MATH2395 Discrete mathematics - combinatorial strucutres

[30h] 3 credits

This course is taught in the 2nd semester

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

Aims

The course aims at giving the conceptual bases and methods allowing to build and analyze finite fields and various combinatorial structures associated with them, such as finite projective planes, block designs ans error correcting codes.

Main themes

The course gives an introduction to certain domains of algebra, including the theory of error correcting codes, the basic notion from a theoretical viewpoint being the finite field structure.

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

Prerequisites: Elements of linear algebra (first cycle level).
Evaluation: oral examination including summary questions on overall course.
Support: F.J. MacWilliams, N.J.A. Sloane: The theory of error-correcting codes, North-Holland, 1983; H.J. Ryser: Combinatorial Mathematics, Carus Math. Monographs, MAA, 1963.

Programmes in which this activity is taught

INFO2	Ingénieur civil informaticien

Other credits in programs

INFO22	Deuxième année du programme conduisant au grade d'ingénieur civil informaticien	(3 credits)
MAP21	Première année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(3 credits)
MAP22	Deuxième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(3 credits)
MAP23	Troisième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(3 credits)
MATH22/G	Deuxième licence en sciences mathématiques	(3 credits)