



SNDT Women's University, Mumbai

**Bachelor of Science
(Home Science-Human Ecology and
Community Science)**

**B. Sc.
(Home Science-Human Ecology and Community
Science)**

As per NEP 2020

**Syllabus
(2024-2025)**

Terminologies

| Abbreviation | Full-form | Remarks | Related to Major and Minor Courses |
|------------------|--|--|---------------------------------------|
| Major (Core) | Main Discipline | | |
| Major (Elective) | Elective Options | | related to the Major Discipline |
| Minor Stream | Other Disciplines (Inter/Multidisciplinary) not related to the Major | either from the same Faculty or any other faculty | |
| OEC | Open Elective Courses/ Generic | | Not Related to the Major and Minor |
| VSC | Vocational Skill Courses | | Related to the Major and Minor |
| SEC | Skill Enhancement Courses | | Not Related to the Major and Minor |
| AEC | Ability Enhancement Courses | Communication skills, critical reading, academic writing, etc. | Not Related to the Major and Minor |
| VEC | Value Education Courses | Understanding India, Environmental science/education, Digital and technological solutions, Health & Wellness, Yoga education, sports, and fitness | Not Related to the Major and Minor |
| IKS | Indian Knowledge System | I. Generic IKS Course: basic knowledge of the IKS II. II. Subject- Specific IKS Courses: advanced information about the subject: part of the major credit | Subject Specific IKS related to Major |
| OJT | On-Job Training (Internship/Apprenticeship) | corresponding to the Major Subject | Related to the Major |
| FP | Field projects | corresponding to the Major Subject | Related to the Major |
| CC | Co-curricular Courses | Health and Wellness, Yoga education sports, and fitness, Cultural Activities, NSS/NCC and Fine/ Applied/Visual/ Performing Arts | Not Related to the Major and Minor |
| CE | Community Engagement and service | | Not Related to the Major and Minor |
| RP | Research Project | corresponding to the Major Subject | Related to the Major |

Programme Template:

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| Degree | | B.Sc. |
| Programme | | Home Science - Human Ecology and Community Science |
| Preamble (Brief Introduction to the programme) | | <p>Home-Science is an applied science. It is interdisciplinary in nature as it derives its contents from pure sciences; Social sciences and Humanities to form a discipline. It focuses on better quality of life for individual, family and society through enhancement of resources and productivity. The recent announcement of "Self Reliant India" gives new opportunities through education to create trade, investment and employment through innovation and incubation. The 6 major areas of this specialization are: Communication & Extension, Foods & Nutrition, Human Development, Resource management, Textiles & Clothing and Human Ecology & Community Science. There is scope for career opportunities and higher studies and research in each of the areas. A variety of teaching methods are used with emphasis on practical training.</p> |
| Programme Specific Outcomes (PSOs) | | After completing this program , learner will- |
| | 1. | Acquire knowledge about human ecology and Community Science in the context of five core subjects: Food Science and Nutrition, Human Development, Textile Science, Family Resource Management and Extension Education. |
| | 2. | Apply facts and principles to strengthen the chosen profession in sectors like retail, hospitality, health care, child care, care of elderly, food industry, Non-Governmental Organizations (NGOs), infrastructure, banks, educational institutions: Balwadi, teacher training centers, schools, colleges and Universities, training and more. |
| | 3. | Use aesthetics to design the product be it a garment, a dish, a prop, an article, office space, home, and many more. |
| | 4. | Participate with government for setting guide-lines and evaluation criteria for running crèche, Anganwadi, Balwadi, Pre- primary schools, training centers for Extension workers, teachers and more such centers where graduates of this discipline are trained. |

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| | 5. | Develop basic efficiencies and entrepreneurial skills for extensive career opportunities. |
| | 6. | Empower women citizens with ethics critical thinking, efficient communication skills and social interactions to become agent for sustainable life. |
| Eligibility Criteria for Programme | | 10+2 with Arts, Science, Commerce, M.C.V.C. and equivalent board |
| Intake | | 120 |

