

**General Elective (GE) courses offered by**  
**Department of Zoology**  
**B.Sc. Semester III**  
**Name of the course: Essential First Aid :**  
**Techniques and Emergency Management**

[ 2 lectures per week \* 15 weeks = 30 Lectures ]

**Course Description:**

This course provides comprehensive training in essential first aid techniques and emergency management strategies. Participants will learn the fundamental principles of first aid, including assessment, intervention, and stabilization of common medical emergencies.

**Course Objectives:**

1. To introduce participants to the concept of first aid and its importance in emergency situations.
2. To equip participants with the necessary skills to assess and respond to medical emergencies promptly and effectively.
3. To familiarize participants with techniques for managing common medical emergencies and environmental hazards.

**Course Learning Outcomes:**

By the end of the course, participants should be able to:

- CO1.** Demonstrate an understanding of the principles of first aid and its role in emergency management.
- CO2.** Perform basic assessments and administer appropriate first-aid interventions for various medical emergencies.

**Unit 1: Introduction to First Aid and Basic Techniques**

1. Introduction to First Aid
2. Dealing with an emergency, Introduction of Triage system.
3. Assessment and Recovery position.
4. Transport Techniques – ( Fractures, Dislocations, and Immobilization Techniques, Head and Spinal Injuries)

**Unit 2: Life-Saving Interventions and Medical Emergencies**

1. Cardiopulmonary Resuscitation (CPR)
2. Airway Management and Choking Emergencies
3. Bleeding Control and Wound Care: Dressings, Bandages, and Splints.
4. Shock Management and Syncope, Convulsions management.

**Unit 3: First Aid in Common Emergencies and Environmental Emergencies**

1. Common Burns: Assessment, Treatment, and First Aid Measures.
2. Asthmatic attack/Diarrhea /food poisoning.
3. Environmental Emergencies: Drowning, Heatstroke, Hypothermia.
4. Animal: Animal bites, Snake/Insect Bites.

**Suggested Reading Material:**

1. "Indian First Aid Manual"(2016)7th Edition. Indian Red Cross Society.
2. "Emergency Care and Transportation of the Sick and Injured" by American Academy of Orthopedic Surgeons (AAOS)
3. "Wilderness Medicine: Beyond First Aid" by William W. Forgey
4. "The American Heart Association's CPR & ECC Guidelines" by American Heart Association
5. "First Aid Manual" by The British Red Cross

**Mode of Evaluation**

Continuous internal evaluation (No end semester examination) / Poster presentation / Project / Presentation / Assignment / Quiz.

**Total Marks - 100**

**General Elective (GE) courses**  
**offered by Department of Zoology**  
**B.Sc. Semester IV**  
**Name of the course: Food and Nutrition**

[ 2 lectures per week \* 15 weeks = 30 Lectures ]

**Course description:**

The purpose of this course is to give the fundamental knowledge of food, nutrition and concept of balanced diet.

**Course Objectives:**

1. To familiarize students with fundamentals of food, nutrients and their relationship to Health.
2. To create awareness with respect to nutrition and disorders associated with it.

**Course learning outcomes:**

- CO1. Students will be able to know about nutrition and categories of nutrients.  
CO2. Students will be able to know dietary sources of nutrients.  
CO3. Students will be able to know about balanced diet and BMI calculation and disorders associated with it.

**Unit – I**

**[10 L]**

- 1) Basic concept of nutrition
- 2) Macronutrient – Categories, common examples of macronutrients included in Indian food.
- 3) Micronutrients – Categories, examples of micronutrients included in Indian food.

**Unit – II – Dietary sources of nutrients**

**[10 L]**

- 1) Proteins
- 2) Carbohydrates
- 3) Lipids
- 4) Folic acids
- 5) Iron
- 6) Calcium
- 7) Fibre
- 8) Vitamin – C
- 9) Vitamin – A
- 10) Riboflavin

**Unit – III**

**[10 L]**

- 1) Concept of balanced diet, balanced diet for adults male and female.
- 2) Sample meal plan for adult
- 3) Nutrient requirements & RDA in adult male & female
- 4) Concepts of BMI, its calculation what is mal nutrition, overweight obesity on the basis of BMI

**Reference books:**

- Dietary guidelines for Indians – A Manual – NIN, Hyderabad.
- Nutritive value of Indian foods – NIN, Hyderabad.
- Nutrient requirements and recommended dietary allowances for Indians – NIN, Hyderabad.
- Mudambi, SR and Rajagopal, MV. Fundamentals of Foods, Nutrition and Diet Therapy; Fifth Ed; 2007; New Age International Publishers
- Srilakshmi B. Nutrition Science; 2002; New Age International (P) Ltd
- Srilakshmi B. Food Science; 4<sup>th</sup> Ed; 2007; New Age International (P) Ltd.
- Swaminathan M. Handbook of Foods and Nutrition; 5<sup>th</sup> Ed; 1986; BAPPCO.
- Bamji MS, Rao NP, and Reddy V. Text Book of Human Nutrition; 2009; Oxford & IBH Publishing Co. Pvt Ltd.
- Wardlaw GM, Hampl JS. Perspectives in Nutrition; Seventh Ed; 2007; McGraw Hill.
- Lakra P, Singh MD. Textbook of Nutrition and Health; First Ed; 2008; Academic Excellence.

**Mode of Evaluation**

Continuous internal evaluation (No end semester examination) / Poster presentation / Project / Presentation / Assignment / Quiz.

**Total Marks - 100**