Faculty of Sciences

MATH2120   Commutative algebra

[30h+15h exercises] 4.5 credits

This course is taught in the 2nd semester

Teacher(s):	Jean-Pierre Tignol
Language:	French
Level:	Second cycle

Aims

The course discusses the conceptual bases and methods to study solutions of systems of algebraic equations over the field of complex numbers.

Main themes

The course is an introduction to computational algebra in the ring of polynomials in several indeterminates, with a view toward the fundamental notions of algebraic geometry.

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

Prerequisites: elements of linear algebra (first cycle level).
Evaluation: oral examination. The exam includes exercises solving and summary questions on the overall course.
Support: Cox David, Little John, O'Shea Donald: Ideals, varieties and algorithms. An introduction to computational algebraic geometry and commutative algebra, Springer 1992.

Other credits in programs

MAP21	Première année du programme conduisant au grade d'ingénieur (4.5 credits) civil en mathématiques appliquées		
MAP22	Deuxième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(4.5 credits)	
MATH21/G	Première licence en sciences mathématiques (Général)	(4.5 credits)	Mandatory