Structure with Course Titles**B.Sc. (Home Science - Human Ecology and Community Science)**

| SN | Courses | Type of Course | Credits | Marks | Int | Ext |
|--------------------|--|----------------|-----------|------------|------------|------------|
| Semester I | | | | | | |
| 10031001 | Introduction to Human Ecology and Community Science - I | Major (Core) | 2 | 50 | 50 | 0 |
| | | Major (Core) | 2 | 50 | 0 | 50 |
| | | Major (Core) | 2 | 50 | 50 | 0 |
| 10431011 | Applied Science | OEC | 4 | 100 | 50 | 50 |
| 10631001 | Introduction to Human Ecology and Community Science (Pr) | VSC | 2 | 50 | 50 | 0 |
| 10731001 | Professional and Presentation Skills (Pr) | SEC | 2 | 50 | 50 | 0 |
| | English I | AEC (English) | 2 | 50 | 0 | 50 |
| | Inception of Indian Knowledge System | IKS (Generic) | 2 | 50 | 0 | 50 |
| | Introduction to Indian Constitution | VEC | 2 | 50 | 0 | 50 |
| | Co-curricular activities | CC | 2 | 50 | 50 | 0 |
| | | | 22 | 550 | 300 | 250 |
| Semester II | | | | | | |
| 20031011 | Introduction to Human Ecology and Community Science - II | Major (Core) | 2 | 50 | 0 | 50 |
| | | Major (Core) | 2 | 50 | 50 | 0 |
| | | Major (Core) | 2 | 50 | 0 | 50 |
| | | VSC | 2 | 50 | 0 | 50 |
| | | VSC | 2 | 50 | 0 | 50 |
| 20431011 | Human Physiology | OEC | 4 | 100 | 50 | 50 |
| 20731001 | Life Skills (Pr) | SEC | 2 | 50 | 50 | 0 |
| | English II | AEC (English) | 2 | 50 | 50 | 0 |
| | Environment Awareness | VEC | 2 | 50 | 0 | 50 |
| | Co-curricular activities | CC | 2 | 50 | 50 | 0 |
| | | | 22 | 550 | 250 | 300 |

Exit with UG Certificate with 4 extra credits (44 + 4 credits)

Course Syllabus

Semester I

1.1 Major (Core)

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| Course Title | Introduction to Human Ecology and Community Science – I (Theory) |
| Course Credits | 2 |
| Course Outcomes | After going through the course, learners will be able to |
| | 1. Understand the concept of Home Science |
| | 2. Integrate learning across role of Home Science |
| | 3. Acquire knowledge about human ecology and Community Science |
| | 4. Appreciate and analyze the scope for career opportunities and higher studies and research in each of the areas. |
| Module 1 (Credit 1) - Introduction to Home Science | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none">1. Acquire knowledge about basics of Home Science and its core subjects2. Understand relevance of Human Ecology & Community Science in society |
| Content Outline | <p>Unit 1: Introduction to Home Science</p> <ul style="list-style-type: none">• Definition• Concept• History• Branches <p>Unit 2: Development of Human Ecology & Community Science & its Relevance to:</p> <ul style="list-style-type: none">• Family• Society• Commercial & technological revolution• Nation |
| Module 2 (Credit 1) - Introduction to Human Ecology and Community Science | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none">1. Gain in depth understanding about Human Ecology and Community Science2. Analyze career opportunities in Human Ecology & Community Science |

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| Content Outline | <p>Unit1: Introduction to Human Ecology and Community Science</p> <ul style="list-style-type: none"> • Definition of Human Ecology • Relation with other discipline • Scope of Human Ecology and Community Science • Relevance to quality life <p>Unit 2: Career opportunities in Human Ecology & Community Science</p> <ul style="list-style-type: none"> • As an entrepreneur • Industry • Professional practitioner • Research & development • Government, Semi Government and Private Sector |
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1 Introduction to Home Science

