

4.0 credits

30.0 h

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| Teacher(s) :                 | Van Nieuwenhoven Catherine ;   |
| Language :                   | Français   |
| Place of the course          | Louvain-la-Neuve   |
| Main themes :                | The course is designed to identify different methodological principles necessary to structure and organize learning involving mathematics by linking them firmly to an analysis of different theoretical trends. There is an epistemology-based examination of problem resolution as a feature of mathematical activity and as a teaching method from a cross-disciplinary perspective. Case studies and the analysis of teaching and learning methods are dealt with from a methodological point of view.   |
| Aims :                       | By the end of this course, students will be capable, as educational psychologists, of playing an active role in the training of future teachers in the primary and secondary sectors in the field of mathematics and problem resolution methods.<br>More particularly, they will be able to analyse the teaching methods of a teaching project in these areas and make recommendations for improvement with reference to didactic principles and academic and expert knowledge on learning techniques.<br><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> |
| Content :                    | * Theory :<br>- Analysis of recent trends in the field of basic learning in mathematics (didactic, Piagetian and cognitivist etc.)<br>- Study of different methodological principles necessary to structure and organize learning in mathematics.<br>- Epistemology-based examination of problem resolution as a feature of mathematical activity and as a teaching method.<br>- Making use of basic skills and the Integrated Programme.<br>* Methodology :<br>- Recreation and analysis of learning methods.<br>- Representation of mathematics in schools.<br>- Analysis of student methods to identify underlying learning processes (errors etc.).<br>- Case studies and design of teaching materials.  |
| Other infos :                | Development of a teaching strategy adapted to adults including the link between theory and practice, work in groups, training assessment and work on using material in practice. The training and assessment methods used must reflect the principles students have been taught.   |
| Cycle and year of study :    | <a href="#">&gt; Master [120] in Education (shift schedule)</a>  |
| Faculty or entity in charge: | EDEF   |