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Université catholique de Louvain

Multilinear algebra and group theory

6.0 credits

LMAT1231

2010-2011

30.0 h + 30.0 h

).0 h

Teacher(s) :	Gran Marino ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Prerequisites :	A first course in linear algebra
Main themes :	Elements of the theory of groups: quotients groups and the isomorphism theorems, abelianisation, cyclic groups, group actions and symmetric groups. Complements of linear algebra: quotient spaces, duality of finite-dimensional vector spaces. Multilinear algebra: basic properties of the tensor product of vector spaces and of linear maps.
Aims :	This course is an introduction to group theory and to multilinear algebra. In this context we consider some universal constructions which are important in algebra and geometry. The course aims to develop reasoning and calculating skills in the context of algebraic structures. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Other infos :	Prerequisites: A first course in linear algebra
Cycle and year of study :	 <u>Bachelor in Mathematics</u> <u>Bachelor in Economics and Management</u> <u>Bachelor in Engineering</u> <u>Bachelor in Physics</u>
Faculty or entity in charge:	МАТН