

Subject	Number	Code	Title	First Admit Term			Previous Code	First Admit Term		
				After 2013-2014	After 2013-2014	After 2013-2014		Before 2013-2014	Before 2013-2014	Before 2013-2014
				ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
ACC	201	ACC201	Introduction to Financial Accounting and Reporting	6,0	0,0	0,0	-	6	0,0	0,0
ACC	301	ACC301	Managerial Accounting	6,0	0,0	0,0	-	6	0,0	0,0
BIO	301	BIO301	Introduction to Molecular Biology	7,0	0,0	7,0	-	8	0,0	8,0
BIO	302	BIO302	Techniques in Molecular Bio.	0,0	0,0	0,0	-	0	0,0	0,0
BIO	303	BIO303	Genetics	7,0	2,0	5,0	-	6	1,7	4,3
BIO	304	BIO304	Biological Function and Structure	6,0	1,0	5,0	-	6	1,0	5,0
BIO	306	BIO306	Microbiology	7,0	0,0	7,0	-	8	0,0	8,0
BIO	308	BIO308	Plant Physiology	7,0	0,0	7,0	-	6	0,0	6,0
BIO	310	BIO310	Introduction to Bioinformatics	6,0	0,0	6,0	-	6	0,0	6,0
BIO	321	BIO321	Biochemistry I	7,0	0,0	7,0	-	8	0,0	8,0
BIO	322	BIO322	Biochemistry II	5,0	0,0	5,0	-	6	0,0	6,0
BIO	330	BIO330	Environmental Plant Biology	5,0	0,0	5,0	-	6	0,0	6,0
BIO	332	BIO332	Cell Biology	7,0	0,0	7,0	-	6	0,0	6,0
BIO	335	BIO335	Analytical Techniques	6,0	1,0	5,0	-	6	1,0	5,0
BIO	363	BIO363	Ecology	6,0	0,0	6,0	-	6	0,0	6,0
BIO	366	BIO366	Biophysics: Molecules and Sys.	0,0	0,0	0,0	-	0	0,0	0,0
BIO	370	BIO370	Mammalian Cell Culture	7,0	0,0	7,0	-	6	0,0	6,0
BIO	401	BIO401	General Biotechnology	0,0	0,0	0,0	-	0	0,0	0,0
BIO	403	BIO403	Plant Pathology	5,0	0,0	5,0	-	6	0,0	6,0
BIO	404	BIO404	Plant Biotechnology	5,0	2,0	3,0	-	6	2,4	3,6
BIO	406	BIO406	Protein Engineering	6,0	3,0	3,0	-	8	4,0	4,0
BIO	407	BIO407	Multicellular Organization	5,0	0,0	5,0	-	6	0,0	6,0
BIO	409	BIO409	Mod&Simul.of Biomolecular Proc	5,0	2,5	2,5	-	6	3,0	3,0
BIO	410	BIO410	Evolution and Ecology	6,0	0,0	6,0	-	6	0,0	6,0
BIO	415	BIO415	Plant Nutrition	5,0	0,0	5,0	-	6	0,0	6,0
BIO	432	BIO432	Analytical Techniques	0,0	0,0	0,0	-	0	0,0	0,0
BIO	445	BIO445	Plant Tissue Culture Techniques	7,0	3,0	4,0	-	6	2,6	3,4
BIO	447	BIO447	Plant Breeding	5,0	0,0	5,0	-	6	0,0	6,0
BIO	452	BIO452	Immunology	6,0	0,0	6,0	-	6	0,0	6,0
BIO	466	BIO466	Biophysics: Molecules and Systems	6,0	1,0	5,0	-	6	1,0	5,0
BIO	467	BIO467	Signal Transduction	6,0	1,0	5,0	-	6	1,0	5,0
BIO	480	BIO480	Spc.Top.in Bio.Sci.&Bioeng.	5,0	0,0	5,0	-	6	0,0	6,0
BIO	481	BIO481	Spc.Top.in Bio.Sci.&Bioeng.II	5,0	2,5	2,5	-	6	3,0	3,0
CHEM	202	CHEM202	Chemical Kinetics	7,0	2,0	5,0	-	7	2,0	5,0
CHEM	301	CHEM301	Inorganic Chemistry	6,0	1,0	5,0	-	6	1,0	5,0
CHEM	302	CHEM302	Analytical Chemistry	7,0	2,0	5,0	-	8	2,3	5,7
CHEM	369	CHEM369	Chem. of Transformable Mtrls.	6,0	3,0	3,0	-	6	3,0	3,0
CHEM	405	CHEM405	Electrochemistry	6,0	2,0	4,0	-	6	2,0	4,0
CS	201	CS201	Introduction to Computing	6,0	6,0	0,0	-	6	6,0	0,0
CS	202	CS202	Data Structures	6,0	6,0	0,0	-	6	6,0	0,0
CS	204	CS204	Advanced Programming	6,0	6,0	0,0	-	6	6,0	0,0
CS	210	CS210	Introduction to Data Science	6,0	4,0	2,0	-	6	4,0	2,0
CS	300	CS300	Data Structures	6,0	5,0	1,0	-	6	5,0	1,0
CS	301	CS301	Algorithms	6,0	5,0	1,0	-	6	5,0	1,0
CS	302	CS302	Formal Languages and Automata Theory	6,0	6,0	0,0	-	6	6,0	0,0
CS	303	CS303	Logic and Digital System Design	7,0	6,0	1,0	-	8	6,9	1,1
CS	305	CS305	Programming Languages	6,0	6,0	0,0	-	6	6,0	0,0
CS	306	CS306	Database Systems	6,0	6,0	0,0	-	6	6,0	0,0
CS	307	CS307	Operating Systems	6,0	6,0	0,0	-	6	6,0	0,0
CS	308	CS308	Software Engineering	7,0	7,0	0,0	-	8	8,0	0,0
CS	310	CS310	Mobile Computing	6,0	6,0	0,0	-	6	6,0	0,0
CS	400	CS400	Logic in Computer Science	6,0	1,0	5,0	-	6	1,0	5,0
CS	401	CS401	Computer Architectures	6,0	6,0	0,0	-	8	8,0	0,0
CS	402	CS402	Compiler Design	6,0	6,0	0,0	-	6	6,0	0,0
