

Subject	Number	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
BIO	301	Introduction to Molecular Biology	7.0	0.0	7.0	-	8	0.0	8.0
BIO	302	Techniques in Molecular Bio.	0.0	0.0	0.0	-	0	0.0	0.0
BIO	303	Genetics	7.0	2.0	5.0	-	6	1.7	4.3
BIO	304	Biological Function and Structure	5.0	1.0	4.0	-	6	1.2	4.8
BIO	305	Biochemistry II	0.0	0.0	0.0	-	0	0.0	0.0
BIO	306	Microbiology	7.0	0.0	7.0	-	8	0.0	8.0
BIO	308	Plant Physiology	7.0	0.0	7.0	-	6	0.0	6.0
BIO	310	Introduction to Bioinformatics	6.0	0.0	6.0	-	6	0.0	6.0
BIO	321	Biochemistry I	7.0	0.0	7.0	-	8	0.0	8.0
BIO	322	Biochemistry II	5.0	0.0	5.0	-	6	0.0	6.0
BIO	330	Environmental Plant Biology	5.0	0.0	5.0	-	6	0.0	6.0
BIO	332	Cell Biology	7.0	0.0	7.0	-	6	0.0	6.0
BIO	335	Analytical Techniques	6.0	1.0	5.0	-	6	1.0	5.0
BIO	363	Ecology	5.0	0.0	5.0	-	6	0.0	6.0
BIO	366	Biophysics: Molecules and Sys.	0.0	0.0	0.0	-	0	0.0	0.0
BIO	370	Mammalian Cell Culture	7.0	0.0	7.0	-	6	0.0	6.0
BIO	401	General Biotechnology	0.0	0.0	0.0	-	0	0.0	0.0
BIO	403	Plant Pathology	5.0	0.0	5.0	-	6	0.0	6.0
BIO	404	Plant Biotechnology	5.0	2.0	3.0	-	6	2.4	3.6
BIO	406	Protein Engineering	6.0	3.0	3.0	-	8	4.0	4.0
BIO	407	Multicellular Organization	5.0	0.0	5.0	-	6	0.0	6.0
BIO	409	Mod&Simul.of Biomolecular Proc	5.0	2.5	2.5	-	6	3.0	3.0
BIO	410	Evolution and Ecology	6.0	0.0	6.0	-	6	0.0	6.0
BIO	415	Plant Nutrition	5.0	0.0	5.0	-	6	0.0	6.0
BIO	432	Analytical Techniques	0.0	0.0	0.0	-	0	0.0	0.0
BIO	445	Plant Tissue Culture Techniques	7.0	3.0	4.0	-	6	2.6	3.4
BIO	447	Plant Breeding	5.0	0.0	5.0	-	6	0.0	6.0
BIO	452	Immunology	6.0	0.0	6.0	-	6	0.0	6.0
BIO	466	Biophysics: Molecules and Systems	5.0	2.0	3.0	-	6	2.4	3.6
BIO	467	Signal Transduction	6.0	1.0	5.0	-	6	1.0	5.0
BIO	480	Spc.Top.in Bio.Sci.&Bioeng.	5.0	0.0	5.0	-	6	0.0	6.0
BIO	481	Spc.Top.in Bio.Sci.&Bioeng.II	5.0	2.5	2.5	-	6	3.0	3.0
CHEM	202	Kinetics of Materials	7.0	2.0	5.0	-	7	2.0	5.0
CHEM	301	Inorganic Chemistry	6.0	1.0	5.0	-	6	1.0	5.0
CHEM	302	Analytical Chemistry	7.0	2.0	5.0	-	8	2.3	5.7
CHEM	369	Chem. of Transformable Mtrls.	6.0	3.0	3.0	-	6	3.0	3.0
CHEM	405	Electrochemistry	6.0	2.0	4.0	-	6	2.0	4.0
CS	201	Introduction to Computing	6.0	6.0	0.0	-	6	6.0	0.0