- Assignment on relevance of Human Ecology and Community Science to quality life

Module 2 Career opportunities in Home Science and Human Ecology & Community Sciences

- Project and presentation on Career opportunities in Home Science and Human Ecology & Community Sciences

References:

1. A Textbook of Home Science. (1990). Rev. Edn Publisher : Orient BlackSwan
2. Bhargav Priya (2004). Teaching of Home Science. Commonwealth Publishers
3. Jaiswal, A. (2017). Concept of human ecology: Human Ecology PG e-Pathsala, (An Ministry of Human Resource Development Project under its National Mission on Education through ICT (NME-ICT)
4. Mullick Premlata. (1995). Textbook of Home Science. Kalyani Publishers
5. Human Ecology and Family Sciences Part II Revised Edition February 2023 Publication by the Secretary, National Council of Educational Research and Training

1.4 Open Elective Course

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| Course Title | Applied Science (Theory & Practical) |
| Course Credits | 4 (2+2) |
| Course Outcomes | After going through the course, learners will be able to |
| | 1.Understand the importance of science in daily life |
| | 2.Develop analytical attitude. |
| | 3.Acquire knowledge to develop scientific way of thinking. |
| | 4.Impart knowledge to apply. |
| Module 1 (Credit 1) - Applied Chemistry | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none"> 1.Inculcate scientific temper in the students and develop scientific, analytical attitude. 2.Develop to understand the importance of knowledge of chemistry with respect to food, textiles, medicine, harmful chemicals & industries. 3.Understand the use and importance of chemistry in day to day life. |
| Content Outline | <p>Review of Basic Chemistry</p> <ul style="list-style-type: none"> ● Important definitions ● Difference between Organic & Inorganic compounds ● Functional groups ● Bohr's model of atom ● Atomic number & electronic configuration <p>2) Soaps & Detergents</p> <ul style="list-style-type: none"> ● Saponification reaction ● Cold and hot process of soap making ● Difference between soaps and detergents ● Cleansing action <p>3) Drugs and Pharmaceuticals</p> <ul style="list-style-type: none"> ● Properties of good drug ● Meaning of important terms with e.g. Analgesic, Antipyretic, Antacid, Antibiotic, Diuretic, anti-inflammatory, Laxatives, Sulfa drugs ● Common drugs- use and side effects of Aspirin, Paracetamol, Sulphanilamide <p>4) Dyes</p> <ul style="list-style-type: none"> ● Definition, important terms like chromophore, Auxochrome, chromogen ● Classification based on application ● e.g. and uses of different dyes in food, textile, medicine, laboratory, etc. & their hazards <p>5)Polymers</p> <ul style="list-style-type: none"> ● Introduction ● Define-monomer, polymer, polymerization Some important polymers and their structure & uses polyethylene, polyester, polyvinyl chloride |

| Module 2 (Credit 1) - Applied Biology | |
|--|--|
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none"> 1.Acquire the basic knowledge of the fundamentals of biological sciences. 2.Apply the knowledge of the biological processes to everyday life. |
| Content Outline | <p>Cell</p> <ul style="list-style-type: none"> • As the basic unit of life • Types of cells • Salient features of animal cell <p>Introduction to Micro-organism</p> <ul style="list-style-type: none"> • Bacteria-Structure, Classification based on response to O₂ , nutrition, Importance of bacteria • Fungi- Morphology of molds and yeasts, classification, beneficial and harmful aspects • Virus- Morphology, Classification based on nucleic acid content and hosts <p>Genetics and Heredity</p> <ul style="list-style-type: none"> • Origin of the term gene • Chemical basis of heredity- organization of human genome, sex determination, monogenic and polygenic traits, patterns of inheritance- autosomal, recessive and sex-linked inheritance • Mutation and its type, abnormalities in chromosome number <p>Genetic Engineering and Biotechnology</p> <ul style="list-style-type: none"> • Definition of the terms • Methodology of gene cloning-in brief <ol style="list-style-type: none"> 1. Application of genetic engineering in plants- insects & virus resistant plants, plants with improved characters. 2. Application in human medicine- pharmaceuticals, thallemia ontogenesis, interferon, production of growth hormone, human insulin ELISA. |
| Module 3 (Credit 1) - Applied Chemistry (Practical) | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none"> 1.Develop in students the ability to work systematically in laboratory. 2.Develop in them the skill for simple chemical procedures. |
| Content Outline | <ol style="list-style-type: none"> 1) Introduction to chemistry lab & apparatus. 2) Neutralization of strong acid with strong base (HCl & NaOH) 3) Neutralization of weak base with strong acid (Na₂CO₃& H₂SO₄) 4) Neutralization of weak acid with strong base (Oxalic acid & NaOH) 5) Oxidation- reduction reaction (Oxalic acid & KMnO₄) 6) pH determination of various solutions: acid, base and neutral (two household example for each) 7) Preparation of soap bar 8) Viscosity measurement: water, oil, shampoo by Oswald's viscometer |
| Module 4 (Credit 1) - Applied Biology (Practical) | |

