

Double Programme Applied Mathematics and Applied Physics 2018 -2019

First academic year (81 EC)

Quartile 1 (22 EC)	Applied Mathematics components		Applied Physics components	
	<i>Linear Structures I</i>	6 EC	<i>Dynamics & Relativity</i>	5 EC
	<i>Prooflab I</i>	1 EC	<i>Calculus I</i>	4 EC
			<i>Experimentation I</i>	1,5 EC
			<i>Programming & data processing I</i>	2 EC
			<i>Project</i>	2,5 EC
Quartile 2 (20 EC)	Applied Mathematics components		Applied Physics components	
	<i>Calculus II</i>	4 EC	<i>Thermodynamics</i>	4 EC
	<i>Linear Structures II</i>	3 EC	<i>Programming & data processing II</i>	1 EC
	<i>Analysis</i>	3 EC		
	<i>Linear Optimization</i>	3 EC		
	<i>Prooflab II</i>	2 EC		
Quartile 3 (19 EC)	Applied Mathematics components		Applied Physics components	
	<i>Prooflab III</i>	1 EC	<i>Electromagnetism</i>	5 EC
	<i>Presentation skills</i>	3 EC	<i>Vector Calculus</i>	2 EC
			<i>Instrumentation</i>	4 EC
			<i>Project</i>	3 EC
			<i>Analytical programming</i>	1 EC
Quartile 4 (20 EC)	Applied Mathematics components		Applied Physics components	
	<i>Probability Theory</i>	5 EC	<i>Quantum Matter</i>	5 EC
	<i>Signals & Systems</i>	5 EC		
	<i>Project</i>	5 EC		

Second academic year (81,5 EC)

Quartile 5 (20,5)	Applied Mathematics components		Applied Physics components	
	<i>Statistics</i>	6 EC	<i>Models</i>	4,5 EC
	<i>Analysis II</i>	5 EC	<i>Project</i>	3 EC
	<i>Presentation Skills</i>	2 EC		

Quartile 6 (21 EC)	Applied Mathematics components		Applied Physics components	
	Differential Equations & Numerical Methods	4,5 EC	Quantum Mechanics	6 EC
	Systems Theory & Numerical Methods	4,5 EC		
	Numerical Methods practical	2,25 EC		
	Project	3,75 EC		

Quartile 7 (21 EC)	Applied Mathematics components		Applied Physics components	
	Discrete Mathematics & Algebra	6 EC	Solid State Physics	7 EC
			Statistical Physics	6 EC
			PDE	2 EC

Quartile 8 (19 EC)	Applied Mathematics components		Applied Physics components	
	Markov Chains	4 EC	Physics of Fluids	7 EC
			Electrodynamics	6 EC
			Num. Meth. for PVE	2 EC

Third academic year (67 EC)

Quartile 9 (15 EC)	Minor Profile			
	http://www.utwente.nl/en/education/electives/minor			

Quartile 10 (17 EC)	Applied Mathematics components		Applied Physics components	
	Electives selection	10 EC	Optics (7 EC)	7 EC

Quartile 11 (20 EC)	Bachelor Assignment			
	Applied Mathematics components		Applied Physics components	
	10 EC of Electives:		Heat & Mass Transfer	5 EC
	Graph Theory	5 EC	Physical Materials Science	5 EC
	Introduction to PDE	5 EC	Technical Optics	5 EC
	Random Signals & Filtering	5 EC	Computational Physics 1	2,5 EC
	Mathematical Optimization	5 EC	Computational Physics 2	2,5 EC
	Reflection on mathematical research I	5 EC	Intro. Instrumentation Comp	2,5 EC
	Bachelor's Assignment research proposal			

Quartile 12 (20 EC)	Thesis			
	AM & AP			
	Complex Function Theory	3 EC		
	Reflection on mathematical research II	2 EC		
	Bachelor Assignment	15 EC		