CS	403	CS403	Distributed Systems	6,0	6,0	0,0	-	6	6,0	0,0
CS	404	CS404	Artificial Intelligence	6,0	4,0	2,0	-	6	4,0	2,0
CS	405	CS405	Computer Graphics	6,0	4,0	2,0	-	6	4,0	2,0
CS	406	CS406	Parallel Computing	6,0	6,0	0,0	-	6	6,0	0,0
CS	407	CS407	Theory of Computation	6,0	6,0	0,0	-	6	6,0	0,0
CS	408	CS408	Computer Networks	6,0	6,0	0,0	-	6	6,0	0,0
CS	409	CS409	Introduction to Scientific Computing	6,0	4,0	2,0	-	6	4,0	2,0
CS	411	CS411	Cryptography	6,0	4,0	2,0	-	10	6,7	3,3
CS	412	CS412	Machine Learning	6,0	3,0	3,0	-	10	5,0	5,0
CS	432	CS432	Computer and Network Security	6,0	6,0	0,0	-	6	6,0	0,0
CS	439	CS439	Software Verification and Validation	6,0	5,0	1,0	-	6	5,0	1,0
CS	450	CS450	Arts and Computing	6,0	6,0	0,0	-	6	6,0	0,0
CS	48000	CS48000	Special Topics in CS: Software Design Patterns	6,0	6,0	0,0	-	6	6,0	0,0
CS	512	CS512	Machine Learning	10,0	3,0	3,0	-	10	3,0	3,0
ECON	201	ECON201	Games and Strategies	6,0	3,0	0,0	-	6	3,0	0,0
ECON	202	ECON202	Macroeconomics	6,0	0,0	0,0	-	6	0,0	0,0
ECON	204	ECON204	Microeconomics	6,0	3,0	0,0	-	6	3,0	0,0
ECON	301	ECON301	Econometrics	7,0	3,0	2,0	-	7	3,0	2,0
ECON	310	ECON310	Game Theory	6,0	3,0	0,0	-	6	3,0	0,0
ECON	345	ECON345	International Finance	6,0	0,0	0,0	-	6	0,0	0,0
ECON	360	ECON360	Advanced Macroeconomics	7,0	0,0	0,0	-	7	0,0	0,0
ECON	370	ECON370	Advanced Microeconomics	7,0	3,0	0,0	-	6	2,6	0,0
ECON	481	ECON481	Microeconomics I	7,0	3,0	0,0	-	8	3,4	0,0
ECON	482	ECON482	Microeconomics II	7,0	3,0	0,0	-	8	3,4	0,0
ECON	483	ECON483	Advanced Macroeconomic Theory I	7,0	2,0	0,0	-	8	2,3	0,0
ECON	484	ECON484	Advanced Macroeconomic Theory II	7,0	2,0	0,0	-	8	2,3	0,0
EE	200	EE200	Electronic Circuit Implementations	2,0	2,0	0,0	-	2	2,0	0,0
EE	202	EE202	Electronic Circuits II	6,0	6,0	0,0	EL202	8	8,0	0,0
EE	301	EE301	Electromagnetics II	6,0	6,0	0,0	TE305	6	6,0	0,0

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				ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
EE	302	EE302	Digital Integrated Circuits	6,0	6,0	0,0	EL302	8	8,0	0,0
EE	303	EE303	Analog Integrated Circuits	6,0	6,0	0,0	EL303	6	6,0	0,0
EE	306	EE306	Intr.to Radio Freq&Microw Des.	6,0	6,0	0,0	EL306	6	6,0	0,0
EE	307	EE307	Semiconductor Physics and Devices	6,0	4,0	2,0	EL204	6	4,0	2,0
EE	308	EE308	Microcomputer Based Sys Design	7,0	7,0	0,0	EL308	8	8,0	0,0
EE	310	EE310	HW Description Languages	6,0	6,0	0,0	EL310	8	8,0	0,0
EE	311	EE311	Introduction to Signal Processing and Information Systems	6,0	5,0	1,0	TE301	6	5,0	1,0
EE	312	EE312	Discrete Signals & Systems	6,0	5,0	1,0	TE302	6	5,0	1,0
EE	313	EE313	Introduction to Communication Systems	6,0	5,0	1,0	TE303	6	5,0	1,0
EE	314	EE314	Digital Communications	6,0	4,0	2,0	TE304	6	4,0	2,0
EE	401	EE401	VLSI Systems Design I	6,0	6,0	0,0	EL401	8	8,0	0,0
EE	402	EE402	VLSI Systems Design II	6,0	6,0	0,0	EL402	6	6,0	0,0
EE	403	EE403	Optoelectronics	6,0	4,0	2,0	EL305	6	4,0	2,0
EE	404	EE404	Int. to Microelectromech. Sys.	6,0	6,0	0,0	EL404	6	6,0	0,0
EE	405	EE405	Communication Circuits Design	6,0	6,0	0,0	EL405	6	6,0	0,0
EE	406	EE406	Anten.&Propag.for Wireless Com	6,0	6,0	0,0	TE402	8	8,0	0,0
EE	407	EE407	Microelectronic Fabrication	6,0	6,0	0,0	EL407	6	6,0	0,0
EE	408	EE408	Modeling of Semicond. Devices	6,0	4,0	2,0	EL304	6	4,0	2,0
EE	409	EE409	Microwaves	6,0	6,0	0,0	TE401	6	6,0	0,0
EE	410	EE410	Information and Coding Theory	6,0	5,0	1,0	TE410	6	5,0	1,0
EE	411	EE411	RF Integrated Circuits	6,0	6,0	0,0		6	6,0	0,0
EE	413	EE413	Wireless Communications	6,0	4,0	2,0	TE412	6	4,0	2,0
EE	414	EE414	Multimedia Communication	6,0	6,0	0,0	TE404	6	6,0	0,0
EE	415	EE415	Digital Speech&Audio Process.	6,0	6,0	0,0	TE405	6	6,0	0,0