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| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none"> 1. Acquire knowledge of various micro-organisms and the required skills to study them. 2. Apply this knowledge in day-to-day life. |
| Content Outline | <ol style="list-style-type: none"> 1) Study and care of microscope 2) Observation of motility of bacteria by Hanging drop method (<i>E. coli</i> / <i>Proteus</i>) 3) Observation of bacteria by the simple: monochrome staining method (Hay infusion culture or milk) 4) Gram staining of bacteria in buttermilk 5) To observe common pathogenic bacteria (any 6 – permanent slides) 6) Observation of fungi on different food materials 7) To observe common pathogenic protozoa (permanent slides of <i>Entamoeba histolytica</i> and <i>Plasmodium vivax</i>) 8) Study of medicinally important plants (projects) |

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1 Applied Chemistry

Assignment / Quiz

Module 2 Applied Biology

Assignment / Quiz

Module 3 Applied Chemistry (Pr)

Daily work Journal Performing experiment

Module 4 Applied Biology (Pr)

Daily work Journal Performing experiment

References:

1. George A. (1984): Shreeve's Chemical Process Industries
2. Glazer A. Na Ni Baido H (1995) Microbial Biotechnology W.H. Freeman Company.
3. K. Venkatraman (1952): The Chemistry of Synthetic Dyes, Vol. I, Academic Press, New York.
4. Kent S.A. (1974): Riegel's Handbook of Industrial Chemistry.
5. Loewy A. and Sckevilz (1995) Cell Structure and Functions, Hold, New-York
6. Nicholl D.S.T. (1994) An Introduction to Genetic Engineering-Cambridge University, Press.
7. Pelczar N.S, Chan F.C.S. Krieg N.R.(1998) Microbiology, Tata Mc Grow Hill.
8. Person D. (1983): The Chemical Analysis of Food, Churchill Livings Tone, Edunburgh, London, New York.
9. Porter K.R., Bonneville M.A. (1964) Fine Structure of Cells and Tissues, Lea & Blanchard, Philadelphia.
10. Prof. V. A. Shenal (1991): Introduction to the Chemistry of Dyestuffs, sevs Publications.
11. Rao C.V. (1994) Foundation to Mol. Biol, R. Chenda. Co. Publisher
12. Thomsen E.G. (1985): Modern Cosmetics Universal publishing corp
13. Zhdanov L.S. (1980): Physics for the Technician, MIR Publications. Moscow.

