Faculty of Sciences

MAT1321   Functional analysis and partial differential equations

[45h+45h exercises] 8 credits

This course is taught in the 1st semester

Teacher(s):   Michel Willem
Language: French
Level: First cycle

Aims

The course of functional analysis covers fundamental properties of functional spaces and the use of these spaces to solve elliptic problems. The student will have to master the general tools of functional analysis and their concrete applications.

Main themes

Banach spaces, Hilbert spaces, Lebesgue spaces, Sobolev spaces, dual spaces, elliptic problems.

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

Prerequisite : MAT 1221: Mathematical analysis 3

Other credits in programs

| FSA13BA | Troisième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil | (8 credits) | |
| MATH13BA | Troisième année de bachelier en sciences mathématiques | (8 credits) | Mandatory |