EE	417	EE417	Computer Vision	6,0	5,0	1,0	TE407	8	6,7	1,3
EE	419	EE419	Signal Processing Design and Implementation	6,0	4,0	2,0	TE409	8	5,3	2,7
EE	444	EE444	Optics	6,0	5,0	1,0	EL444	6	5,0	1,0
EE	473	EE473	Biomedical Instrumentation	6,0	4,0	2,0	EL473	6	4,0	2,0
EE	48001	EE48001	Special Topics in EE: Nanoscale Integrated Circuit Design	6,0	6,0	0,0		6	6,0	0,0
EE	48002	EE48002	Special Topics in EE: Sensor Networks	6,0	6,0	0,0		6	6,0	0,0
EE	48004	EE48004	Special Topics in EE: Power Systems Analysis	6,0	6,0	0,0		6	6,0	0,0
EL	202	EL202	Electronic Circuits II	7,0	7,0	0,0	-	8	8,0	0,0
EL	204	EL204	Semiconductor Physics and Devices	6,0	4,0	2,0	-	6	4,0	2,0
EL	302	EL302	Digital Integrated Circuits	6,0	6,0	0,0	-	8	8,0	0,0
EL	303	EL303	Analog Integrated Circuits	6,0	6,0	0,0	-	6	6,0	0,0
EL	304	EL304	Modeling of Semiconductor Devices	6,0	4,0	2,0	-	6	4,0	2,0
EL	305	EL305	Optoelectronics	6,0	4,0	2,0	-	6	4,0	2,0
EL	306	EL306	Introduction to Radio Frequency and Microwave Design	6,0	6,0	0,0	-	6	6,0	0,0
EL	308	EL308	Microcomputer Based System Design	7,0	7,0	0,0	-	8	8,0	0,0
EL	310	EL310	Hardware Description Languages	6,0	6,0	0,0	-	8	8,0	0,0
EL	401	EL401	Very Large Scale Integrated System Design I	6,0	6,0	0,0	-	8	8,0	0,0
EL	402	EL402	Very Large Scale Integrated System Design II	6,0	6,0	0,0	-	6	6,0	0,0
EL	404	EL404	Introduction to Microelectromechanical Systems	6,0	6,0	0,0	-	6	6,0	0,0
EL	405	EL405	Communication Circuit Design	6,0	6,0	0,0	-	6	6,0	0,0
EL	407	EL407	Microelectronic Fabrication	6,0	6,0	0,0	-	6	6,0	0,0
EL	444	EL444	Optics	6,0	5,0	1,0	-	6	5,0	1,0
EL	473	EL473	Biomedical Instrumentation	6,0	4,0	2,0	-	6	4,0	2,0
EL	480	EL480	Special Topics in Microelectronics	6,0	6,0	0,0	-	6	6,0	0,0
ENS	201	ENS201	Electromagnetics I	6,0	4,0	2,0	-	6	4,0	2,0
ENS	202	ENS202	Thermodynamics	6,0	3,0	3,0	-	6	3,0	3,0
ENS	203	ENS203	Electronic Circuits I	6,0	6,0	0,0	-	8	8,0	0,0
ENS	204	ENS204	Mechanics	6,0	5,0	1,0	-	6	5,0	1,0
ENS	205	ENS205	Introduction to Materials Science I	6,0	4,0	2,0	-	6	4,0	2,0
ENS	206	ENS206	Systems Modeling and Control	6,0	2,0	4,0	-	6	2,0	4,0
ENS	207	ENS207	Introduction to Energy Systems	6,0	4,0	2,0	-	6	4,0	2,0
ENS	208	ENS208	Introduction to Manufacturing Systems	6,0	6,0	0,0	-	6	6,0	0,0
ENS	209	ENS209	Introduction to Computer Aided Drafting and Solid Modeling	6,0	5,0	1,0	-	6	5,0	1,0
ENS	210	ENS210	Computational Biology	6,0	0,0	6,0	-	6	0,0	6,0
ENS	211	ENS211	Signals	6,0	3,0	3,0	-	6	3,0	3,0
ENS	214	ENS214	Dynamics	6,0	4,0	2,0	-	6	4,0	2,0
ENS	222	ENS222	Intr.to:Bio.Cir.&Molec.Machin	6,0	2,0	4,0	-	6	2,0	4,0
ENS	301	ENS301	Energy Sys&Environment	6,0	3,0	3,0	-	6	3,0	3,0
ENS	302	ENS302	Technology and Society	5,0	5,0	0,0	-	6	6,0	0,0
ENS	303	ENS303	Introduction to Space Technology	6,0	4,0	2,0	-	6	4,0	2,0
ENS	309	ENS309	Computer Aided Engineering	6,0	6,0	0,0	-	6	6,0	0,0
ENS	315	ENS315	Energy	5,0	2,0	3,0	-	6	2,4	3,6
ENS	413	ENS413	Experimental Methods in Nanoscience I	6,0	0,0	6,0	-	6	0,0	6,0
ENS	414	ENS414	Experimental Methods in Nanoscience II	6,0	0,0	6,0	-	6	0,0	6,0
ENS	416	ENS416	Intr.to Scanning Probe Microsc	6,0	3,0	3,0	-	6	3,0	3,0
ENS	48000	ENS48000	Special Topics in FENS: Energy, Supply Chain, Economics ang Geopolitics	6,0	6,0	0,0		6	6,0	0,0
ENS	48001	ENS48001	Special Topics in FENS: Materials Selection in Product Design	6,0	6,0	0,0		6	6,0	0,0
ENS	48002	ENS48002	Special Topics in FENS: Analysis of Social Networks	6,0	6,0	0,0		6	6,0	0,0
ENS	4803	ENS4803	Special Topics in FENS: Nanobiotechnology	6,0	6,0	0,0		6	6,0	0,0
ENS	491	ENS491	Graduation Project (Design)	2,0	2,0	0,0	-	2	2,0	0,0
ENS	492	ENS492	Graduation Project(Implement.)	5,0	5,0	0,0	-	2	2,0	0,0
