


6.00 credits

45.0 h + 10.0 h

Q1

Teacher(s)	Hautier Geoffroy ;Leyskens Tom ;Leyskens Tom (compensates Hautier Geoffroy) ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	A detailed study of the properties of matter and molecules is presented and completed by a discussion of chemical reactivity models. Teachers will place emphasis on microscopic versus macroscopic properties connecting both approaches through a statistical point of view.
Learning outcomes	At the end of this learning unit, the student is able to : The course aims to guide students in completing their knowledge in physical chemistry and to apply it to concrete cases. 1 A systematic presentation completes the education of chemical thermodynamics and kinetics acquired during the bachelor's degree.
Evaluation methods	A written exam takes place in January. During the exam, the student is able to reproduce the theory that is considered during the course, as well as to apply the course material to solve practical problems. The exam will cover all the chapters that are treated in the course. A similar type of evaluation is organized in september Depending on the sanitary conditions, this exam can possibly take place online.
Teaching methods	This course is a 5 Credit course and is podcast based. Students are required to visualize and work through a series of podcasts following a given timeline. Question-Discussion sessions are organized on a regular basis to discuss these podcasts. These sessions will be held in a classroom, with the students asking questions on the podcasts. Typically on a weekly basis, the students are left to work the podcast for 2h (at home) and the question-answer session is covered by the other 2h (total of 4h planned each week).
Content	The class focuses on crystal engineering, crystal growth and crystallization, more specifically looking at the concepts of polymorphism, chiral resolution and salt/co-crystallization using physico-chemical principles applied to crystallization.
Inline resources	slides available on moodle
Faculty or entity in charge	CHIM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Chemistry	CHIM2M	6		
Master [60] in Chemistry	CHIM2M1	6		