Faculty of Sciences

MAT1341   Courbes algébriques

[30h] 3 credits

Teacher(s):	Francis Borceux, Yves Félix (supplée Francis Borceux)
Language:	French
Level:	First cycle

Aims

The zero set of a polynomial in two variables can be seen as a geometric object, called a plane algebraic curve. Algebraic curves furnish a beautiful playground to initiate oneself to some of the basic ideas of modern algebraic geometry. The course aims at showing how the subject combines in a very attractive ways several important themes of mathematics.

Main themes

Affine and projective algebraic curves. Intersection fo two curves, smooth and singular points, intersection multiplicity. Elliptic curves, Riemann surface of an algebraic curve.

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

Precursorycourses MAT 1222 Analyse complexe
Supplemental courses Complex geometry (M2)
Evaluation Written examination