

## Faculty of Medicine



### FARM2161 Pharmacognosy : a) phytochemistry - b) medicinal plants

[52.5h+30h exercises] 6.5 credits

This course is taught in the 1st and 2nd semester

**Teacher(s):** Joëlle Leclercq  
**Language:** French  
**Level:** Second cycle

#### Aims

At the end of this course, the students should:

- Know the main raw materials from natural origin to give the best advice and the right information to patients
- Know the main types of natural active molecules, their chemical, physical and pharmacological properties
- Know the principles and the handling of analytical techniques used to determine the quality of plant drugs

The course also explains:

- The uses of medicines from plants, interactions and side effects
- The notions of biosynthesis, chemotaxonomy and ethnopharmacology

The students should also be able to actualize their knowledge and critically use literature data.

#### Main themes

- Plant drugs in modern therapy
- Main usage forms of plants and plant extracts
- Quality criteria for medicinal plants and plant extracts
- Classes of active compounds from plants and their properties
- Toxic plants and plants used in pharmacy as crude drugs, extracts or for extraction of active compounds

#### Content and teaching methods

A/ Phytochemistry:

- Quality control of plant and plant extracts, particular analytical methods and resolution of problems (case studies)
- Biosynthesis, physico-chemical and pharmacological properties of the main natural active compounds

B/ Medicinal plants:

- Generalities on uses, advantages and drawbacks of phytotherapy, differences with homeopathy, risks of plant uses
- Main forms of plants or extracts used in pharmacy
- Examples of the most frequently used plants in phytotherapy (part used, chemical composition, quality criteria, side effects, contra-indications and doses)
- Bibliographical research in small groups on one plant and critical analysis of a paper on this plant (case study)

C/ Practical part:

- Macroscopic identifications of medicinal plants in thees
- Microscopic identification of examples of medicinal plants
- Chemical analysis of a drug according to the European Pharmacopea

#### Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Evaluation:

Students will be evaluated for the theoretic part by a written exam comprising a practical problem and on their personal/group work.

An exam will also be organised for the microscopic and macroscopic parts, while a continuous evaluation is organised for the phytochemical part.

**Other credits in programs**

<b>FARM21</b>	Première année du grade de pharmacien	(6.5 credits)	Mandatory
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