

MATHEMATICS - 42nd cycle

course	SSD	Type of activity	language	hrs	credits	year of attendance	final test	optional/mandatory	curriculum
INTRODUCTION TO LIE ALGEBRAS	MATH-02/A	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
HOMOLOGICAL ALGEBRA	MATH-02/A	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
ADVANCED TOPICS IN PDES	MATH-03/A	lesson	English	24	3	1 st	yes	optional	Mathematical Analysis
ADVANCED TOPICS IN CALCULUS OF VARIATIONS	MATH-03/A	lesson	English	24	3	1 st	yes	optional	Mathematical Analysis
NUMERICAL APPROXIMATION OF PARAMETRIC PDES	MATH-05/A	lesson	English	24	3	1 st	yes	optional	Numerical Analysis and Mathematical Modelling
GEOMETRIC ANALYSIS	MATH-03/A	lesson	English	24	3	1 st	yes	optional	Mathematical Analysis
CELESTIAL MECHANICS	MATH-04/A	lesson	English	24	3	1 st	yes	optional	Mathematical Physics
ADVANCED TOPICS IN NONLINEAR PDES AND CONTROL THEORY	MATH-03/A	lesson	English	24	3	2 nd	yes	optional	Mathematical Analysis
ALGEBRAIC SURFACES	MATH-02/B	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
INTRODUCTION TO ENUMERATIVE GEOMETRY	MATH-02/B	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
CLASSICAL LAGRANGIAN AND HAMILTONIAN FIELD THEORY WITH SYMMETRIES	MATH-04/A	lesson	English	24	3	1 st	yes	optional	Mathematical Physics
INNOVATIVE NUMERICAL METHODS FOR PDES AND SCIENTIFIC MACHINE LEARNING	MATH-05/A	lesson	English	24	3	2 nd	yes	optional	Numerical Analysis and Mathematical Modelling
TORIC VARIETIES	MATH-02/B	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
INTEGRABILITY THROUGH SYMMETRY: KDV AND KP	MATH-04/A	lesson	English	24	3	1 st	yes	optional	Mathematical Physics
FLUCTUATIONS IN MARKOV PROCESSES	MATH-03/B	lesson	English	24	3	1 st	yes	optional	Probability, Statistics and Mathematical Finance
LIMIT THEOREMS FOR FUNCTIONALS OF GAUSSIAN FIELDS: THEORY AND APPLICATIONS	MATH-03/B	lesson	English	24	3	2 nd	yes	optional	Probability, Statistics and Mathematical Finance
REAL GEOMETRY	MATH-02/B	lesson	English	24	3	2 nd	yes	optional	Algebra and Geometry
MATHEMATICAL THEORIES OF LIQUID CRYSTALS	MATH-04/A	lesson	English	24	3	1 st	yes	optional	Mathematical Physics
LOCAL ALGEBRA	MATH-02/A	lesson	English	24	3	1 st	yes	optional	Algebra and Geometry
NONLINEAR ELASTICITY AND CALCULUS OF VARIATIONS	MATH-04/A	lesson	English	24	3	1 st	yes	optional	Mathematical Physics
Total hrs/credits				480	60				