

Jan Kochanowski University of Kielce  
 Academic year 2022/2023  
 Faculty of Natural Sciences  
 Department of Mathematics  
 Field of study: Mathematics  
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MATHEMATICS					
Course unit	Przedmiot	Type	ECTS	Completion requirements	Academic hours per semester
<b>WINTER SEMESTER (1)</b>					
Mathematical Analysis III	Analiza matematyczna III	Lecture and classes	8	Exam and graded credit	120 (60 + 60)
Algebra and Number Theory	Algebra z teorią liczb	Lecture and classes	7	Exam and graded credit	90 (45+45)
Introduction to Differential Equations	Wstęp do równań różniczkowych	Lecture and classes	2	Exam and graded credit	30 (15 + 15)
Introduction to differential geometry	Wstęp do geometrii różniczkowej	Lecture and classes	4	graded credit	60 (30+30)
Topology I	Topologia I	Lecture and classes	4	Exam and graded credit	60 (30+30)
Statistics I	Statystyka I	Lecture and classes	4	graded credit	60 (30+30)
Measure and integral Theory	Teoria miary i całki	Lecture and classes	4	Exam and graded credit	60 (30+30)
Complex Analysis	Analiza zespolona	Lecture and classes	4	Exam and graded credit	60 (30+30)
Topology II	Topologia II	Lecture and classes	4	Exam and graded credit	60 (30+30)
Differential Equations	Równania różniczkowe	Lecture and classes	4	Exam and graded credit	60 (30+30)
BA Diploma Seminar	Seminarium dyplomowe	seminar	3	graded credit	30
Bachelor Thesis Workshop	Pracownia dyplomowa	tutorial	3	graded credit	30
MR Diploma Seminar II	Seminarium magisterskie II	seminar	3	graded credit	30

Masters Thesis Workshop II	Pracownia magisterska II	tutorial	3	graded credit	30
Monographical lecture (Bachelor)	Wykład monograficzny (licencjackie)	Lecture	1	graded credit	15
Monographical lecture II (Master)	Wykład monograficzny (magisterskie)	Lecture	2	graded credit	30
Graph Theory *	Teoria grafów (fakultatywny)	Lecture and classes	4	graded credit	45 (15 + 30)
Geometry of Banach spaces *	Geometria przestrzeni Banacha (fakultatywny)	Lecture and classes	4	graded credit	45 (15 + 30)
Integral transformations *	Transformacje całkowe (fakultatywny)	Lecture and classes	4	graded credit	45 (15 + 30)
Galois Theory *	Teoria Galois (fakultatywny)	Lecture and classes	4	graded credit	45 (15 + 30)
<b>SUMMER SEMESTER (2)</b>					
Mathematical Analysis IV	Analiza matematyczna IV	Lecture and classes	4	graded credit	60 (30 + 30)
Functional analysis	Analiza funkcjonalna	Lecture and classes	4	Exam and graded credit	60 (30+30)
Algebraic geometry	Geometria algebraiczna	Lecture and classes	3	Exam and graded credit	45 (15+30)
Analysis of Algorithms and Numerical Methods	Metody numeryczne i analiza algorytmów	Lecture and classes	3	graded credit	45 (15 + 30)
Monographical lecture (Bachelor)	Wykład monograficzny	lecture	2	Exam	30
Monographical lecture (Master)	Wykład monograficzny	lecture	2	graded credit	30
BA Diploma Seminar	Seminarium dyplomowe	seminar	6	graded credit	30
Bachelor Thesis Workshop	Pracownia dyplomowa	tutorial	7	graded credit	30
Master Diploma Seminar I	Seminarium magisterskie I	seminar	2	graded credit	30
Master Thesis Workshop I	Pracownia magisterska I	tutorial	2	graded credit	30
Master Diploma Seminar III	Seminarium magisterskie III	seminar	4	graded credit	30
Masters Thesis Workshop III	Pracownia magisterska III	tutorial	6	graded credit	30

Category Theory *	Teoria kategorii (fakultatywny)	Lecture and classes	4	Exam and graded credit	45 (15 + 30)
Signals Analysis *	Analiza sygnałów (fakultatywny)	Lecture and classes	3	graded credit	45 (15 + 30)
Fractals Theory *	Teoria fraktali (fakultatywny)	Lecture and classes	4	graded credit	45 (15 30)

\* - to be confirmed