

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF PHARMACY

EPHAVAC01 - KNOW YOUR MEDICINE

Learning Objectives:

The course is intended

1. To familiarise the student about various dosage forms, components, categories and label of Medicines.
2. To sensitise the student about the buying, using, storing and side effects of Medicines.
3. To gain insights about various stages of drug development and about current therapies.
4. To understand the concepts of traditional medicines, standards for medicines and regulation of medicines.
5. To gain the skill in extraction, evaluation and labelling of medicines.

Course Outcomes:

Upon completion of the course, the student will be able to

1. Explain the various dosage forms, components, categories and labelling of Medicines.
2. Gain awareness about buying, using, storing and side effects of Medicines.
3. Understand about various stages of drug development and about current therapies.
4. Appreciate the concepts of traditional medicines, standards for medicines and regulation of medicines.
5. Extract, evaluate and label the medicines.

Theory (18 Hours)

UNIT-I

Know your Medicine: What are Medicines? Food/ Nutrition vs Medicine. Brief description of some common Dosage forms of Medicines: Tablets, Capsules, Liquids, Suspensions, Injectables, Non-oral dosage forms etc. Components of a Medicine (Dosage form). Generic and Branded medicines. Therapeutic, Prophylactic and Nutritional supplement dosage forms. Dosage strength and How to read the label of Medicines. Idea of Batch, Manufacturing and Expiry Dates.

Unit-II

Using Medicines (Dosage Forms): Buying and storing medicines at home. Concept of Dosage frequencies and its variation. Reasons for before or after food dose. Do's and Don'ts with special dosage forms (enteric or extended release etc). Handling sterile dosage forms and the relevant precautions. Antibiotics, and their responsible use. Concepts of adverse effects and its reporting. Do's and Don'ts on Medicines for chronic conditions such as Diabetes, Hypertension etc

Unit-III

Drugs or Medicine Discovery: Some historical perspectives of drug discovery examples such as Aspirin, Penicillin, Quinine, etc. Natural drugs to Modern drugs. Outline of modern drug discovery process. Safety evaluation and Efficacy Evaluation etc. Some modern advances such as Gene Therapy, Stem cell therapy etc.

UNIT-IV

Herbal, Ayurvedic and Siddha Medicines: Basic concepts. Common Traditional Remedies and Illustrative examples of popular plant drugs used in the above systems of medicines, their therapeutic constituents and uses. Awareness about problems or quality issues associated with marketed herbal products and their reliability.

UNIT-V

Standards, Quality and Regulation of Medicines: Basic concepts of quality with respect to medicinal products and how it is ensured. Pharmacopoeias and Standards associated with medicine manufacture. Outline of structure and functions of Drug Control and other relevant Bodies such as NPPA, Scope and purpose of Drugs and Cosmetic Act etc.

Practicals: (12 Hours)

1. Preparation of labels for Pharmaceutical dosage forms
2. Extraction of crude drugs
3. Evaluation of dosage forms
4. Evaluation of crude drugs.

References:

1. Allen, (2018), Ansel's Pharmaceutical Dosage Forms And Drug Delivery System, Wolters Kluwer India Pvt. Ltd.
2. Mohantha G P, (2017), Textbook of Clinical Research, PharmaMed Press/BSP Books
3. Wallis T E, (2005), Textbook Of Pharmacognosy, CBS
4. Indian Pharmacopoeia 5. Central Drugs Standard Control Organization (CDSCO): <https://cdsco.gov.in/opencms/opencms/en/Home/>