FIN	301	FIN301	Financial Management	6,0	3,0	0,0	-	6	3,0	0,0
FIN	401	FIN401	Corporate Finance	6,0	3,0	0,0	-	6	3,0	0,0
FIN	402	FIN402	Investments	6,0	6,0	0,0	-	6	6,0	0,0
FIN	403	FIN403	Derivative Securities	6,0	6,0	0,0	-	6	6,0	0,0
FIN	404	FIN404	Multinational Corporate Finance	6,0	3,0	0,0	-	6	3,0	0,0
FIN	405	FIN405	Corporate Mergers & Acquisitions	6,0	3,0	0,0	-	6	3,0	0,0
IE	301	IE301	Deterministic Models in OR	7,0	5,0	2,0	MS301	8	5,7	2,3
IE	302	IE302	Stochastic Models in OR	2	7,0	5,0	MS302	8	5,7	2,3

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IE	303	IE303	Decision Economics	6,0	6,0	0,0	MS303	6	6,0	0,0
IE	304	IE304	Product. & Serv.Sys Plan&Design	6,0	6,0	0,0	MS304	6	6,0	0,0
IE	305	IE305	Simulation	6,0	5,0	1,0	MS305	6	5,0	1,0
IE	306	IE306	Ergonomics	5,0	5,0	0,0	MS306	6	6,0	0,0
IE	307	IE307	Work Analysis & Design	5,0	5,0	0,0	MS307	6	6,0	0,0
IE	309	IE309	Manufacturing Processes I	6,0	5,0	1,0	MS309	6	5,0	1,0
IE	311	IE311	Operations Research I	6,0	4,0	2,0	-	6	4,0	2,0
IE	312	IE312	Operations Research II	6,0	5,0	1,0	-	6	5,0	1,0
IE	313	IE313	Operations Research III	6,0	4,0	2,0	-	6	4,0	2,0
IE	401	IE401	Produc.&Service Sys.Operations	6,0	6,0	0,0	MS401	6	6,0	0,0
IE	402	IE402	Integrated Manufacturing Sys.	7,0	7,0	0,0	MS402	8	8,0	0,0
IE	403	IE403	Quality Planning & Control	6,0	6,0	0,0	MS403	6	6,0	0,0
IE	405	IE405	Decision Analysis	6,0	6,0	0,0	MS405	6	6,0	0,0
IE	407	IE407	Investment Decision Making	6,0	6,0	0,0	MS407	6	6,0	0,0
IE	408	IE408	Reliability&Maintenance Analy.	6,0	6,0	0,0	MS408	6	6,0	0,0
IE	409	IE409	Project Scheduling & Managemen	6,0	6,0	0,0	MS409	6	6,0	0,0
IE	411	IE411	Modeling&Analysis of Large Sys	6,0	6,0	0,0	MS411	6	6,0	0,0
IE	412	IE412	Financial Engineering	6,0	6,0	0,0	MS412	6	6,0	0,0
IE	413	IE413	Informations Systems	5,0	5,0	0,0	MS413	6	6,0	0,0
IE	414	IE414	Manufacturing Strategies	6,0	6,0	0,0	MS414	6	6,0	0,0
IE	415	IE415	Decision Support Systems	6,0	6,0	0,0	MS415	6	6,0	0,0
IE	416	IE416	Additive Manufacturing	7,0	7,0	0,0	-	6	6,0	0,0
IE	417	IE417	Facilit.&Material Handling Des	6,0	6,0	0,0	MS417	6	6,0	0,0
IE	418	IE418	Manufacturing Processes II	6,0	6,0	0,0	MS418	6	6,0	0,0
IE	419	IE419	Total Quality Management	5,0	5,0	0,0	MS419	6	6,0	0,0
IE	420	IE420	Storage & Distribution Systems	6,0	6,0	0,0	MS420	6	6,0	0,0
IE	430	IE430	Logistics Sys&Plan. and Design	6,0	6,0	0,0	MS430	6	6,0	0,0
IE	432	IE432	Stochastic Models in Finance	6,0	4,0	2,0	MS432	6	4,0	2,0
IE	451	IE451	Data Visualization&Analysis	6,0	6,0	0,0	MS451	6	6,0	0,0
IE	454	IE454	Supply Chain Analysis	6,0	6,0	0,0	MS454	6	6,0	0,0
IE	471	IE471	Supply Chain Practice	5,0	5,0	0,0	-	5	5,0	0,0
IE	472	IE472	Strategic Decision Making Practice	5,0	5,0	0,0	-	5	5,0	0,0
IE	480	IE480	Spc.Top.Industrial Eng.	5,0	5,0	0,0	MS480	6	6,0	0,0
IE	481	IE481	Spc.Top.Industrial Eng.II	5,0	5,0	0,0	MS481	6	6,0	0,0
IE	482	IE482	Spc.Top.Industrial Eng.III	5,0	5,0	0,0	MS482	6	6,0	0,0
IE	48001	IE48001	Special Topics in IE: Managing New Product Development	5,0	5,0	0,0	-	5	5,0	0,0
IE	48002	IE48002	Special Topics in IE: Advanced statistics with R	6,0	0,0	6,0	-	6	0,0	6,0
IE	48003	IE48003	Special Topics in IE: Multi-axis Machining	6,0	6,0	0,0	-	6	6,0	0,0
IE	48004	IE48004	Special Topics in IE: Computer-Aided Biomodeling and Fabrication	6,0	6,0	0,0	-	6	6,0	0,0
IE	48005	IE48005	Special Topics in IE: Digital Manufacturing	6,0	6,0	0,0	-	6	6,0	0,0
IF	100	IF100	Computational Approaches to Problem Solving	5,0	5,0	0,0	-	5	5,0	0,0
IF	200	IF200	Fantasy,Reality,Sci.&Society	6,0	0,0	2,0	-	6	0,0	2,0
IF	401	IF401	Energy: Supply Chain, Economics and Geopolitics	6,0	2,0	2,0	-	6	2,0	2,0
