

Mathematical Statistics

Course Code	Credits	Cycle	Programme	Language		Course Name	Footnote	Links			
				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4
EMSE35	4	G2	IEA	-	S	Basic Probability Theory	KS KE U W T	1			
EMSE15	7.5	G2	BME, C, D, E, F, I, Pi	X	E	Markov Processes	KS KE U W T	1			
EMSE30	5	G2	IBYA, IBYI, IBYV	-	S	Mathematical Statistics	KS KE U W T	1			
EMSE70	7.5	G2	K	-	S	Mathematical Statistics	KS KE U W T	1			
EMSE70			BME, N					1			
EMSE70			B					1			
EMSE75	7.5	G2	W	-	S	Mathematical Statistics, Basic Course	KS KE U W T	1			

Course Code	Credits	Cycle	Programme	S.Ex. stud.	Language	Course Name	Footnote	Links	19/20	19/20	19/20	19/20
									sp1	sp2	sp3	sp4
EMSF40	7.5	G2	IDA	-	S	Probability Theory and Discrete Mathematics		KS KE U W T	1			
EMSF10	7.5	G2	BME, C, D, E, F, I, M, MWIR, Pi	X	E	Stationary Stochastic Processes		KS KE U W T	1			
EMSN25	7.5	A	E, I, Pi	X	E	Valuation of Derivative Assets		KS KE U W T	1			
EMSF45	9	G2	I, Pi	-	S	Mathematical Statistics, Basic Course		KS KE U W T	1	2		
EMSF45			E								3	4
EMSN60	7.5	A	E, I, Pi	X	E	Financial Statistics		KS KE U W T		2		
EMSF25	2.5	G2	V	-	S	Mathematical Statistics - Complementary Project	X	KS KE U W T		2		

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				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4	
EMSF25			V				X					4
EMSF20	7.5	G2	E	-	S	Mathematical Statistics, Basic Course		KS KE U W T		2		
EMSF20			D							2		
EMSF50	7.5	G2	L , V	-	S	Mathematical Statistics, Basic Course		KS KE U W T		2		
EMSN45	7.5	A	BME , C , D , E , F , I , Pi	X	E	Mathematical Statistics, Time Series Analysis		KS KE U W T		2		
EMSN20	7.5	A	BME , C , D , E , F , Pi	X	E	Spatial Statistics with Image Analysis		KS KE U W T		2		
EMSF60	7.5	G2	BME , C , Pi , RH	-	E1	Statistical Methods for Safety Analysis		KS KE U W T		2		

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								19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4				
EMSN15	7.5	A	E, I, Pi	X	E	Statistical Modelling of Multivariate Extreme Values	X	KS	KE	U	W	T	2		
EMSN50	7.5	A	BME, D, E, I, Pi	X	E	Monte Carlo and Empirical Methods for Stochastic Inference		KS	KE	U	W	T		3	
EMSF05	7.5	G2	BME, E, I, Pi	X	E	Probability Theory		KS	KE	U	W	T		3	
EMSN35	7.5	A	BME, C, D, E, E, I, Pi	X	E	Stationary and Non-stationary Spectral Analysis	X	KS	KE	U	W	T		3	
EMSF65	7.5	G2	BME, D, E, E, MLIV, MWIR, N, Pi, W	X	E	Design of Experiments		KS	KE	U	W	T			4
EMSN30	7.5	A	BME, D, E, I, L, Pi	X	E	Linear and Logistic Regression	X	KS	KE	U	W	T			4
EMSN40	9	A	I	X	E	Linear and Logistic Regression with Data Gathering	X	KS	KE	U	W	T			4

Course Code	Credits	Cycle		Programme	S.Ex. stud.	Language	Course Name	Footnote	Links			
									19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4
EMSF55	7.5	G2	C , M		-	S	Mathematical Statistics, Basic Course	KS KE U W T				4
EMSN55	7.5	A	D , E , I , Pi		X	E	Statistical Modelling of Extreme Values	KS KE U W T				4

[EMSF25](#) (V) Mathematical Statistics - Complementary Project: *Only one of the courses [EMSF25](#) and [EMSF50](#) may be included in a degree.*

[EMSN15](#) (E, I, Pi) Statistical Modelling of Multivariate Extreme Values: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

[FMSN35](#) (BME, C, D, E, E, I, Pi) Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

[FMSN30](#) (I) Linear and Logistic Regression: *Only one of the courses [FMSN30](#) and [FMSN40](#) may be included in a degree.*

[FMSN40](#) (I) Linear and Logistic Regression with Data Gathering: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2016. The course is also an optional programme course. Only one of the courses [FMSN30](#) and [FMSN40](#) may be included in a degree.*