1.5. Vocational Skill Course (VSC)

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| Course Title | Introduction to Human Ecology and Community Science (Practical) |
| Course Credits | 2 |
| Course Outcomes | After going through the course, learners will be able to |
| | 1. Apply and analyze basic skills in textile and clothing |
| | 2. Apply and analyze basic skills in Food Science and Nutrition |
| | 3. Evaluate basic skills in the area of Human Ecology and Community Science |
| Module 1 (Credit 1) - Skills in Textile and clothing | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none">1. To identify different types of fibers2. Apply knowledge of care and maintenance of clothes3. Acquaint with basic stitching skills4. Apply basic skills for garment finishing |
| Content Outline | <ul style="list-style-type: none">• Basic skills in Human Ecology and Community Science<ul style="list-style-type: none">▪ Identification of fibers▪ Care and maintenance of clothes▪ Basic Stitching skills▪ Basic skills of garment finishing |
| Module 2 (Credit 1) - Skills in Food Science and Nutrition | |
| Learning Outcomes | After learning the module, learners will be able to |
| | <ol style="list-style-type: none">1. Apply knowledge of various methods in cooking2. Create decorative vegetables and fruit cutting |
| Content Outline | <ul style="list-style-type: none">• Cooking methods: Boiling, Baking, Grilling, Roasting, Steaming, Poaching, Broiling, Frying• Decorative vegetables and fruit cutting |

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1 Skills in Textile and clothing

- Project on basic stitching
- Project on garment finishing

Module 2 Skills in Food Science and Nutrition

- Preparing and presenting one recipe using cooking method
- Preparing Decorative vegetables and fruit cutting

References:

14. Gohl E.P. and Velensky L.D. (1983) Textile Science, Melbourne: Longman Cheshire Pvt. Ltd.
15. Kefgan & Phyllis T. (2000) Individuality in Clothing Selection and Personal
16. Mudambi, S.R. and M.V. Rajgopal (2006). Fundamentals of Foods and Nutrition. Wiley Eastern Ltd.
17. Shadaksharaswamy, M, Manay, S, (2010): Food facts and Principles, 3rd Edition, New Age International Publishers
18. Srilakshmi, B: (2010). Food Science, 5th Edition, New Age International Pvt Ltd Publishers
19. Zarpakar K.R. (1999). Zarpakar system of cutting. Navneet Publications (India)Ltd

1.6. Skill Enhancement Course (SEC)

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| Course Title | Professional and Presentation Skills (Practical) |
| Course Credits | 2 |
| Course Outcomes | <p>The course will enable the students to:</p> <ol style="list-style-type: none"> 1. Acquire professional skills to pursue in a successful career path 2. Apply knowledge for preparing professional resume, interviews and group discussions 3. Acquire presentation Skills 4. Design and develop effective presentation for professional purposes 5. Function as a better team member for collaborative work |
| Module 1 (Credit1) – Professional Skills | |
| Learning Outcomes | This will enable students to: |
| | 1. Prepare their resume in an appropriate format |
| | 2. Actively participate and perform in a practice interview |
| | 3. Embrace good listening skills |
| | 4. Perform appropriately and effectively in group discussions |
| | 5. Function manners and etiquette in social and cultural settings |
| Content Outline | <p>Resume Skills Interview Skills Social and Cultural Etiquette Listening Skills Group Discussion Skills Collaborative Skills</p> |
| Module 2 (Credit1) – Presentation Skills | |
| Learning Outcomes | This will enable students to: |
| | 1. Acquire knowledge related with the purpose and skills of presentation |
| | 2. Develop various skills required for presentation |
| | 3. Apply presentation skills for personal professional development |
| | 4. Create effective presentation for professional usage. |

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| Content Outline | Purpose Types: Presentations, Skills Stages of presentation Factors affecting presentation Tools for presentation Handling Open Discussion Characteristics of good presenter Ways to improve presentation |
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module - 1

Resume writing Mock Interview Group Discussion

Module - 2

Preparing presentation Individual Presentations

References:

1. Ellen. M. G and Loewy. D, (2022) "The Essentials of Business Communication" Cengage Learning, Australia
2. Locker. K and Kaczmarek. S., (2014) -"Business Communication: Building Critical Skills". ISBN-9781259089091
3. Murphy. H, Hildebrandt. H, and Thomas. J.(2011) - "Effective Business Communication". McGraw-Hill, New York
4. Chesebro. J. L and Goss. T.P. (2018): "Professional Communication at Work: Interpersonal Strategies for Career Success". Routledge, US
5. Barun K. Mitra, "Personality Development & Soft Skills", Oxford Publishers, Third impression,2017.

