

Faculty of Medicine



FARM2231 Analytical chemistry

[30h] 3 credits

This course is taught in the 2nd semester

Teacher(s): Didier Lambert, Joëlle Leclercq
Language: French
Level: Second cycle

Aims

To provide to the student a suitable knowledge for: .1) to understand and use effectively the pharmacopeias 2) to adequately choose the analytical method for a problem given within the framework of the analysis of a drug (raw material, apparented substances, complex mixtures, medicinal products, biological media).

Main themes

In the theoretical course, the teacher will approach the principal methods used for control of purity and quality of the drugs (qualitative and quantitative research of the impurities). An importance is given to the methods of spectroscopy of point (NMR, IR, spectrometry mass)

Content and teaching methods

I.1.Introduction

2. Quality control of the drug-Pharmacopeia.
3. Purity of the drug and principal ways of degradation.
- 4.Methods of separation (liquid-liquid extraction and solid liquid, extraction liquid and gas chromatography, capillary electrophoresis).
5. Limit tests for inorganic impurities.
6. Physical and physicochemical semi-quantitative methods.
- 7.Other methods of proportioning.

II.TP 1: Test of the KBr-Proportioning of KBr/KCl.

TP2: Test of the BaSO₄-Aspirin dosage

TP3: Dosage/benzoate assay. Citrate/benzoate assay.Borax European Pharmacopeia. Lidocaïne dosage.

TP4: Quinine sulfate assay -Methyl salicylate of dosage. Dosage of iodine in the aristol-proportioning of the chlorpromazine.

TP5: Identification to the officine. Analgesics. Dosage of the aromatic primary amines

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

Prerequisite :

Introduction to analytical chemistry. Qualitative and quantitative analytical chemistry.

Evaluation

Written examination. Oral correction, if insufficient dimension with the written examination. Ventilation of the points:

Theoretical course: 60% - TP+interrogation: 20% - Directed TP (file): 20% Condensed notes of cours:notes and photocopies of slides distributed to the students.

Reference book: European pharmacopeia 3e edition and supplements (paper and CD rom) available to the library or via the computer room.

Provision of the laboratory and the ad hoc apparatuses.

Other credits in programs

FARM22	Deuxième année du grade de pharmacien	(3 credits)	Mandatory
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