

BSc (Hons) Statistics

Mathematical Sciences / Faculty of Science and Engineering

Year 1 Modules

Module Code	Module Title	Credits
CELEN120	Foundation Algebra	20
CELEF008	Introduction to Academic Skills	10
CELEN122	Foundation Electromagnetism and Mechanics	20
CELEN086	Introduction to Algorithms	10
CELEN037	Foundation Calculus and Mathematical Techniques	20
CELEN052	English in Specific Academic Contexts B (Engineering; Comp Sci; Env'mental Sci & Architecture)	20
CELEN082	Oral Communication Skills B	10
CELEN087	Introduction to Mathematical Software and Programming	10

Year 2 Modules

Compulsory Modules

Module Code	Module Title	Credits
MATH1029	Applied Mathematics	20
MATH1108	Probability and Statistics 1	20
MATH1109	Core Mathematics	60

Optional Modules

Module Code	Module Title	Credits
BUSI1122	Introduction to Accounting	10
MATH1052	Foundations of Pure Mathematics	10
MMME1019	Thermodynamics & Fluid Mechanics 1	20
BUSI1113	Fundamentals of Financial & Management Accounting	20
BUSI1070	Business Finance	10
BUSI1073	The Digital Economy	10
MATH1053	Mathematical Structures	10

Year 3 Modules

Compulsory Modules

Module Code	Module Title	Credits
MATH2019	Introduction to Scientific Computation	20
MATH2108	Probability and Statistics 2	20
MATH2101	Complex Analysis 1	10
MATH2105	Scientific Computation	20
MATH2110	Statistics 3	10
MATH2102	Real Analysis	10

Optional Modules

Module Code	Module Title	Credits
MATH2106	Vector Calculus and Electromagnetism	20
MATH2107	Classical & Quantum Mechanics	20
MATH2104	Differential Equations 1	20

Year 4 Modules

Compulsory Modules

Module Code	Module Title	Credits
MATH4045	Mathematics Group Projects	20

Optional Modules

Group 1: Students should take a minimum of 60 credits and a maximum of 100 credits from this group.

Module Code	Module Title	Credits
MATH3015	Mathematical Finance	20
MATH3013	Statistical Inference	20
MATH3014	Stochastic Models	20
MATH3026	Time Series Analysis	20
MATH3029	Applied Statistical Modelling	20
MATH3030	Multivariate Analysis	20

Group 2: Students should take a minimum of 0 credits and a maximum of 40 credits from this group.

Module Code	Module Title	Credits
MATH3004	Game Theory	10
MATH3009	Mathematical Medicine and Biology	20
MATH3010	Advanced Quantum Theory	20
MATH3011	Coding and Cryptography	10
MATH3024	Communicating Mathematics	20
MATH3018	Relativity	20
MATH3036	Scientific Computation and Numerical Analysis	20
MATH3027	Optimization	20