Semester II

2.1 Major (Core)

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| Course Title | Introduction to Human Ecology and Community Science – II (Theory) |
| Course Credits | 2 |
| Course Outcomes | After going through the course, learners will be able to |
| | 1. understand and analyze the significance of nutrition, health and well-being, growth and development, education and communication, apparel and management suggestions and resources necessary to enhance the quality of life of self, family, community and society. |
| | 2. Develop a holistic understanding of life in the home and outside. |
| Module 1 (Credit 1) - Introduction to Food Science, Nutrition and Human Development | |
| Learning Outcomes | After learning the module, learners will be able to |
| | 1. Understand Meaning, Scope and Area of specialization in Food Science & Nutrition 2. know the meaning, Scope and Area of specialization in Human Development |
| Content Outline | Unit 1: Meaning, Scope and Area of specialization in Food Science & Nutrition <ul style="list-style-type: none">• Food Science• Nutrition• Meal Management in Health and Disease• Food Service Management• Food Safety, Sanitation and Hygiene• Public Health Nutrition Unit 2: Meaning, Scope and Area of specialization in Human Development <ul style="list-style-type: none">• Early Childhood Care & Education• Human Development• Marriage and Family studies• Guidance and counseling |
| Module 2 (Credit 1) - Introduction to Textile Science, Resource Management and Extension & Communication | |
| Learning Outcomes | After learning the module, learners will be able to |
| | 1. Understand Meaning, Scope and Area of specialization in Textile science; Resource management and Extension and communication |

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| Content Outline | <p>Unit 1: Meaning, Scope and Area of specialization in Textile Science</p> <ul style="list-style-type: none"> • Textile Science • Clothing and apparel • Accessories design • Fabric ornamentation • Fashion Designing <p>Unit 2: Meaning, Scope and Area of specialization in Resource Management</p> <ul style="list-style-type: none"> • Resource Management • Interior Designing • Entrepreneurship Development • Interior designing <p>Unit 3: Meaning, Scope and Area of specialization in Extension and Communication</p> <ul style="list-style-type: none"> ▪ Extension ▪ Media & Communication ▪ Community Development ▪ Programme Planning |
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1 Introduction to Food Science, Nutrition and Human Development

- Assignment on areas of specialization and its scope

Module 2 Introduction to Textile Science, Resource Management and Extension & Communication

- Assignment on areas of specialization and its scope

References:

1. A Textbook of Home Science. (1990) .Rev. Edn Publisher : Orient BlackSwan
2. Bhargav Priya and Chand Tara (2018). Principles of Home Science. Commonwealth Publishers.
3. Mullick Premlata. (1995). Textbook of Home Science. Kalyani Publishers
4. Sharma S. R. and Kaushik Vijay. (2002). Encyclopedia of Home Science. Anmol Publication PVT. LTD.

2.6 Open Elective Course

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| Course Title | Human Physiology (Theory & Practical) |
| Course Credits | 4 (2+2) |
| Course Outcomes | After going through the course, learners will be able to |
| | 1. Understand the basic structure and functions of the human body |
| | 2. Acquainted with common diseases/disorders of each system |
| Module 1 (Credit 1) - Human Physiology I | |
| Learning Outcomes | After learning the module, learners will be able to |
| | 1. Introduce students to basic terminologies |
| | 2. Understand the basic structure of human body |
| | 3. Understand the functioning of cardio vascular, respiratory, gastro intestinal |
| | 4. Brief knowledge about common diseases affecting each system. |
| 5. To create awareness about interdependence and co-ordination between different systems of the body for normal functioning. | |
| Content Outline | <p><u>INTRODUCTION</u></p> <ul style="list-style-type: none"> ● General terms- anatomy, physiology, symmetrical arrangement, anatomical position. Median plane / lateral plane, internal/ external, superficial /deep, superior/ inferior, anterior/posterior. ● Basic human tissues. ● Introduction to human skeleton. ● Structure of bone and cartilage. ● Classification of various types of muscle. <p><u>BLOOD AND LYMPHATIC SYSTEM</u></p> <ul style="list-style-type: none"> ● Physical characteristics of blood ● Blood volume, composition of plasma and functions of plasma protein ● RBC formation and functions ● Information about anaemia and thalessemia. ● Blood groups, their importance , Rh-incompatibility. ● WBC- types, functions, importance of CBC ● Platelets and mechanism of coagulation ● Lymph and lymphatic system, spleen and its functions. <p><u>HEART</u></p> <ul style="list-style-type: none"> ● Its structure and circulation of blood. ● Cardiac cycle ● Information about hypertension & ischemic heart disease |

