

4.0 credits

37.5 h + 10.0 h

Teacher(s) :	Plumat Jim ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	<p>Didactics in physics can be developed around three basic epistemological axes. The first one refers to the importance of experiments and, more precisely, observed facts. In the field of science, facts actually organize reflexion. However, the analysis of an observed phenomenon is only meaningful in reference to a theoretical frame. Consequently, to induce the students to ask themselves about the construction and validity of a concept, a law or a scientific theory and about its field of application is a second vital step.</p> <p>Finally, a third axis, essential to any methodological didactic reflexion is that a future teacher has to realize that the pupils possess spontaneous conceptions that can, in some circumstances, constitute real barrier to their learning. After some classes where this common reflexion will be introduced with the students, they will be asked to take part to practical exercises within the didactic laboratory.</p> <p>The goal of achieving experiments in physics is twofold: make the future teachers students familiar with didactic equipment and make them learn how to think about the best way to tackle an experimental sequence. The students will finally be asked to handle a personal file which will attest their reflexion on the way they applied in practical sessions the concepts which were developed during the classes. The students will be rated on basis of this file and a personal interview.</p>
Aims :	<p>The goal of this teaching, alongside with general didactics, is to develop the skills of the future teachers in order to design and manage teaching sequences in physics which are relevant for the pupils.</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Other infos :	<p>This teaching is complementary to general didactics, it must be followed at the same time or after the latter. This course is mandatory for students whose major aggregation in physical sciences. In the frame of the Academy of Louvain, the co-lecturer in charge of this course is a member of high-level examination for recruitment of teacher in physics at the Facultés Universitaires Notre Dame de la Paix of Namur.</p>
Cycle and year of study :	<p>> Master [120] in Mathematics > Teacher Training Certificate (upper secondary education) - Mathematics > Master [120] in Geography : General > Teacher Training Certificate (upper secondary education) - Geography > Master [120] in Biology of Organisms and Ecology > Master [120] in Biochemistry and Molecular and Cell Biology > Teacher Training Certificate (upper secondary education) - Biology > Teacher Training Certificate (upper secondary education) - Chemistry > Master [120] in Chemistry</p>
Faculty or entity in charge:	CAFC