IF	333	IF333	Creativity, Innovation and Entrepreneurship	6,0	4,0	0,0	-	6	4,0	0,0
IF	467	IF467	Decision, Psychology and Brain	6,0	3,0	3,0	-	6	3,0	3,0
MAT	204	MAT204	Electrical, Optical and Magnetic Properties of Materials	6,0	2,0	4,0	-	6	2,0	4,0
MAT	206	MAT206	Kinetics of Materials	6,0	5,0	1,0	-	8	2,7	5,3
MAT	302	MAT302	Polymer Synthesis	7,0	2,0	5,0	-	8	2,3	5,7
MAT	304	MAT304	Biopolymers	5,0	2,5	2,5	-	6	3,0	3,0
MAT	305	MAT305	Polymer Engineering I	5,0	4,0	1,0	-	6	4,8	1,2
MAT	306	MAT306	Computational Techniques for Materials Science	6,0	4,0	2,0	-	6	2,4	3,6
MAT	307	MAT307	Composite Materials	7,0	7,0	0,0	-	7	7,0	0,0
MAT	308	MAT308	Phase Equilibria	5,0	4,0	1,0	-	6	4,8	1,2
MAT	309	MAT309	Transport Phenomena in Materials Processing	6,0	6,0	0,0	-	6	6,0	0,0
MAT	310	MAT310	Chemical Processes for New Materials	5,0	4,0	1,0	-	6	4,8	1,2
MAT	312	MAT312	Materials Characterization	7,0	7,0	0,0	-	8	2,3	5,7
MAT	314	MAT314	Mechanical Properties of Materials	5,0	4,0	1,0	-	6	4,8	1,2
MAT	401	MAT401	Surface Chemistry	6,0	2,0	4,0	-	6	2,0	4,0
MAT	402	MAT402	Polymer Engineering II	6,0	5,0	1,0	-	6	4,8	1,2
MAT	403	MAT403	Polymer Processes	5,0	4,0	1,0	-	6	4,8	1,2
MAT	404	MAT404	Polymer Physics	5,0	4,0	1,0	-	6	4,8	1,2
MAT	405	MAT405	Advanced Materials Characterization	7,0	2,0	5,0	-	8	2,3	5,7
MAT	406	MAT406	Introduction to Nanoscience	5,0	5,0	0,0	-	6	6,0	0,0
MAT	408	MAT408	Introduction to Ceramics	5,0	4,0	1,0	-	6	4,8	1,2
MAT	416	MAT416	Biomaterials Science and Biocompatibility	5,0	2,0	3,0	-	6	2,4	3,6
MAT	422	MAT422	Glass Science and Engineering	6,0	5,0	1,0	-	10	5,0	5,0
MAT	423	MAT423	Cement Chemistry and Technology	6,0	6,0	0,0	-	6	6,0	0,0
MAT	480	MAT480	Spc.Top.in Mat.Sci&Eng.	5,0	5,0	0,0	-	6	6,0	0,0
MAT	481	MAT481	Spc.Top.in Mat.Sci&Eng.II	5,0	5,0	0,0	-	6	6,0	0,0
MAT	48000	MAT48000	Special Topics in Materials Science and Nanoengineering: Adhesion Science and Engineering	6,0	6,0	0,0	-	6	6,0	0,0
MATH	101	MATH101	Calculus I	6,0	0,0	6,0	-	5	0,0	5,0
MATH	102	MATH102	Calculus II	6,0	0,0	6,0	-	5	0,0	5,0
MATH	201	MATH201	Linear Algebra	6,0	0,0	6,0	-	6	0,0	6,0
MATH	202	MATH202	Differential Equations	6,0	0,0	6,0	-	6	0,0	6,0
MATH	203	MATH203	Introduction to Probability	6,0	0,0	6,0	-	6	0,0	6,0
MATH	204	MATH204	Discrete Mathematics	6,0	0,0	6,0	-	6	0,0	6,0
MATH	206	MATH206	Vector Calculus	6,0	0,0	6,0	-	6	0,0	6,0
MATH	221	MATH221	History of Mathematics	6,0	0,0	6,0	-	6	0,0	6,0
MATH	301	MATH301	Introduction to Mathematical Analysis	6,0	0,0	6,0	-	6	0,0	6,0
MATH	302	MATH302	Integration	6,0	0,0	6,0	-	6	0,0	6,0
MATH	305	MATH305	Complex Calculus	6,0	0,0	6,0	-	6	0,0	6,0
MATH	306	MATH306	Statistical Modelling	6,0	0,0	6,0	-	6	0,0	6,0

Subject	Number	Code	Title	First Admit Term			Previous Code	First Admit Term		
				After 2013-2014	After 2013-2014	After 2013-2014		Before 2013-2014	Before 2013-2014	Before 2013-2014
				ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
MATH	307	MATH307	Dynamical Systems	6,0	0,0	6,0	-	6	0,0	6,0
MATH	311	MATH311	Introduction to Algebra	6,0	0,0	6,0	-	6	0,0	6,0
MATH	317	MATH317	Elementary Number Theory	6,0	0,0	6,0	-	6	0,0	6,0
MATH	318	MATH318	Introduction to Combinatorics	6,0	0,0	6,0	-	6	0,0	6,0
MATH	322	MATH322	Partial Differential Equations	6,0	0,0	6,0	-	6	0,0	6,0
MATH	401	MATH401	Introduction to Functional Analysis	6,0	0,0	6,0	-	6	0,0	6,0
MATH	402	MATH402	Hilbert Space Techniques	6,0	0,0	6,0	-	6	0,0	6,0
MATH	405	MATH405	Numerical Methods	6,0	3,0	3,0	-	6	3,0	3,0
MATH	409	MATH409	Proofs from the Notebook	6,0	0,0	6,0	-	10	0,0	10,0
MATH	410	MATH410	Introduction to Stochastic Calculus	6,0	0,0	6,0	-	6	0,0	6,0