Mathematics

Course Code	Credits	Cycle	Programme	Language		Course Name	Footnote	Links	19/20	19/20	19/20	19/20
				S.Ex. stud.					sp1	sp2	sp3	sp4
FMAB30	6	G1	B	-	S	Calculus in Several Variables	KS KE U W T	1				
FMAB30			BI, BME, C, D, IDA, IEA, L, N, V, W				X	1				
FMAB30			K					1				
FMAB30			E, I, IBYA, IBYI, IBYV				X			3		
FMAB30			E, M, MD									4
EMAN20	7.5	A	BME, C, D, E, F, L, Pi	X	E1	Image Analysis	KS KE U W T	1				
EMAA60	7.5	G1	C, D, E, I, M, MD, N, Pi, W	-	S	Introduction to Real Analysis	KS KE U W T	1				

Course Code	Credits	Cycle	Programme	Language		Course Name	Footnote	Links			
				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4
EMAA05	15	G1	K	-	S	Calculus in One Variable	KS KE U W T	1	2		
EMAA05			BI, C, D, E, E, I, L, N, Pi, V, W					1	2		
EMAA05			B					1	2		
EMAN80	7.5	A	E, Pi	X	E1	Functional Analysis and Harmonic Analysis	KS KE U W T	1	2		
EMAN70	6	A	BME, C, D, E, E, I, Pi	X	E1	Matrix Theory	KS KE U W T	1	2		
EMAN15	7.5	A	D, E, Pi	X	E	Nonlinear Dynamical Systems	KS KE U W T	1	2		
EMAA50	13.5	G1	IBYI, IBYV, IEA	-	S	Calculus	KS KE U W T	1	2	3	

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				S.Ex. stud.					sp1	sp2	sp3	sp4
EMAA50			IBYA, IDA						1	2	3	
EMAA01	15	G1	M, MD	-	S	Calculus in One Variable		KS KE U W T	1	2	3	
EMAA01			BME						1	2	3	
EMAA30	4.5	G1	Pi	-	S	Mathematical Communication		KS KE U W T	1	2	3	4
FMAB20	6	G1	E, Pi	-	S	Linear Algebra		KS KE U W T	1			
FMAB20			I, M, MD							2		
FMAB20			BI, C, E, L, N, Y				X				3	

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				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4
FMAB20			BME, D								4
EMAF01	7	G2	BME, E, M, N, Pi	-	E1	Mathematics - Analytic Functions		KS KE U W T	1		
EMAF01			BME, C, D, E, I, M				X				3
EMAA25	7.5	G1	BME, C, D, E, F, Pi	X	E1	Discrete Mathematics		KS KE U W T		2	
EMAA25			BME, C, D, E, F, Pi								4
EMAA10	3	G1	Pi	-	S	Mathematical Modelling	X	KS KE U W T		2	
EMAN30	7.5	A	BME, C, D, E, F, Pi	X	E1	Medical Image Analysis		KS KE U W T		2	

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				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4	
EMAA20			B							3		
EMAE35	6	G2	BME, C, D, E, F, Pi	X	E1	Linear and Combinatorial Optimization		KS KE U W T			3	
EMAN65	6	A	D, E, Pi	-	S	Mathematical Structures		KS KE U W T			3	
EMAN55	7.5	A	D, E, F, M, Pi	-	S	Applied Mathematics		KS KE U W T			3	4
EMAN01	7.5	A	E, F, Pi	X	E1	Biomathematics	X	KS KE U W T			3	4
EMAB35	7.5	G1	Pi	-	S	Calculus in Several Variables		KS KE U W T			3	4
EMAN25	7.5	A	D, E, F, Pi	X	E1	Calculus of Variations		KS KE U W T			3	4

Course Code	Credits	Cycle	Programme	Language		Course Name	Footnote	Links								
				S.Ex. stud.				19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4					
EMAN90	7.5	A	D , E , Pi	X	E1	Advanced Course in a Selected Area of Mathematics		KS	KE	U	W	T				4
EMAN50	3	A	Pi	-	E	International Project Course - Mathematical Modelling	X	KS	KE	U	W	T				4
EMAN45	7.5	A	BME , D , E , E , I , Pi	-	E	Machine Learning		KS	KE	U	W	T				4
EMAF25	3	G2	Pi	-	S	Mathematical Modelling with Statistical Applications, Project		KS	KE	U	W	T				4
EMAA55	4.5	G1	IBYA , IBYI , IBYV , IDA , IEA	-	S	Mathematics, Linear Algebra		KS	KE	U	W	T				4