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| | <p><u>RESPIRATORY SYSTEM</u> Respiratory organs-nose, sinuses, larynx, trachea, bronchi lung brief structure and functions. Mechanism of respiration, factors affecting efficacy of respiration. Various lung volumes and capacities. Common diseases- TB, asthma, bronchitis, cough, pneumonia sinusitis.</p> <p><u>GASTRO - INTESTINAL SYSTEM</u> Oral cavity, tonsils, pharynx, oesophagus, stomach small and large intestine - brief structure and functions. Liver, gall bladder, pancreas structure and functions. Common disorders- Dental caries, vomiting. diarrhoea, constipation. Hyperacidity, diabetes.</p> |
| Module 2 (Credit 1) - Human Physiology II | |
| Learning Outcomes | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> 1. Understand the functioning of excretory system and brief knowledge about common diseases affecting this system. 2. Know more about the nervous system 3. Know more about the endocrine system 4. Have knowledge of reproductive system and importance of reproductive health |
| Content Outline | <p><u>EXCRETORY SYSTEM</u></p> <ul style="list-style-type: none"> ● Structure and function of organs of urinary system (in brief). ● Mechanism of urine formation ● Common diseases- urinary tract infection and renal stones. ● Structure and function of skin ● Regulation of body temperature ● Common disorders - acne dandruff and burns. <p><u>NERVOUS SYSTEM</u></p> <ul style="list-style-type: none"> ● Classification of nervous system ● Structure and functions of different parts of brain, spinal cord and reflex action. ● Eye - structure and mechanism of vision ● Common problems - conjunctivitis, cataract. ● Ear - structure and mechanism of hearing <p>Common problems - deafness, vertigo, motion sickness</p> <p><u>ENDOCRINE SYSTEM</u></p> <ul style="list-style-type: none"> ● Listing of endocrine glands and their location ● Functions of pituitary, thyroid, parathyroid and adrenal. |

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| | <p><u>REPRODUCTIVE SYSTEM</u> <u>FEMALE REPRODUCTIVE SYSTEM</u></p> <ul style="list-style-type: none"> ● Structure ● Menstrual cycle ● Fertilization ● Breast- Structure, function, importance of breast hygiene and breast feeding ● Physiological changes in pregnancy ● Importance of ante-natal care. <p><u>MALE REPRODUCTIVE SYSTEM</u></p> <ul style="list-style-type: none"> ● Structure ● Sex education ● Contraception and infertility <p>Sexually transmitted diseases-syphilis, gonorrhoea, AIDS</p> |
| Module 3 (Credit 1) - Human Physiology I Practical | |
| Learning Outcomes | After learning the module, learners will be able to |
| | 1. Introduce the students to human skeleton and enable them to identify various bones in the body |
| | 2. perform simple clinical tests like estimation of haemoglobin and blood group and blood pressure |
| Content Outline | <ul style="list-style-type: none"> ● Study of human skeleton and identification of bones. ● Estimation of hemoglobin ● Estimation of blood groups, ● Demonstration of peripheral blood smears. Importance of complete blood count. ● Measurement of pulse rate and blood pressure. ● Discussion of normal components of urine. Test for abnormal components like sugar, albumin and acetone and discussion on diseases in which they are found. |
| Module 4 (Credit 1) - Human Physiology II Practical | |
| Learning Outcomes | After learning the module, learners will be able to |
| | 1. Utilize the knowledge learnt to administer first aid for common emergency situations. |
| | 2. Acquaint the students with the basic principles of home nursing. |
| Content Outline | <ul style="list-style-type: none"> ● FIRST AID ● -Definition, aims, qualities of first aider, contents of first aid box. ● -Different types of bandages and bandaging techniques. ● WOUNDS ● -Classification, dressing and management of hemorrhage- basic principles and discussion about bleeding from various parts of body. |