MATH	414	MATH414	Finite Fields and Applications	6,0	0,0	6,0	-	6	0,0	6,0
MATH	479	MATH479	Calculus of Variations	6,0	0,0	6,0	-	6	0,0	6,0
MATH	480	MATH480	Spc.Top.in Mathematics	6,0	3,0	3,0	-	6	3,0	3,0
MATH	481	MATH481	Special Topics in Advanced Linear Algebra	6,0	0,0	6,0	-	6	0,0	6,0
ME	301	ME301	Mechanical Systems I	6,0	5,0	1,0	-	6	5,0	1,0
ME	302	ME302	Mechanical Systems II	6,0	6,0	0,0	-	6	6,0	0,0
ME	303	ME303	Control System Design	6,0	6,0	0,0	-	6	6,0	0,0
ME	304	ME304	Motion Control Systems	6,0	6,0	0,0	-	6	6,0	0,0
ME	305	ME305	Power Electronics	6,0	6,0	0,0	-	6	6,0	0,0
ME	307	ME307	Fluid Dynamics	6,0	5,0	1,0	-	6	5,0	1,0
ME	308	ME308	Industrial Control	6,0	6,0	0,0	-	6	6,0	0,0
ME	309	ME309	Heat and Mass Transfer	6,0	5,0	1,0	-	6	5,0	1,0
ME	310	ME310	Computer Aided Design	0,0	0,0	0,0	-	0	0,0	0,0
ME	312	ME312	Analysis and Synthesis of Mechanisms	6,0	6,0	0,0	-	6	6,0	0,0
ME	402	ME402	Plasmonics	6,0	5,0	1,0	-	6	5,0	1,0
ME	403	ME403	Introduction to Robotics	6,0	5,0	1,0	-	6	5,0	1,0
ME	405	ME405	Mechanical Vibrations	6,0	6,0	0,0	-	6	6,0	0,0
ME	406	ME406	Robotics Systems Application	0,0	0,0	0,0	-	0	0,0	0,0
ME	407	ME407	Embedded Systems	6,0	5,0	1,0	-	6	5,0	1,0
ME	408	ME408	Mechatronics System Design	6,0	6,0	0,0	-	8	8,0	0,0
ME	409	ME409	Foundations of Microsystems	7,0	5,0	2,0	-	6	4,3	1,7
ME	410	ME410	Computer Aided Engineering	6,0	4,0	2,0	-	6	4,0	2,0
ME	411	ME411	Mechanical System Design	6,0	5,0	1,0	-	8	6,7	1,3
ME	412	ME412	Introduction to the Finite Element Method	6,0	3,0	3,0	-	6	3,0	3,0
ME	415	ME415	Computational Analysis and Simulation	6,0	3,0	3,0	-	6	3,0	3,0
ME	420	ME420	Renewable and Sustainable Energy Systems	5,0	4,0	1,0	-	6	5,0	1,0
ME	425	ME425	Autonomous Mobile Robotics	6,0	5,0	1,0	-	6	5,0	1,0
ME	435	ME435	Scaling in Engineering Systems	6,0	3,0	3,0	-	6	3,0	3,0
ME	437	ME437	Biomechatronics	6,0	4,0	2,0	-	6	4,0	2,0
ME	480	ME480	Spc.Top.Manufact.Sys.Eng.	5,0	5,0	0,0	-	6	6,0	0,0
ME	480	ME480	Spc.Top.in Mechatronics I	6,0	4,0	2,0	-	6	4,0	2,0
ME	481	ME481	Spc.Top.Manufact.Sys.Eng.II	5,0	5,0	0,0	-	6	6,0	0,0
ME	481	ME481	Spc.Top.in Mechatronics II	6,0	3,0	3,0	-	6	3,0	3,0
ME	482	ME482	Spc.Top.Manufact.Sys.Eng.III	5,0	5,0	0,0	-	6	6,0	0,0
ME	441	ME441	Advanced Vehicle Systems	6,0	6,0	0,0	-	6	6,0	0,0
MGMT	201	MGMT201	Introduction to Management	6,0	2,0	2,0	-	6	0,0	0,0
MGMT	203	MGMT203	Introduction to Data Analysis and Research in Business	6,0	2,0	2,0	-	6	2,0	2,0
MS	301	MS301	Deterministic Models in Operations Research	7,0	5,0	2,0	-	8	5,7	2,3
MS	302	MS302	Stochastic Models in Operations Research	7,0	5,0	2,0	-	8	5,7	2,3
MS	303	MS303	Decision Economics	6,0	6,0	0,0	-	6	6,0	0,0
MS	304	MS304	Production and Service Systems Planning and Design	6,0	6,0	0,0	-	6	6,0	0,0
MS	305	MS305	Simulation	6,0	5,0	1,0	-	6	5,0	1,0
MS	306	MS306	Ergonomics	5,0	5,0	0,0	-	6	6,0	0,0
MS	307	MS307	Work Analysis and Design	5,0	5,0	0,0	-	6	6,0	0,0
MS	308	MS308	Cost Analysis and Control	5,0	5,0	0,0	-	6	6,0	0,0
MS	309	MS309	Manufacturing Processes I	6,0	5,0	1,0	-	6	5,0	1,0
MS	401	MS401	Production and Service Systems Operations	6,0	6,0	0,0	-	6	6,0	0,0
MS	402	MS402	Integrated Manufacturing Systems	7,0	7,0	0,0	-	8	8,0	0,0
MS	403	MS403	Quality Planning and Control	6,0	6,0	0,0	-	6	6,0	0,0
MS	405	MS405	Decision Analysis	6,0	6,0	0,0	-	6	6,0	0,0
MS	407	MS407	Investment Decision Making	6,0	6,0	0,0	-	6	6,0	0,0
MS	408	MS408	Reliability and Maintenance Analysis	6,0	6,0	0,0	-	6	6,0	0,0
MS	409	MS409	Project Scheduling and Management	6,0	6,0	0,0	-	6	6,0	0,0
MS	411	MS411	Modeling and Analysis of Large Systems	6,0	6,0	0,0	-	6	6,0	0,0
MS	412	MS412	Financial Engineering	6,0	6,0	0,0	-	6	6,0	0,0
