

## Maths Module Guidance

- NTU Math students normally make a choice of modules with credits totalling 120 NTU (60 ECTS) credits per year, or 60 NTU (30 ECTS) credits per semester, but you should check with your co-ordinator in your home university before leaving, as to what is specifically required of you.
- Students should be made aware that they are only able to choose modules from **one course and one level**. Due to strict timetabling restrictions we are not able to offer combinations of modules across different courses and years.
- If the content of your home course requires you to undertake a Level 6 module alongside Level 5 modules (or vice versa), we *may* be able to accommodate this request, but this cannot be guaranteed and a 'back up' Level 5 or 6 module should be chosen too.
- All modules are taught in English.

<b>Modules available to Math Science Exchange Students are listed below.</b>				
<b>Subject / Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Number of NTU Credits</b>	
<b>Semester One</b>				
<b>Level 5</b>				
MATH28011	Numerical Methods for Ordinary Differential Equations	5	10	
MATH28021	Differential Equations and Transform Methods	5	10	
MATH28031	Probability and Statistical Inference	5	10	
MATH28041	Problem Solving	5	10	
MATH28061	Introduction to Financial Mathematics	5	10	
MATH28071	Quality Control for Business	5	10	
MATH28091	Linear Algebra	5	10	
<b>Level 6</b>				
MATH38011	Applied Statistics	6	10	
MATH38031	Numerical Analysis	6	10	
MATH38051	Stochastic Processes	6	10	
MATH38061	Financial and Insurance Mathematics	6	10	
MATH38071	Analytical Methods for PDEs	6	10	
MATH38091	Statistical Modelling of Medical Data	6	10	
MATH38111	Graph Theory	6	10	
<b>Level 7</b>				
MATH48011	Coding Theory	7	10	
MATH48031	Computational Statistics	7	10	
MATH48051	Differential Equations in Biology	7	10	
MATH48071	Mathematical Recipes	7	10	
<b>Semester Two</b>				
<b>Level 5</b>				
MATH28051	Problem Solving 2	5	10	
MATH28081	Mathematical Modelling for Business	5	10	

	<b>Level 6</b>			
	MATH38021	Applied Statistics 2	6	10
	MATH38041	Dynamical Systems	6	10
	MATH38081	Numerical Methods for PDEs	6	10
	MATH38101	Statistical Modelling of Financial Data	6	10
	<b>Level 7</b>			
	MATH48021	Cryptography	7	10
	MATH48041	Statistical Data Analysis	7	10
	MATH48061	Networks in Biology	7	10
	<b>Full Year</b>			
	<b>MATH003 BSc Mathematics Level 5</b>			
	MATH20451	Differential Equations & Transform Methods	5	20
	MATH20461	Probability and Statistical Inference	5	20
	MATH20441	Numerical Methods for Ordinary Differential Equations	5	20
	MATH20301	Linear Algebra and its Applications	5	20
	MATH20471	Advanced Calculus	5	20
	MATH20481	Problem Solving	5	20
	<b>MATH003 BSc Mathematics Level 5</b>			
	MATH30323	Project in Mathematics	6	20
	Choose two of these four modules:			
OR	MATH34021	Coding Theory & Cryptography*	6	20
	MATH30451	Linear Systems	6	20
	MATH30471	Statistical Modelling	6	20
	MATH34041	Topics in Mathematical Biology*	6	20
	Choose two of these four modules:			
OR	MATH34031	Computational Statistics & Data Analysis*	6	20
	MATH30261	Differential and Integral Equations	6	20
	MATH30411	Numerical Analysis & Dynamical Systems	6	20
	MATH30421	Stochastic Processes	6	20
	Choose one of these four modules:			
OR	MATH30301	Applied Statistics	6	20
	MATH30461	Topics in Applied Mathematics	6	20
	MATH30481	Topics in Pure Mathematics	6	20
	MATH30461	Professional Mathematics Skills	6	20