[EMAB30](#) ([IBYA](#), [IBYI](#), [IBYV](#)) Calculus in Several Variables: *The course will be held in Lund*

[EMAB30](#) ([IDA](#), [IEA](#)) Calculus in Several Variables: *The course will be held in Lund.*

[EMAB20](#) ([V](#)) Linear Algebra: *The course is an admission requirement for [FMNF15](#) Scientific Computing.*

[EMAF01](#) ([D](#)) Mathematics - Analytic Functions: *Can together with [EMAF05](#) replace [EMAF10](#). Can also be taken as an elective course in the 4th or 5th year.*

[EMAA10](#) ([Pi](#)) Mathematical Modelling: *All the projects must be approved during the current academic year. Thus one may not save results on single projects till a later year.*

[EMAN60](#) ([I](#)) Optimization: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2015. The course is also an optional programme course.*

[EMAF05](#) ([C](#)) Mathematics - Systems and Transforms: *Only one of the courses [EMAF05](#) and [EMAF10](#) may be included in a degree.*

[EMAF05](#) ([D](#)) Mathematics - Systems and Transforms: *Can together with [EMAF01](#) replace [EMAF10](#). Only one of the courses [EMAF05](#) and [EMAF10](#) may be included in a degree.*

[EMAF10](#) ([C](#)) Applied Mathematics - Linear systems: *Only one of the courses [EMAF05](#) and [EMAF10](#) may be included in a degree.*

[FMAF10](#) (D) Applied Mathematics - Linear systems: *Can be replaced by [FMAF01](#) and [FMAF05](#) together. Only one of the courses [FMAF10](#) and [FMAF05](#) may be included in a degree.*

[EMAN01](#) (E, E, Pi) Biomathematics: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

[EMAN50](#) (Pi) International Project Course - Mathematical Modelling: *Limited number of participants. Specific application procedure. The course is given in August.*

Numerical Analysis

Course Code	Credits	Cycle	Programme	S.Ex. stud.	Language	Course Name	Footnote	Links	19/20	19/20	19/20	19/20
									sp1	sp2	sp3	sp4
EMNN25	7.5	A	D, E, E, Pi	X	E1	Advanced Course in Numerical Algorithms with Python/SciPy		KS KE U W T	1			
EMNN01	7.5	A	BME, E, Pi	X	E	Numerical Linear Algebra		KS KE U W T	1			
EMNN10	8	A	BME, E, I, Pi	X	E1	Numerical Methods for Differential Equations		KS KE U W T		2		
EMNF15	6	G2	V	-	S	Scientific Computing		KS KE U W T		2	3	
EMNF05	6	G2	C, D	X	E1	Numerical Analysis		KS KE U W T			3	
EMNN05	7.5	A	D, E, Pi	X	E1	Simulation Tools		KS KE U W T			3	
EMNN30	7.5	A	E, Pi	X	E	Iterative Solution of Large Scale Systems in Scientific Computing	X	KS KE U W T				4

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								19/20 sp1	19/20 sp2	19/20 sp3	19/20 sp4	
FMNF10	6	G2	BME, E, I, M, N	X	E1	Numerical Analysis	X	KS KE U W T				4

[FMNN30](#) (E, Pi) Iterative Solution of Large Scale Systems in Scientific Computing: *The course is offered every other academic year and will be given in 2019/20, 2021/22.*

[FMNF10](#) (I) Numerical Analysis: *Compulsory course in the elective block 'Mathematical Modelling' for students admitted autumn 2015. The course is also an optional programme course.*

Bachelor's Projects of the Department

The list contains the bachelor's projects which are given by the department and which programme each bachelor's project is included in.

Links

Course Code	Credits	Programme	Course Name	Links
FMSL01	15	C , D , E , F , I , Pi	Bachelor Project in Mathematical Statistics	KS KE U W
FMAL01	15	C , D , E , F , Pi	Bachelor Project in Mathematics	KS KE U
FMNL01	15	D , E , F , Pi	Bachelor Project in Numerical Analysis	KS KE U W

Degree Projects of the Department

The list contains the degree projects which are given by the department and which programme each degree project is included in.

Links

Course Code	Credits	Programme	Course Name	Links
FMSM01	30	BME , C , D , E , F , I , Pi , RH	Degree Project in Mathematical Statistics for Engineers	KS KE U W
FMAM05	30	BME , C , D , E , F , I , M , Pi	Degree Project in Mathematics for Engineers	KS KE U
FMNM01	30	D , E , F , I , Pi	Degree Project in Numerical Analysis	KS KE U W