

Faculty of Psychology and Education Sciences



FOPA2262 Questions of psychopaedagogics and didactics : basic learnings in maths

[30h] 6 credits

Teacher(s): Catherine Van Nieuwenhoven
Language: French
Level: Second cycle

Aims

At the end of the course the students should be able, as psychoeducational teacher, to take part actively to the didactic formation of future teachers in elementary schools and high-schools in the field of maths and of the approaches of problems solving.

More particularly, they will be able to analyse the educational device of a teaching project in these fields and express some propositions of improvement referring to the didactic principles and to the scientific and expert knowledge about the learning approaches.

Main themes

The course aims at drawing different methodological principles needed for the structuration and organisation of the learning related to the maths referring to various theoretical frames. An epistemological thinking will be carried on the problem solving as a characteristic of the mathematical activity and as an educational method in a transverse perspective. From a methodological point of view, the case studies and the analysis of educational devices and of learning approaches will be favoured.

Content and teaching methods

* On the theoretical level :

- Analysis of the late trends in the field of the basic learning in maths (didactic, piagetian, cognitivist, ...).
- Study of the different methodological principles needed for the structuration and organisation of the learning related to the maths.
- Epistemological thinking on the problem solving as a characteristic of the mathematical activity and as an educational method.
- Study of the " socles de compétences " and of the " Programme Intégré".

* On the methodological level :

- Practice of some learning approaches and analysis.
- Emergence of the representations concerning the maths in the school situation.
- Analysis of the pupils approaches in order to identify the underlying learning approaches (mistakes, ...).
- Case study and building of didactical sequences.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

It follows educational methods fitted for adults including the link between theory and practice, group work, formative assessment and steps of individual and group appropriation of the contents. In this course, the devices presented must be consistent with the learned principles.

Other credits in programs

FOPA20	Licence à durée réduite en sciences de l'éducation	(4 credits)
FOPA21MS	Première année du Master en sciences de l'éducation, à finalité spécialisée	(4 credits)
FOPA21MS/PP	Première année du Master en sciences de l'éducation, à finalité spécialisée (psychopédagogie et formation des enseignants)	(4 credits)
FOPA22	Deuxième licence en sciences de l'éducation	(6 credits)
FOPA22MS	Deuxième année du Master en sciences de l'éducation, à finalité spécialisée	(4 credits)
FOPA22MS/PP	Deuxième année du Master en sciences de l'éducation, à finalité spécialisée (psychopédagogie et formation des enseignants)	(4 credits)
FOPA23	Troisième licence en sciences de l'éducation	(6 credits)