MS	413	MS413	Information Systems	5,0	5,0	0,0	-	6	6,0	0,0
MS	414	MS414	Manufacturing Strategies	5,0	5,0	0,0	-	6	6,0	0,0
MS	415	MS415	Decision Support Systems	6,0	6,0	0,0	-	6	6,0	0,0
MS	417	MS417	Facilities and Material Handling Design	6,0	6,0	0,0	-	6	6,0	0,0
MS	418	MS418	Manufacturing Processes II	6,0	6,0	0,0	-	6	6,0	0,0
MS	419	MS419	Total Quality Management	5,0	5,0	0,0	-	6	6,0	0,0
MS	420	MS420	Storage and Distribution Systems	6,0	6,0	0,0	-	6	6,0	0,0
MS	425	MS425	Computational Operations Resea	6,0	3,0	3,0	-	6	3,0	3,0
MS	430	MS430	Logistics Systems Planning and Design	6,0	6,0	0,0	-	6	6,0	0,0
MS	432	MS432	Stochastic Models in Finance	6,0	4,0	2,0	-	6	4,0	2,0
MS	451	MS451	Data Visualization and Analysis	6,0	6,0	0,0	-	6	6,0	0,0
MS	454	MS454	Supply Chain Analysis	6,0	6,0	0,0	-	6	6,0	0,0
NS	101	NS101	Science of Nature I	6,0	0,0	6,0	-	6	0,0	6,0
NS	102	NS102	Science of Nature II	6,0	0,0	6,0	-	6	0,0	6,0
NS	200	NS200	Einstein's Relativity	5,0	0,0	5,0	-	6	0,0	6,0
NS	201	NS201	Discovering Life	6,0	1,0	5,0	-	6	1,0	5,0
NS	202	NS202	Biochemistry I	0,0	0,0	0,0	-	0	0,0	0,0
NS	204	NS204	Quantum Physics	4	0,0	0,0	-	0	0,0	0,0

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				After 2013-2014	After 2013-2014	After 2013-2014		Before 2013-2014	Before 2013-2014	Before 2013-2014
				ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
NS	205	NS205	Dynamics of the Cell	0,0	0,0	0,0	-	0	0,0	0,0
NS	206	NS206	What is There in the Universe: Inside the Milky Way?	5,0	0,0	5,0	-	6	0,0	6,0
NS	207	NS207	Organic Chemistry	7,0	?	?	-	8	2,7	5,3
NS	208	NS208	General Biotechnology	5,0	2,0	3,0	-	6	2,4	3,6
NS	209	NS209	What is there in the Universe: "Beyond the Milky Way"	5,0	0,0	5,0	-	6	0,0	6,0
NS	210	NS210	Water: Its Physics, Nanophysics, Chemistry and Geopolitics	5,0	0,0	5,0	-	6	0,0	6,0
NS	212	NS212	Volcanoes, Earthquakes, Rocks (Understanding the Earth)	5,0	0,0	5,0	-	5	0,0	5,0
NS	213	NS213	Basic Concepts of Physics	6,0	0,0	6,0	-	6	0,0	6,0
NS	214	NS214	Oscillations, Waves and Optics	6,0	0,0	6,0	-	6	0,0	6,0
NS	216	NS216	Life on Earth	6,0	1,0	5,0	-	6	1,0	5,0
NS	218	NS218	Fundamentals of Nanoscience	6,0	2,0	4,0	-	6	2,0	4,0
NS	220	NS220	World Energy Outlook: The Coming Year	6,0	3,0	3,0	-	6	3,0	3,0
NS	222	NS222	Planetary Systems and Extrasolar Planets	5,0	0,0	5,0	-	6	0,0	6,0
NS	223	NS223	Environmental Science	6,0	0,0	6,0	-	6	0,0	6,0
NS	224	NS224	Urban Agriculture	6,0	2,0	4,0	-	6	2,0	4,0
OPIM	301	OPIM301	Operations Management	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	302	OPIM302	Management Information Systems	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	390	OPIM390	Introduction to Business Analytics	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	401	OPIM401	Supply Chain Management	6,0	6,0	0,0	-	6	6,0	0,0
OPIM	402	OPIM402	Analytics for Business Decisions	6,0	6,0	0,0	-	6	6,0	0,0
OPIM	403	OPIM403	Service Operations Management	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	404	OPIM404	Business Process Analysis and Design	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	405	OPIM405	Management Decision Support Systems	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	406	OPIM406	Customer Relationship Management using Location Intelligence	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	407	OPIM407	Business Intelligence and Decision Support Systems	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	408	OPIM408	Business Intelligence & Marketing Analytics	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	409	OPIM409	Project Management	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	410	OPIM410	Decision Making Under Uncertainty	6,0	3,0	0,0	-	6	3,0	0,0
