



SC2321

Natural sciences education

[22.5h] 2 credits

Teacher(s): Myriam De Kesel, Pierre Hautier, Bernard Tinant, Cécile Vander Borgh
Language: French
Level: Second cycle

Aims

This course, which is complementary to the general didactics course, has as its priority the development by future teachers of the ability to:- develop teaching modules that make substantial use of active teaching methods, take a multidisciplinary approach, focus on the acquisition of skills, and make connections between science, technology, and society;- develop teaching modules that focus on experimental practice;- clarify their conception about science and science teaching.

Main themes

Natural Science Education course offers an opportunity to consider the aims and objectives of science teaching, as well as the impact these have on teaching practices. It also involves the analysis of various ways of teaching, the use of these in experimental disciplines, and ways of evaluating pupil achievement. Science syllabi, school textbooks, and other tools used in secondary education (Internet sites, video, and CD-ROMs) are analysed both from the point of view of the scientific approach and from that of the scientific concepts dealt with. Connections will be made with the epistemology and history of science. The method used will rely on active teaching methods: problem-based, project-based, and exercise-based learning. The content dealt with will draw to a considerable extent on the results of current research in Science Education.

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

Folder of reading material. Compulsory course. Must be followed after or in parallel with the general didactics course. In order to relate this course as closely as possible to teaching practices, the assistance of practising teachers will be called on.

Programmes in which this activity is taught

SC2A Agrégation de l'enseignement secondaire supérieur (sciences exactes)

Other credits in programs

SC2A/G Agrégation de l'enseignement secondaire supérieur (Géographie) (Géographie)

SC2A/M Agrégation de l'enseignement secondaire supérieur (Mathématique) (Mathématique)

SC2A/P Agrégation de l'enseignement secondaire supérieur (Physique) (Physique)

SC2A/S Agrégation de l'enseignement secondaire supérieur (Sciences naturelles) (Sciences naturelles)

Mandatory