

Mathematics							
Module Code	Module Title	ECTS Credits	Semester/ Duration	% Exam	% CA	Pre-requisite	Notes
MAU11100	Linear Algebra	10	Full Year	80	20	None	
MAU11400	Mechanics	10	Full Year	80	20	none	Please contact CLANCYEM@tcd.ie directly to enroll
MAU22200	Advanced Analysis	10	Full Year	85	15	MAU11204	Please contact CLANCYEM@tcd.ie directly to enroll
MAU22C00	Discrete Mathematics	10	Full Year	60	40	CSU11001	Please contact CLANCYEM@tcd.ie directly to enroll
MAU11601	Introduction to Programming	5	Semester 1	60	40		Please contact CLANCYEM@tcd.ie directly to enroll
MAU22101	Abstract Algebra I: Group Theory	5	Semester 1	80	20	None	
MAU22E01	Engineering Mathematics III	5	Semester 1	90	10	MAU11E02	
MAU22S01	Multivariable Calculus For Science	5	Semester 1	80	20	MAU11S02 Mathematics for scientists II	
MAU22S03	Fourier Analysis For Science	5	Semester 1	80	20	MAU11S02 Mathematics for scientists II	
MAU23101	Introduction To Number Theory	5	Semester 1	85	15	None	
MAU23203	Analysis In Several Real Variables	5	Semester 1	90	10	MAU11100 Linear algebra, MAU11202 Advanced calculus and MAU11204 Analysis on the real line	
MAU23205	Ordinary Differential Equations	5	Semester 1	80	20	MAU11100 Linear algebra and MAU11204 Analysis on the real line	
MAU23401	Advanced Classical Mechanics I	5	Semester 1	80	20	MAU11400 Mechanics	
MAU23403	Equations Of Mathematical Physics I	5	Semester 1	90	10	MAU11202 Advanced calculus	
MAU33E01	Engineering Mathematics V	5	Semester 1	80	20	MAU22E02 Engineering mathematics IV	

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MAU34101	Galois Theory	5	Semester 1	TBD	TBD		Please contact CLANCYEM@tcd.ie directly to enroll
MAU34103	Lie Algebras and Lie Groups	5	Semester 1	TBD	TBD		Please contact CLANCYEM@tcd.ie directly to enroll
MAU34205	Topics in Complex Analysis 1	5	Semester 1	TBD	TBD		Please contact CLANCYEM@tcd.ie directly to enroll
MAU34301	Differential Geometry	5	Semester 1	100	0	MAU23206 Calculus on manifolds	
MAU34401	Classical Field Theory	5	Semester 1	80	20	MAU23402 Advanced classical mechanics II	
MAU34403	Quantum Mechanics I	5	Semester 1	90	10	MAU23402 Advanced classical mechanics II	
MAU34405	Statistical Physics I	5	Semester 1	80	20	AU23402 Advanced classical mechanics II	
MAU34601	Practical Numerical Simulations	5	Semester 1	60	40	MAU11400 Mechanics and one of MAU11404 Techniques in theoretical physics OR MAU23205 Ordinary differential equations	
MAU22102	Abstract Algebra II: Fields, Rings, Modules	5	Semester 2	85	15	MAU22101 Group theory	
MAU22E02	Engineering Mathematics IV	5	Semester 2	90	10	MAU22E01 Engineering mathematics III	
MAU22S02	Vector Calculus For Science	5	Semester 2	80	20	MAU22S01 Multivariable calculus for science	
MAU23204	Introduction To Complex Analysis	5	Semester 2	<u>100</u>	0	MAU11204 Analysis on the real line OR MAU23203 Analysis in several real variables	

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MAU23206	Calculus On Manifolds	5	Semester 2	90	10	MAU23203 Analysis in several real variables	
MAU23302	Euclidean And Non-Euclidean Geometry	5	Semester 2	100	0	None	
MAU23402	Advanced Classical Mechanics II	5	Semester 2	65	35	MAU23401 Advanced classical mechanics I	
MAU34402	Classical Electrodynamics	5	Semester 2	80	20	MAU34401 Classical field theory	
MAU34404	Quantum Mechanics II	5	Semester 2	80	20	MAU34403 Quantum mechanics I	
MAU34406	Statistical Physics II	5	Semester 2	80	20	MAU34405 Statistical physics I	
MAU44404	General Relativity	5	Semester 2	75	25	MAU34301 Differential geometry and MAU34402 Classical electrodnamics	
MAU44406	The standard model of elementary particle physics	5	Semester 2	100	0	MAU34402 Classical electrodynamics and MAU34404 Quantum mechanics II	
MAU34102	Commutative Algebra	5	semester 2	TBD	TBD		Please contact CLANCYEM@tcd.ie directly to enroll
MAU34204	Partial Differential Equations	5	semester 2	TBD	TBD		Please contact CLANCYEM@tcd.ie directly to enroll
<p style="text-align: center;">For more information on module descriptors please click the module code or contact CLANCYEM@tcd.ie</p> <p style="text-align: center;">Please note that Modules relate to the 2023/24 Academic Year and are subject to change</p>							