ Experiment or several studies/ Experiments, depending on the objectives of the research.
d) The writing of the dissertation must be within 80 to 100 pages, including references and appendices.
e) Content must be typed in Font: Times New Roman with Line Spacing: 2.0 and Font Size 12 points.

The project work will be presented in a seminar on the assigned topic in the concerned department of Ranchi University, Ranchi, followed by an open viva voce examination.

Topics: As decided by the Supervisor/Guide

Teaching Aptitude: As an alternative to a dissertation, only a few selected meritorious candidates may be assigned the responsibility to teach the pre-decided topics in selected colleges. The performance may be evaluated based on the structured feedback for the candidate.
