



Universidad Autónoma
de Madrid

MATHEMATICS DEGREE

ACADEMIC YEAR 2020/2021

Studies	Mathematics Degree
Centre	Faculty of Sciences C/ Darwin, 2 Campus de Cantoblanco 28049 – Madrid Phone: 914978264 Web page
Knowledge Branch	Sciences
ECTS Credits	240

ECTS CREDITS	
Basic training (FB)	84
Compulsory (OB)	60
Optional (OP)	84
External practical (PE)	-
End-of-degree Project (TFG)	12
Total	240

FIRST YEAR

Code	Subject	Credits	Type	Semester
<u>16440</u>	LABORATORY	6	FB	Annual
<u>16434</u>	CALCULUS I	9	FB	1
<u>16435</u>	LINEAR ALGEBRA I	9	FB	1
<u>16436</u>	SETS AND NUMBERS	9	FB	1
<u>16437</u>	CALCULUS II	9	FB	2
<u>16438</u>	LINEAR ALGEBRA AND GEOMETRY	9	FB	2
<u>16439</u>	NUMERICAL ANALYSIS	9	FB	2



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SECOND YEAR

Code	Subject	Credits	Type	Semester
<u>16441</u>	ANALYSIS	9	OB	1
<u>16442</u>	ALGEBRAICS STRUCTURES	9	OB	1
<u>16443</u>	DISCRETE MATHEMATICS	6	FB	1
	OPTIONAL SUBJECT	6	FB	1
<u>16444</u>	DIFFERENTIAL EQUATIONS	9	OB	2
<u>16445</u>	GEOMETRY OF CURVES AND SURFACES	9	OB	2
<u>16446</u>	PROBABILITY I	6	FB	2
	OPTIONAL SUBJECT	6	FB	2

THIRD YEAR

Code	Subject	Credits	Type	Semester
<u>16447</u>	TOPOLOGY	6	OB	1
<u>16448</u>	STATISTICS I	6	OB	1
	OPTIONAL SUBJECTS	18	OP	1
<u>16449</u>	COMPLEX ANALYSIS I	6	OB	2
<u>16450</u>	MODELIZATION	6	OB	2
	OPTIONAL SUBJECTS	18	OP	2

FOURTH YEAR

Code	Subject	Credits	Type	Semester
	OPTIONAL SUBJECTS	48	OP	1 and 2
<u>16451</u>	END-OF-DEGREE PROJECT	12	TFG	Annual

OPTIONAL SUBJECTS

ROUTE: A GROUP

Code	Subject	Credits	Type	Semester
<u>16454</u>	NUMERICAL METHODS FOR ODE	6	OP	1
<u>16456</u>	GALAOIS THEORY	6	OP	1
<u>16457</u>	INTEGRATION AND MEASURE THEORY	6	OP	1
<u>16452</u>	PARTIAL DIFFERENTIAL EQUATIONS	6	OP	2
<u>16453</u>	DIFFERENTIAL GEOMETRY	6	OP	2
<u>16455</u>	PROBABILITY II	6	OP	2



ROUTE: B GROUP

Code	Subject	Credits	Type	Semester
<u>16462</u>	STATISTICS II	6	OP	1
<u>16465</u>	HISTORY OF MATHEMATICS	6	OP	1
<u>16467</u>	LOGIC	6	OP	1
<u>16468</u>	NUMERICAL METHODS FOR PDE	6	OP	1
<u>16470</u>	ALGEBRAIC NUMBER THEORY	6	OP	1
<u>16471</u>	CRYPTOGRAPHY AND CODING THEORY	6	OP	1
<u>16473</u>	REAL ANALYSIS	6	OP	1
<u>16458</u>	COMMUTATIVE ALGEBRA	6	OP	2
<u>16459</u>	FUNCTIONAL ANALYSIS	6	OP	2
<u>16461</u>	MATHEMATICAL ECONOMY AND FINANCES	6	OP	2
<u>16463</u>	GEOMETRY AND TOPOLOGY	6	OP	2
<u>16466</u>	OPERATION RESEARCH	6	OP	2
<u>16469</u>	DIFFERENTIAL EQUATIONS AND APPLICATIONS	6	OP	2
<u>16472</u>	COMPLEX ANALYSIS II	6	OP	2
16460	COMBINATORIAL AND ANALYTIC NUMBER THEORY (*)	6	OP	
16464	PROJECTIVE GEOMETRY (*)	6	OP	
16474	SEMINAR (*)	6	OP	

(*) Not offered in 2020/2021

ROUTE: C GROUP

Code	Subject	Credits	Type	Semester
	UNITS FROM OTHER DEGREE SUBJECTS WITH A SUBSTANTIAL USE OF MATHEMATICS		OP	1 and 2

ROUTE: D GROUP

Code	Subject	Credits	Type	Semester
<u>16475</u>	EXTERNAL PRACTICAL	6	OP	1 and 2
	LANGUAGES	6	OP	1 and 2
	TRANSVERSAL UNITS	6	OP	1 and 2

The student will have to take 84 ECTS in optional subjects, to be chosen between groups A to D (it should be noticed that at least 24 ECTS must belong to group A and at least other 24 ECTS must belong to the union of groups A and B)