



2.00 credits

15.0 h

Q2

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| Teacher(s) | Vanbever Rita ; |
| Language : | French |
| Place of the course | Bruxelles Woluwe |
| Prerequisites | <i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i> |
| Main themes | 1. Pharmaceutical solutions : Dissolution Solubility Partition coefficient Osmotic pressure 2. The solid state : Solid state properties : The crystalline structure Polymorphism The amorphous state Solid dispersions Properties of powders : Particle size Particle shape Specific surface area Powder density Powder flowability and particles cohesion Wettability 3. Rheology : Fluid viscosity Determination of the flow properties of Newtonian fluids Types of non-Newtonian behavior Determination of the flow properties of non-Newtonian fluids 4. Disperse systems : Interfacial phenomena Liquid interfaces Solid interfaces Colloidal systems 5. Polymers : General properties of polymers Water-soluble polymers Water-insoluble polymers and polymeric membranes |
| Learning outcomes | At the end of this learning unit, the student is able to : 1 To assimilate the physicochemical principles necessary to the formulation of dosage forms |
| Bibliography | Littérature de référence : <ul style="list-style-type: none"> • Physicochemical Principles of Pharmacy. A.T. Florence and D. Attwood, 4ème édition, Pharmaceutical Press, 2005 • Pharmaceutics - The Science of Dosage Form Design. M.E. Aulton, 5ème édition, Churchill Livingstone, 2018 • Martin's Physical Pharmacy and Pharmaceutical Sciences. P.J. Sinko, 5ème édition, Lippincott Williams & Wilkins, 2006 |
| Faculty or entity in charge | FARM |

| Programmes containing this learning unit (UE) | | | | |
|--|-------------------------|---------|---------------------------------------|---|
| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Master [120] in Biomedical Engineering | GBIO2M | 2 | |  |
| Bachelor in Pharmacy | FARM1BA | 2 | WFARM1243 AND WMD1102 |  |