Faculty of Sciences

MAT1141   Geometry I

[45h+30h exercises] 7 credits

This course is taught in the 2nd semester

Teacher(s):   Francis Borceux
Language: French
Level: First cycle

Aims

This course completes the skills acquired in
the courses of analysis and algebra, by dealing with various
situations in the context of plane and space geometry. Students
are invited to develop a geometric intuition, as well as to
express it in the language of algebra and analysis.

Main themes

Euclidean geometry : euclidean spaces, quadratic
forms ; curves and surfaces in the three dimensional space

Content and teaching methods

The course has two parts. The first one concerns
euclidian and affine spaces, with a particular interest to
classifications of conics; the second one will concern the
analytic theory of curves and surfaces : the curvature and torsion
of a curve, the Gauss curvature of a surface.

Other credits in programs

MATH11BA	Première année de bachelier en sciences mathématiques	(7 credits)	Mandatory
PHYS11BA	Première année de bachelier en sciences physiques	(7 credits)	Mandatory