M. PH. 1.5D P H A R M A C O L O G I C A L SCREENING METHODS 3 Hrs/ Week
THEORY

UNIT-I

Drug discovery process: Principles, techniques and strategies used in new drug discovery. High throughput screening, human genomics. Regulations for laboratory animal care and ethical requirements.

UNIT-II

Preclinical and clinical models employed in the screening of new drugs belonging to following categories:
Antipsychotic agents, antianxiety agents; nootropic drugs; antidepressant drugs; antiparkinsonian agents; opioid analgesics; anti-inflammatory drugs.

UNIT-III

Preclinical and clinical models employed in the screening of new drugs belonging to following categories.
Infarction; antiatherosclerotic drugs; antimalarials; anthelmintics; antidiabetics; models for antiepileptics; local anesthetics; activity on the GI tract, transgenic animals and other genetically prone animal models.

UNIT-IV

Alternatives to animal screening procedures, cell-line, patch-clamp techniques, in-vitro models, molecular biology techniques.
Principles of toxicity evaluations, ED_{50}, LD_{50} and TD values. International guidelines (ICH recommendations) .