

## Bachelor Applied Mathematics

### First Year

<b>Module 1</b> 201700156	<b>Structures and Models</b>	15 EC
	<i>Mathematics A and B1</i>	4 EC
	<i>Linear Structures I</i>	6 EC
	<i>Programming and Modelling</i>	5 EC
	<i>Coordinator: B.M.Geveling</i>	
<b>Module 2</b> 201700140	<b>Mathematical Proof Techniques</b>	15 EC
	<i>Mathematics B2</i>	3 EC
	<i>Linear Structures II</i>	3 EC
	<i>Analysis</i>	3 EC
	<i>Linear Optimization</i>	2 EC
	<i>Project: Prooflab</i>	4 EC
	<i>Coordinator: J. de Jong</i>	
<b>Module 3</b> 201300182	<b>Signals and Uncertainty</b>	15 EC
	<i>Signals and Transformations</i>	5 EC
	<i>Probability</i>	5 EC
	<i>Project: Incl. Intercultural Team Workshop</i>	5 EC
	<i>Coordinator: A.A.Stoorvogel</i>	
<b>Module 4</b> 201400535	<b>Magnetic Fields and Electromagnetism</b>	15 EC
	<i>Vector Calculus</i>	5 EC
	<i>Electromagnetism</i>	5 EC
	<i>Project and Philosophy of Science</i>	5 EC
	<i>Coordinator: J.J.W.van der Vegt</i>	

### Second Year

<b>Module 5</b> 201400218	<b>Mathematical Statistics and Analysis</b>	15 EC
	<i>Statistics</i>	5 EC
	<i>Analysis II</i>	5 EC
	<i>Project</i>	3 EC
	<i>Presentation Skills</i>	2 EC
	<i>Coordinator: P.K.Mandal</i>	
<b>Module 6</b> 201500103	<b>Dynamic Systems</b>	15 EC
	<i>Differential Equations and Numerical Methods</i>	4,5 EC
	<i>Systems Theory and Numerical Methods</i>	4,5 EC
	<i>Numerical Methods Practical</i>	2,25 EC
	<i>Project</i>	3,75 EC
	<i>Coordinator: H.G.E.Meijer</i>	

<b>Module 7</b> 201700304	<b>Discrete Structures and Efficient Algorithms</b>	15 EC
------------------------------	---	-------

<i>Discrete Structures and Algorithms</i>	5 EC
<i>Algebra &amp; Finite Automata</i>	6,5 EC
<i>Research Project: Similarity</i>	3,5 EC
Coordinator: M.J.Uetz	

<b>Module 8</b> 201400434	<b>Modelling and Analysis of Stochastic Processes for Math</b>	15 EC
------------------------------	--	-------

<i>Stochastic Models</i>	5 EC
<i>Stochastic Models Project</i>	1,5 EC
<i>Markov Chains</i>	2,5 EC
<i>Stochastic Simulation Project</i>	4 EC
<i>Multidisciplinary Project</i>	2 EC
Coordinator: W.R.W.Scheinhardt	

### Third Year

<b>First Semester</b>	<b>Minor Profile</b>	30 EC
<a href="http://www.utwente.nl/onderwijs/keuzeruimte/minor/">http://www.utwente.nl/onderwijs/keuzeruimte/minor/</a>		

<b>Module 11</b> 201500379	<b>Bachelor's Assignment</b>	15 EC
-------------------------------	------------------------------	-------

*Two of the following 4 components must be included in the student's curriculum:*

- *Graph Theory (5 EC)*
- *Introduction to PDE (5 EC)*
- *Random Signals and Filtering (5 EC)*
- *Mathematical Optimization (5 EC)*

*Reflection on Mathematical research I (5 EC)*

*(includes the beginning of Bachelor assignment)*

Coordinator: J. Timmer

<b>Module 12</b> 201500380	<b>Finalising Thesis</b>	15 EC
-------------------------------	--------------------------	-------

<i>Complex Function Theory</i>	3 EC
<i>Reflection on Mathematical research II</i>	2 EC
<i>Bachelor Thesis</i>	10 EC

Coordinator: J. Timmer