

Course description, Phyto I

Phytochemistry means the study of the plant (natural chemistry).

In pharmacy we emphasize on the natural/plant chemistry.

During our course we will study different groups of plant natural products with medicinal or industrial value.

In the first part (phyto I) the course deals with two major classes:

1. Volatile oils: preparation methods, general chemical properties, hydrocarbons, alcohols, phenols, ketones, aldehydes, esters, miscellaneous
2. Carbohydrates: preparation methods, general chemical properties, pentoses, hexoses, disaccharides, trisaccharides, polymers
3. Bitter principles and resins

Qualifications and Goals

1- Intended Learning Outcomes (ILOs):

a- Knowledge and Understanding:

By the end of the course, students will have the required knowledge about the most important medicinal natural products: volatile oils and carbohydrates.

b- Intellectual Skills:

- Upon successful completion of this course, students will be able to:
- Identify volatile oil structure and chemistry and carbohydrates importance and chemical identification

c- Practical skills:

- Independent study and SAR of different groups
- Chemical Test for important drugs;

d- General and transferable skills:

- Working in a group, and be able to put a plan for small projects
- Launch the internet for medicinally used plant volatiles and carbohydrates



Course content

1. Volatile oils: preparation methods, general chemical properties, hydrocarbons, alcohols, phenols, ketones, aldehydes, esters, miscellaneous
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Teaching-training activities

Class activity: Wednesdays 11-1 pm,

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Phyto I, 2010

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- **Each 2 or 3 students will be assigned one natural product from the course subject**
- **Each group discusses the natural product (VO or Carbohydrate) on the white board with emphasis on the following points:**

A. chemistry of the drug

B. origin of the drug

C. preparation/extraction of the drug

D. Synthesis and chemical test

E. medicinal or industrial uses

F. other notes about the mentioned drug/natural chemical

- **No ppt presentation is required**
- **Questions and answers are highly encouraged (bonus mark)**
- **A written document with the group name in closed file should be handed to dr. rabab before the presentation time**



Support

my dearest students i am available all saturday untill 3pm and all wednesday untill 7pm for any questions or expalnation about our course.



Methods of evaluation

Assessed by final written examination: week 16 or 18

Practical examination: week 14-15

Semester work: week 1-14

Weighting of assessments:

Semester work: 20 marks, weight 20%

Practical examination: 20 marks, weight 20%

Midterm examination: 20 marks, weight 20%

Final written examination: 30 marks, weight 30%

Oral examination: 10 marks, weight 10%

Total marks 100

Total weigh: 100%

