

Faculty of Medicine

FARM1231 **Organical chemistry Part 2**

[45h+120h exercises] 10 credits

Teacher(s): Paul Depovere, Jacques Poupaert, Etienne Sonveaux (coord.)
Language: French
Level: First cycle

Aims

This course is mainly devoted to the industrial synthesis of drugs, taking the retrosynthetic point of view : given a drug structure, how could it be synthesized from simple industrial precursors ?

Practicals give the opportunity to master the methods of organic chemistry in the laboratory.

Main themes

(i) The course shows how organic synthesis gives access to members of therapeutic families related by a similarity of structure (e.g. benzodiazepins, tricyclic aromatics, dihydropyridines, fluoroquinolones, b-lactam antibiotics, b-blocking agents, steroids...).

(ii) Two topics not covered in MD1004 and FARM1004 are also briefly presented : heterocyclic chemistry and polymers.

Content and teaching methods

The lessons and tutoring activities are aimed to render the students familiar with the main reactions described in the patent literature on active principles (Axel Kleemann and Jürgen Engel, Pharmaceutical Substances, Syntheses, Patents, Applications, Thieme, Stuttgart, New York). The emphasis is on the retrosynthetic approach applied to the medicinal specialities of the belgian market.

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

Prerequisites :

(i) Sufficient knowledge of French.

(ii) Having a good knowledge of general and organic chemistry applied to drugs (MD1003, FARM1003, MD1004, FARM1004).

Evaluation : written examination measuring problem solving capabilities.

Other credits in programs

FARM12BA	Deuxième année de bachelier en sciences pharmaceutiques	(10 credits)	Mandatory
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