- **FRACTURE**
- -Types, symptoms, management.
- Sprain and dislocation
- **First Aid for**- foreign bodies in eye, ear, nose, skin.
- **First Aid for** - fainting, burns, heat stroke, asthma, convulsions, electric shock and heart attack.
- **First Aid for** - common poisoning, dog bite, snake bite, bee-sting and scorpion bite.
- **BASIC PRINCIPLES OF HOME NURSING-**
- Measuring body temperature, steam inhalation, body sponging, taking care of bed ridden patient and enema.
- Cardio pulmonary resuscitation

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1

Multiple choice questions, Short notes, Display, Quiz

Module 2

Multiple choice questions, Short notes, Display, Quiz, PPT Presentation

Module 3 Practical exam

Module 4 Practical exam

References:

1. Guyton, A.C., Hall J.E.- Textbook of Medical Physiology - Prism Books Pvt Ltd., Bangalore.
2. Concise Medical Physiology - Chaudhari.
3. API Text Book of Medicine.
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5. Winwood - Sear's Anatomy and Physiology for Nurses - London, Edward Arnold.
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2.7 Skill Enhancement Course

| | |
|---|---|
| Course Title | Life Skills (Practical) |
| Course Credits | 2 |
| Course Outcomes | The course will enable the students to: <ol style="list-style-type: none"> 1. Identify universal human values 2. Develop life skills 3. Apply life skills consciously to be a good human being |
| Module 1 (Credit1) – Introduction to Life Skills | |
| Learning Outcomes | This will enable students to: |
| | 1. Understand meaning and significance of life skills |
| | 2. Gain Self Competency and Confidence |
| | 3. Practice Emotional and social Competency |
| | 4. Implement and analyze various techniques for developing life skills |
| Content Outline | Meaning and significance of life skills Life skills identified by WHO: Decision making, creative thinking, communication, self-awareness, coping with emotions, problem solving, critical thinking, interpersonal skills, empathy, coping with stress Techniques for developing life skills |
| Module 2 (Credit1) –Human values | |
| Learning Outcomes | This will enable students to: |
| | 1. Gain Knowledge about universal human values |
| | 2. Understand the importance of human values in personal, social, professional and national life. |
| | 3. Instill human values in their core personality |
| | 4. Apply human values and bring awareness in their surrounding |
| Content Outline | Human values (In brief): Love and Compassion, Truth, Non-violence , Righteousness, Peace, Service, Renunciation (Sacrifice), Constitutional Values, Justice, and Human Rights |

Assignment/Activities towards Comprehensive Continuous Evaluation (CCE):

Module - 1

Conducting a Case study with predesigned questionnaire and its presentation

Module - 2

Analyzing and presenting a case study by identifying different human values
(Recognized personalities who followed and practiced human values)

References:

1. R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Human Values and Professional Ethics.
2. Bhatia, R. & Bhatia, A (2015) Role of Ethical Values in Indian Higher Education.
3. A Nagraj, 1998, JeevanVidyaEkParichay, Divya Path Sansthan, Amarkantak.
4. A N Tripathy, 2003, Human Values, New Age International Publishers.
5. Shiv Khera, You Can Win, Macmillan Books, New York, 2003.
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8. Larry James, "The First Book of Life Skills"; First Edition, Embassy Books, 2016.
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