

**VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.****S.Y. M.B.B.S.****Pharmacology and Pharmacotherapeutics****1. Goal**

The broad goal of teaching pharmacology to undergraduate students is to inculcate in them a rational and scientific basis of therapeutics.

**2. Educational objectives*****(a) Knowledge***

At the end of the course, the student shall be able to -

- i. describe the pharmacokinetics and pharmacodynamics of essential and commonly used drugs
- ii. list the indications, contraindications, interactions and adverse reactions of commonly used drugs
- iii. indicate the use of appropriate drug in a particular disease with consideration of its cost, efficacy and safety for -
  - individual needs, and
  - mass therapy under national health programmes
- iv. describe the pharmacokinetic basis, clinical presentation, diagnosis and management of common poisonings
- v. Integrate the list the drugs of addiction and recommend the management
- vi. Classify environmental and occupational pollutants and state the management issues
- vii. Explain pharmacological basis of prescribing drugs in special medical situations such as pregnancy, lactation, infancy and old age
- viii. explain the concept of rational drug therapy in clinical pharmacology
- viii state the principles underlying the concept of 'Essential Drugs'
- ix. evaluate the ethics and modalities involved in the development and introduction of new drugs

***(b) Skills***

At the end of the course, the student shall be able to -

- i. prescribe drugs for common ailments
- ii. identify adverse reactions and interactions of commonly used drugs
- iii. interpret the data of experiments designed for the study of effects of drugs and bioassays which are observed during the study
- iv. scan information on common pharmaceutical preparations and critically evaluate drug formulations
- v. be well-conversant with the principles of pharmacy and dispense the medications giving proper instructions

**(c) Integration**

Practical knowledge of rational use of drugs in clinical practice will be acquired through integrated teaching vertically with pre-clinical & clinical subjects and horizontally with other para-clinical subjects.

**3. Total duration of para-clinical teaching** 3 Semesters (III,IV,V)  
Total 360 teaching days

**Total number of teaching hours allotted to Pharmacology** 300 hours

**4. Syllabus**

**a. Learning methods**

Lectures, tutorials, Practicals

Distribution of teaching hours

**Theory**

- *lectures* .....109 ± 5
- *tutorials* .....17 ± 5
- Total 126 ± 10

B) Practicals .....120 ± 5

C) Revision & Evaluation (Internal Assessment) .....60

b. & c. Sequential organisation of contents & their division

A) INTRODUCTION: ***Pharmacology - a foundation to clinical practice*** (N=1)

Development of the branch of pharmacology; Scope of the subject; role of drugs as one of the modalities to treat diseases,  
definition of drug;  
nature and sources of drugs;  
subdivisions of pharmacology  
rational pharmacotherapy