NUI Galway / OÉ Gaillimh

B.Sc. Financial Mathematics and Economics

For 1st year students Ac.Yr 2021/2022

B.Sc. Financial Mathematics - 1FM1					
1st year			Sem	Pre-requisites/Notes	Exclusion-requisites
AY104	Introduction to Financial Accounting	Core	I		
CS103	Computer Science	Core	I		
EC1108	Skills for Economics I	Core	I		
EC135	Principles of Microeconomics	Core	I		
EC136	Principles of Macroeconomics	Core	II		
MA180	Mathematics (15ECTS)	Core	I+II		
MA1993	Mathematics Of Finance	Core	I+II		
ST1111	Probability Models	Core	I		
ST1112	Statistical Methods	Core	II		
MP191	Mathematical Methods I	Core	II		

For 2nd year students Ac.Yr 2022/2023 *

B.Sc. Financial Mathematics - 2FM1					
2nd year			Sem	Pre-requisites/Notes	Exclusion-requisites
CS2101	Programming for Science and Finance	Core	I		
EC269	Intermediate Microeconomics	Core	I		
EC247	Introduction to Financial Economics	Core	II		
EC268	Intermediate Macroeconomics	Core	II		
MA2286	Differential Forms	Core	I		
MA284	Discrete Mathematics	Core	I		
MA283	Linear Algebra	Core	II		
MA2287	Complex Analysis	Core	II		
ST2003	Random Variables	Core	I		
ST2004	Statistical Inference	Core	II		
MP231	Mathematical Methods I	Core	I		
MP232	Mathematical Methods II	Core	II		

* Syllabus structure of any future years may be subject to change due to ongoing annual syllabus review.

For 3rd year students Ac.Yr 2023/2024 *

B.Sc. Financial Mathematics - 3FM2					
3rd year			Sem	Pre-requisites/Notes	Exclusion-requisites
AY314	Business Finance II	Core	II		
EC3101	Microeconomics and Public Policy	Core	I		
EC369	Money And Banking	Core	I		
EC3102	Macroeconomics and Public Policy	Core	II		
EC362	Economics Of Financial Markets	Core	II		
MA3343	Groups	Core	I		
MA341	Metric Spaces	Core	I		
MA3991†	Actuarial mathematics Cashflow models	Core	I	2yr Cycle, available in 22.23	
MA3992 ††	*Actuarial mathematics Life contingencies 1, pricing and reserving*	*Core*	*I*	*2yr Cycle, not available in 22.23*	

MA342	Topology	Core	II		
ST313	Applied Regression Models	Core	I		
MP307	Modelling II	Core	II		
CS4423	Networks	Core	II		
MP491	Non-Linear Systems	Core	II		

† Offered on a 2yr Cycle, next available in 2021.22, †† Offered on a 2yr Cycle, next available in 2022.23.

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For 4th year students Ac.Yr 2024/2025 *

B.Sc. Financial Mathematics - 4FM2					
4th year			**Sem**	**Pre-requisites/Notes**	**Exclusion-requisites**
MM4000 or EC471	Final Year Project (10ECTS)	Core	I+II		
CS4423	Networks	Core	II		
EC4100	Derivatives and Risk Management	Core	II		
EC420	International Monetary Economics	Core	II		
MA385	Numerical Analysis I	Core	I		
MA490	Measure Theory	Core	I		
MA3991 †	*Actuarial mathematics Cashflow models*	*Core*	*I*	*2yr Cycle, not available in 23.24*	
MA3992††	Actuarial mathematics Life contingencies 1, pricing and reserving	Core	I	2yr Cycle, available in 23.24	
MA495	Actuarial Mathematics: Life Contingencies II	Core	II		
MA418	Differential Equations With Financial Derivatives	Core	II		
ST413	Statistical Modelling	Core	I		
Select one module from the following electives:					
EC3105	Econometrics	Elective	I		
EC423	Ireland in the Global Economy	Elective	I		
SBE3006	Entrepreneurial Finance	Elective	I		

† Offered on a 2yr Cycle, next available in 2021.22, †† Offered on a 2yr Cycle, next available in 2022.23.

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