**Course Syllabus**

**3rd year : 2nd Semester**

**Theory : 2 hours**

**References**:

* Pharmacognosy by Tyler, 9th edition..
* Trease &Evans Pharmacognosy 16th edition 2009
* Fundamentals of pharmacognosy and phytotherapy by Michael Heinrich….second edition

**Alkaloids:** Introduction; Physical and chemical properties

Pyridine, piperidine alkaloids

Tropane alkaloids

Quinoline alkaloids

Iso-quinoline alkaloids

Imidazole alkaloids

Indole alkaloids

Steroidal alkaloids

lupinane alkaloids

Alkaloidal amines

Purine alkaloids

**Antibiotics**: Natural sources; biosynthetic pathways, isolation and purification

Antibiotic derived from amino acid (penicillin)

Antibiotic derived from acetate (tetracycline)

Antibiotic derived from CHO (gentamicin)

.**phytotherapy** :Introduction , principles, medicinal plants in selected health care systems. Important natural products used in pharmacy & medicine in (GIT disease)