

3.00 credits

0 h + 105.0 h

Q2


**This learning unit is not open to incoming exchange students!**

Teacher(s)	Herent Marie-France ;Muccioli Giulio (coordinator) ;
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	The teacher(s), helped by graduate students and technicians, will discuss the different types of particle exchange in a solution. The aim is first to give the practical basis that will help to understand the theoretical notions studied during WFARM1243 ; second to form the students to the analytical reasoning.
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>At the end of the activity the student will be able to</p> <p>1</p> <ul style="list-style-type: none"> <li>• Behave in an analytical lab environment</li> <li>• To understand notions such as 'trueness, accuracy, experimental error'</li> <li>• To understand and use an experimental protocol</li> <li>• To discuss the results he has obtained during the experiment</li> </ul>
Evaluation methods	Continuous evaluation based on the post-experiment reports, on the evaluation of the student preparation to the experiment, and a final exam.
Teaching methods	the activity takes place in didactic labs the actual experiments are preceded by theoretical exercises (that need to be prepared by the student)
Content	The activities focus on the preparation and resolution of exercises, as well as practical manipulations to illustrate the concepts addressed in the EU WFARM2143. The themes summarized below are discussed. <ul style="list-style-type: none"> <li>• General aspects of an analytical lab ("good laboratory practices")</li> <li>• Gravimetry and precipitometry                             <ul style="list-style-type: none"> <li>• Quantification of sulfates and chlorides by several techniques, and quantification of iodide based on the European pharmacopoeia</li> </ul> </li> <li>• Acidimetry                             <ul style="list-style-type: none"> <li>• Titrations in aqueous media</li> <li>• Titrations in non aqueous media</li> </ul> </li> <li>• Complexometry                             <ul style="list-style-type: none"> <li>• Measure of the drinking water hardness</li> <li>• Screening for toxics (Bi ' Pb)</li> </ul> </li> <li>• Oxydimetry                             <ul style="list-style-type: none"> <li>• Quantification of several ions (iron, iodides, calcium) and of pharmaceutical substances (chloramine T, sulfanilamide)</li> </ul> </li> </ul>
Inline resources	The book relative to the pratcial exerices is available online on the moodle platform.

<p>Other infos</p>	<p>Participation in practical work, tutorials and exercise sessions is mandatory and indispensable to validate the teaching unit.</p> <p>Any unjustified absence leads to a penalty for the course exam which can go as far as the cancellation of the exam mark for the year of study in question (0/20).</p> <p>In case of repeated absences, even if justified, the teachers may propose to the jury to oppose the registration to the course exam in accordance with article 72 of the RGEE.</p> <p>Following the particular situation (COVID19) teachers will adapt the activities and practical instruction to the current situation. The communication of the modalities will be ensured by the EU moodle (to be consulted regularly) and orally at the beginning of the session.</p> <p>Translated with <a href="http://www.DeepL.com/Translator">www.DeepL.com/Translator</a> (free version)</p>
<p>Faculty or entity in charge</p>	<p>FARM</p>

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Pharmacy	FARM1BA	3	WMD1104 AND WMD1105 AND WMD1106 AND WFARM1003	