

# Mathematics, Bachelor's Programme

180 credits

Matematik, kandidatprogram

6KMAT

Valid from: 2016 Autumn semester

**Determined by**

Board of Studies for Electrical  
Engineering, Physics and Mathematics

**Date determined**

2016-01-19

## Entry requirements

**Degree in Swedish**  
Filosofie kandidat, 180 hp

## Curriculum

### Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TANA81	Mathematics Project	4*	G1X	4	C
TATA42	Calculus in One Variable 2	6	G1X	1	C
TATA73	Theory of Calculus, second course	4*	G1X	3	C
TDDC74	Programming: Abstraction and Modelling	8*	G1X	2	C
TATA40	Perspectives on Mathematics	1*	G1X	-	V
TGTU35	Introduction to University Studies	2*	G1X	-	V
<b>Period 2</b>					
TANA81	Mathematics Project	4*	G1X	3	C
TATA43	Calculus in Several Variables	8	G1X	2	C
TATA73	Theory of Calculus, second course	4*	G1X	4	C
TDDC74	Programming: Abstraction and Modelling	8*	G1X	1	C
TATA40	Perspectives on Mathematics	1*	G1X	-	V
TGTU35	Introduction to University Studies	2*	G1X	-	V

#### *Specialisation: Additional courses*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIT04	The Language of Mathematics	4*	G1X	3	E
<b>Period 2</b>					
TSIT04	The Language of Mathematics	4*	G1X	3	E

## Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TANA22	Scientific Computing	8	G1X	3	C
TATA44	Vector Analysis	4	G1X	1	C
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TSTE05	Electronics and Measurement Technology	8*	G1X	2	E
<b>Period 2</b>					
TAMS15	Mathematical Statistics, first course	6	G1X	3	C
TATA45	Complex Analysis	6	G2X	1	C
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA71	Ordinary Differential Equations and Dynamical Systems	6	G2X	3	E
TEAE01	Industrial Economics, Basic Course	6	G1X	2	E
TSTE05	Electronics and Measurement Technology	8*	G1X	3	E

### *Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TSTE05	Electronics and Measurement Technology	8*	G1X	2	E
<b>Period 2</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA71	Ordinary Differential Equations and Dynamical Systems	6	G2X	3	E
TSTE05	Electronics and Measurement Technology	8*	G1X	3	E

*Specialisation: Computer Science*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
<b>Period 2</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA71	Ordinary Differential Equations and Dynamical Systems	6	G2X	3	E

*Specialisation: Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
<b>Period 2</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA71	Ordinary Differential Equations and Dynamical Systems	6	G2X	3	E

*Specialisation: Modelling and Optimization in Economics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
<b>Period 2</b>					
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA71	Ordinary Differential Equations and Dynamical Systems	6	G2X	3	E
TEAE01	Industrial Economics, Basic Course	6	G1X	2	E

## Semester 4 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAMS65	Mathematical Statistics, second course	6*	G2X	4	C
TAOP07	Introduction to Optimization	6	G1X	3	C
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E
TATA64	Graph Theory	6*	A1X	2	E
THEN18	English	6*	G1N	1	E
<b>Period 2</b>					
TAMS65	Mathematical Statistics, second course	6*	G2X	2	C
TAOP24	Optimization, Advanced Course	6	G2X	1	C
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E
TATA64	Graph Theory	6*	A1X	2	E
THEN18	English	6*	G1N	3	E
TPPE24	Economic Analysis: Decision- and Financial Methodology	6	G2X	3	E
TPTE06	Industrial Placement	6	G1X	-	E

### *Specialisation: Additional courses*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TATA81	History of Mathematics	4	G1X	2	E

### *Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E
<b>Period 2</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E

*Specialisation: Computer Science*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E
<b>Period 2</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E

*Specialisation: Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E
<b>Period 2</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6*	G2X	-	E

*Specialisation: Modelling and Optimization in Economics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
<b>Period 2</b>					
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TPPE24	Economic Analysis: Decision- and Financial Methodology	6	G2X	3	E

## Semester 5 (Autumn 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA49	Geometry with Applications	6*	G1X	4	C
TATA77	Fourier Analysis	6	G2X	1	C
TDDC76	Programming and Data Structures	8*	G2X	2	C
TGTU56	Communication	2*	G2X	4	C
TAMS46	Probability Theory, Second Course	6	A1X	3	E
TATA55	Abstract Algebra	6*	G2X	3	E
TATA74	Differential Geometry	6*	G2X	3	E
TDDC17	Artificial Intelligence	6	G2X	3	E
TPPE13	Production and Operations Management	6	G2X	1	E
TPPE17	Corporate Finance	6	G2X	4	E
<b>Period 2</b>					
TATA49	Geometry with Applications	6*	G1X	4	C
TDDC76	Programming and Data Structures	8*	G2X	2	C
TGTU56	Communication	2*	G2X	4	C
TAMS17	Statistical Theory, advanced course	6	A1X	1	E
TAOP18	Supply Chain Optimization	6	A1X	1	E
TATA55	Abstract Algebra	6*	G2X	3	E
TATA74	Differential Geometry	6*	G2X	3	E
TDDD72	Logic	6	G1X	2	E
TEIO04	Project Management	6	G2X	2	E
TSDT18	Signals and Systems	6	G2X	3	E
TSIT02	Computer Security	6	G2X	2	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E



*Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA55	Abstract Algebra	6*	G2X	3	E
<b>Period 2</b>					
TATA55	Abstract Algebra	6*	G2X	3	E
TSDT18	Signals and Systems	6	G2X	3	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E

*Specialisation: Computer Science*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA55	Abstract Algebra	6*	G2X	3	E
TDDC17	Artificial Intelligence	6	G2X	3	E
<b>Period 2</b>					
TATA55	Abstract Algebra	6*	G2X	3	E
TSIT02	Computer Security	6	G2X	2	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E

*Specialisation: Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA55	Abstract Algebra	6*	G2X	3	E
<b>Period 2</b>					
TATA55	Abstract Algebra	6*	G2X	3	E

*Specialisation: Modelling and Optimization in Economics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE13	Production and Operations Management	6	G2X	1	E
TPPE17	Corporate Finance	6	G2X	4	E
<b>Period 2</b>					
TAOP18	Supply Chain Optimization	6	A1X	1	E

## Semester 6 (Spring 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA27	Partial Differential Equations	6*	A1X	2	E
TATA78	Complex Analysis, second course	6*	A1X	2	E
TEIO94	Entrepreneurship and Idea Development	6*	G2X	4	E
TSIT04	The Language of Mathematics	4*	G1X	3	E
TSRT12	Automatic Control	6	G2X	1	E
<b>Period 2</b>					
TGTU83	Philosophy of Science	6	G1X	4	C
TQXX10	Degree project - Bachelor's Thesis	16	G2X	-	C
TATA27	Partial Differential Equations	6*	A1X	4	E
TATA78	Complex Analysis, second course	6*	A1X	3	E
TDDD12	Database Technology	6	G2X	4	E
TEIO94	Entrepreneurship and Idea Development	6*	G2X	4	E
TSIT04	The Language of Mathematics	4*	G1X	3	E
TSKS10	Signals, Information and Communication	4	G2X	3	E

### *Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSRT12	Automatic Control	6	G2X	1	E

### *Specialisation: Computer Science*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TDDD12	Database Technology	6	G2X	4	E

ECV = Elective / Compulsory / Voluntary

\*The course is divided into several semesters and/or periods