OPIM	416	OPIM416	Quality Improvement with Six Sigma	6,0	3,0	0,0	-	6	3,0	0,0
PHIL	321	PHIL321	Symbolic Logic	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	211	PHYS211	Modern Physics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	302	PHYS302	Solid State Physics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	303	PHYS303	Quantum Mechanics I	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	304	PHYS304	Quantum Mechanics II	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	312	PHYS312	Classical Mechanics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	313	PHYS313	Quantum Mechanics Laboratory	6,0	3,0	3,0	-	6	3,0	3,0
PHYS	322	PHYS322	Concepts of Modern Physics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	401	PHYS401	Classical Mechanics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	411	PHYS411	Electromagnetic Theory I	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	412	PHYS412	Statistical Mechanics	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	438	PHYS438	Phase Transitions and Renormalization-Group Theory	6,0	0,0	6,0	-	6	0,0	6,0
PHYS	484	PHYS484	Quantum Computation and Quantum Information	6,0	1,0	5,0	-	6	1,0	5,0
PHYS	492	PHYS492	Modern Topics in Condensed Matter Physics	6,0	0,0	6,0	-	6	0,0	6,0
POLS	434	POLS434	Formal Modelling and Analysis I	6,0	3,0	0,0	-	6	3,0	0,0
PROJ	102	PROJ102	Project Course	2,0	1,0	1,0	-	6	3,0	3,0
PROJ	201	PROJ201	Project Course	1,0	1,0	0,0	-	1	1,0	0,0
PROJ	302	PROJ302	Summer Project	5,0	5,0	0,0	-	2	2,0	0,0
PSY	201	PSY201	Mind and Behavior	6,0	0,0	2,0	-	6	0,0	2,0
PSY	310	PSY310	Cognitive Processes	6,0	0,0	3,0	-	6	0,0	3,0
PSY	315	PSY315	Memory	6,0	0,0	3,0	-	6	0,0	3,0
PSY	316	PSY316	Attention	6,0	0,0	3,0	-	6	0,0	3,0
PSY	350	PSY350	Biological Bases of Behaviour [with neuroscience components]	6,0	0,0	6,0	-	6	0,0	6,0
PSY	352	PSY352	Cognitive Neuroscience	6,0	0,0	5,0	-	6	0,0	5,0
PSY	380	PSY380	Testing and Measurement	6,0	0,0	0,0	-	6	0,0	0,0
PSY	390	PSY390	Sensation / Perception	6,0	0,0	5,0	-	6	0,0	5,0
PSY	415	PSY415	Selected topics in Memory and Attention	6,0	0,0	3,0	-	6	0,0	3,0
PSY	450	PSY450	Topics in Brain, Biology and Behaviour [with neuroscience components]	6,0	0,0	6,0	-	6	0,0	6,0
SPS	311	SPS311	Research Methods	7,0	0,0	0,0	-	6	0,0	0,0
SPS	315	SPS315	Analysis of Social Networks	6,0	3,0	3,0	-	6	3,0	3,0
TE	202	TE202	Electromagnetics II	0,0	0,0	0,0	-	0	0,0	0,0
TE	301	TE301	Introduction to Signal Processing and Information Systems	6,0	5,0	1,0	-	6	5,0	1,0
TE	302	TE302	Discrete-Time Signals and Systems	6,0	5,0	1,0	-	6	5,0	1,0
TE	303	TE303	Introduction to Communication Systems	6,0	5,0	1,0	-	6	5,0	1,0
TE	304	TE304	Digital Communications	6,0	4,0	2,0	-	6	4,0	2,0
TE	305	TE305	Electromagnetics II	6,0	6,0	0,0	-	6	6,0	0,0
TE	401	TE401	Microwaves	6,0	6,0	0,0	-	6	6,0	0,0
TE	402	TE402	Antennas and Propagation for Wireless Communication	6,0	6,0	0,0	-	8	8,0	0,0
TE	404	TE404	Multimedia Communication	6,0	6,0	0,0	-	6	6,0	0,0
TE	405	TE405	Digital Speech and Audio Processing	6,0	6,0	0,0	-	6	6,0	0,0
TE	407	TE407	Computer Vision	6,0	5,0	1,0	-	8	6,7	1,3
TE	409	TE409	Signal Processing Design and Implementation	6,0	4,0	2,0	-	8	5,3	2,7
TE	410	TE410	Information and Coding Theory	6,0	5,0	1,0	-	6	5,0	1,0
TE	412	TE412	Wireless Communications	6,0	4,0	2,0	-	6	4,0	2,0
TE	480	TE480	Special Topics in Telecommunications	6,0	6,0	0,0	-	6	6,0	0,0
VA	333	VA333	Web Design	6,0	0,0	0,0	-	6	0,0	0,0
VA	444	VA444	Interaction Design	6,0	3,0	3,0	-	6	3,0	3,0
VA	455	VA455	Physical Computing	6,0	3,0	3,0	-	6	3,0	3,0