



SECOND SEMESTER 2015-16

Course Handout (Part II)

Date: 5/01/2016

In addition to part I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : PHA F344

Course Title : Natural Drugs

Instructor-in-charge: Dr. Atish T. Paul

Instructors : Atish T. Paul, Anuradha

1. Scope and Objective of the Course:

This course deals with study of crude drugs of natural origin, currently used in pharmacy and medicine. The study comprises of classification of crude drugs, principles of cultivation, collection, preparation for market and commerce of natural drugs, their morphological, microscopical and chemical characteristics, identification, uses and common adulterants.

2. Text Book: Trease and Evans Pharmacognosy, W. B. Saunders (Harcourt Publishers Ltd), 15th ed., 2002.

Reference Books:

1. Tyler V.E, Brady, L.R, Rodders, J.E, Pharmacognosy, K.M.Varghese, 8th ed., 1981.
2. Wallis T.E, Text book of Pharmacognosy, CBS Publishers, 5th ed., 1997.





3. Course Plan:

Lec. no	Learning Objectives	Topic to be covered	Text Book Chapte
1-2	Introduction	Origin, scope and practice of pharmacognosy, Plant nomenclature and taxonomy	1
3-5	Microcopy, Macroscopical Study of Plant Tissues	Plant description, morphology and micromorphology, Techniques in microscopy, ergastic cell contents,	9
6-10	Phytochemistry	Biological and geographical sources of drugs, General methods associated with the phytochemical investigation, basic metabolic pathways and the origin of secondary metabolites.	5
11-20	Pharmacopoeial and related drugs of biological origin	Study on Hydrocarbons, Phenols and phenolic glycosides and volatile, resins, Saponins, cardioactive, alkaloids, cyanogenetic glycosides, miscellaneous isoprenoids,	6
21-29	Plant and animal kingdoms as sources of drugs	Pharmacological activities of natural products, anticancer, antiprotozoal, antibacterial, antiviral agents agents, An overview of drugs with antihepatotoxic and oral hypoglycaemic activities, plant nutraceuticals	2
30-32	Plants in complementary and traditional systems of medicine	Synergy, Traditional plant medicines as a source of new drugs, Herbal medicine in Britain and Europe: regulation and practice, Asian medicine, Chinese herbs in the West	2,7
33-36	Commercial production, quality and standardization of natural products,	Commerce in crude drugs, Production of crude drugs, Plant growth regulators, Plant cell and tissue culture; phytochemical variation within a species, Quality control	3





37-39	Non-medicinal toxic plants and pesticides	Hallucinogenic, allergenic, teratogenic and other toxic plants, Pesticides of natural origin	8
-------	---	--	---

4. Evaluation Scheme:

S.no	Evaluation Component	Duration	Weightage (%)	Date & Time	Remarks
1.	Mid term	90 min	30	19/3 2:00 -3:30 PM	CB
2.	Continuous assessment		30		CB
3.	Compre. Exam.	180 min	40	16/5 FN	OB/CB

** Continuous assessment will be based on theory covered in class. Topics and number will be announced in the class. It will be in terms of home assignments, tutorials, projects, laboratory, viva- voce and class participation*

5. Attendance: Although attendance is not compulsory, regularity in theory and practical classes will be decisive factor during grading, especially in borderline cases.

6. Chamber Consultation Hour: To be announced in the class.

7. Make-up policy: Generally make-up will be considered for regular students only.

8. Notices: Concerning this course will be displayed on Pharmacy N. B.

**Instructor-in-charge
PHA F344**

