Pharmaceutical formulation

ECTS
3 crédits

Composante
UFR Pharmacie

Période de l'année
Automne (sept. à dec./janv.)

Diplômes intégrant cet élément

- Master Ingénierie de la santé

Langue(s) d'enseignement: Anglais

Ouvert aux étudiants en échange: Non

Présentation

Description

Through this unit, the student will be introduced to pharmaceutical development, that describes the different steps needed to go from an active molecule to an effective dosage form. The specificities of the main dosage forms will be presented and different operations needed to reach these specificities will be studied.

The aim is to make student aware of the necessity of pharmaceutical development to turn an active molecule into an efficient dosage form. This unit aims to give the student the knowledge and tools to understand the critical steps encountered during the pharmaceutical development.

This unit will be organized around 4 lecture sessions aiming at presenting pharmaceutical development, pharmaceutical dosage forms, strategies that can be involved in improving drug properties to meet the specificities of the different dosage forms and the pharmaceutical unit operation needed to prepare the different dosage forms. The students will attend 2 tutorial classes where we will study practical cases based on actual pharmaceutical formulations. These tutorial classes will illustrate the lecture sessions and help student understand practical aspects involved in pharmaceutical developments. A small practical project will conclude the unit. It will be divided into 4 sessions: 1 tutorial class to introduce the practical sessions, 2 practical sessions meant to discover a few unit operations and 1 final tutorial class to conclude the small project.

Exemples of topics:

Informations non contractuelles.
Dernière mise à jour le 30 juin 2026

- Introduction to Pharmaceutical Development
- Pharmaceutical dosage forms : detailed in sub-chapters (oral, injectable, …) with emphasis on specificity
- Improving drug properties to meet specificities of dosing forms
- Pharmaceutical unit operations related to the specificities of dosing forms
- Case study : oral forms
- Case study : injectable forms
- Discussion about practical sessions, briefing and debriefing
- Solid pharmaceutical forms :
- Liquid pharmaceutical forms : improving the stability of suspensions

Infos pratiques

Campus

Grenoble - La Tronche domaine de la Merci

Informations non contractuelles.
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