

## Faculty of Medicine



### FARM2250 Pharmacotechnique

[15h] 1.5 credits

This course is taught in the 2nd semester

**Teacher(s):** Jean Gillard  
**Language:** French  
**Level:** Second cycle

#### Aims

The course of Pharmacotechnique consists of the prolongation of the galenic formulation course (the best presentation of a drug adapted for the targeted therapy).

The objectives are :

- the operations of pharmaceutical engineering for the industrial production of pharmaceuticals forms,
- illustrations and applications of physico-chemicals principles learned during the first three years of baccalauréat.
- the concepts of "good manufacturing practices" and quality assurance.
- an introduction for the masters (DES) in pharmaceutical engineering and industrial pharmacy, industrial pharmacy and hospital pharmacy.

#### Main themes

The most concerned themes are focussed on the concepts of " good manufacturing practices and quality assurance :

- conception of pharmaceutical rooms
- air treatment (temperature, humidity, filtration)
- fabrication and filling of containers (thermoformage) for injectable drugs
- packaging of tablets
- powder technology (flow properties, nebulisation, cryodessiccation)
- granulation, tablet making, pelletization for direct and sustained release
- coating of tablets, pellets
- industrial sterilizers (batch and continuous)

#### Content and teaching methods

The pharmacotechnique is a science applicated to the production of the different pharmaceutical forms in respect of "good manufacturing practices" to guarantee the quality assurance of the final drugs.

By the way of actual examples from industrial technology this course has the specific purpose to illustrate the physico-chemical concepts learned during the bacchalaureat :

- the phase diagram of water and application in the conception of cryodessiccation (ice), drying and air treatment (relative humidity), sterilization (vapor)
- the natural and synthetic polymers and their applications for granulation; tableting; coating of powders, tablets, capsules for direct or sustained release; containers blowing and packaging.

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

This course must to be to teach in connection with the course of galenic formulation and preferably after this.

Written examination

Diapositives, video, syllabus

A teacher

Samples of pharmaceutical forms, packaging, illustration by replacements parts of industrial machines.

**Programmes in which this activity is taught**

**FARM3DS/IN** Diplôme d'études spécialisées en sciences pharmaceutiques  
(ingénierie pharmaceutique et technologie industrielle)

**Other credits in programs**

<b>FARM21</b>	Première année du grade de pharmacien	(1.5 credits)	Mandatory
<b>FARM22</b>	Deuxième année du grade de pharmacien	(1.5 credits)	Mandatory