CS	202	Data Structures	6.0	6.0	0.0	-	6	6.0	0.0
CS	204	Advanced Programming	6.0	6.0	0.0	-	6	6.0	0.0
CS	210	Introduction to Data Science	6.0	4.0	2.0	-	6	4.0	2.0
CS	300	Data Structures	6.0	5.0	1.0	-	6	5.0	1.0
CS	301	Algorithms	6.0	5.0	1.0	-	6	5.0	1.0
CS	302	Formal Languages and Automata Theory	6.0	6.0	0.0	-	6	6.0	0.0
CS	303	Logic and Digital System Design	7.0	6.0	1.0	-	8	6.9	1.1
CS	305	Programming Languages	6.0	6.0	0.0	-	6	6.0	0.0
CS	306	Database Systems	6.0	6.0	0.0	-	6	6.0	0.0
CS	307	Operating Systems	6.0	6.0	0.0	-	6	6.0	0.0
CS	308	Software Engineering	7.0	7.0	0.0	-	8	8.0	0.0
CS	310	Mobile Computing	6.0	6.0	0.0	-	6	6.0	0.0
CS	400	Logic in Computer Science	6.0	1.0	5.0	-	6	1.0	5.0
CS	401	Computer Architectures	6.0	6.0	0.0	-	8	8.0	0.0
CS	402	Compiler Design	6.0	6.0	0.0	-	6	6.0	0.0
CS	403	Distributed Systems	6.0	6.0	0.0	-	6	6.0	0.0
CS	404	Artificial Intelligence	6.0	4.0	2.0	-	6	4.0	2.0
CS	405	Computer Graphics	6.0	4.0	2.0	-	6	4.0	2.0
CS	406	Parallel Computing	6.0	6.0	0.0	-	6	6.0	0.0
CS	407	Theory of Computation	6.0	6.0	0.0	-	6	6.0	0.0
CS	408	Computer Networks	6.0	6.0	0.0	-	6	6.0	0.0
CS	409	Introduction to Scientific Computing	6.0	4.0	2.0	-	6	4.0	2.0
CS	411	Cryptography	6.0	4.0	2.0	-	10	6.7	3.3
CS	412	Machine Learning	6.0	3.0	3.0	-	10	5.0	5.0
CS	432	Computer and Network Security	6.0	6.0	0.0	-	6	6.0	0.0
CS	450	Arts and Computing	6.0	6.0	0.0	-	6	6.0	0.0
CS	480	Spc.Top.in Comp.Science&Eng.I	6.0	6.0	0.0	-	6	6.0	0.0
CS	481	Spc.Top.in Comp.Science&Eng.II	6.0	6.0	0.0	-	6	6.0	0.0
ECON	201	Games and Strategies	6.0	3.0	0.0	-	6.0	3.0	0.0
ECON	202	Macroeconomics	6.0	0.0	0.0	-	6	0.0	0.0
ECON	204	Microeconomics	6.0	3.0	0.0	-	6	3.0	0.0
ECON	301	Econometrics	7.0	3.0	2.0	-	7	3.0	2.0
ECON	310	Game Theory	6.0	3.0	0.0	-	6	3.0	0.0
ECON	345	International Finance	6.0	0.0	0.0	-	6	0.0	0.0
ECON	360	Advanced Macroeconomics	7.0	0.0	0.0	-	7	0.0	0.0
ECON	370	Advanced Microeconomics	7.0	3.0	0.0	-	6	2.6	0.0
ECON	481	Microeconomics I	7.0	3.0	0.0	-	8	3.4	0.0
ECON	482	Microeconomics II	7.0	3.0	0.0	-	8	3.4	0.0
ECON	483	Advanced Macroeconomic Theory I	7.0	2.0	0.0	-	8	2.3	0.0
ECON	484	Advanced Macroeconomic Theory II	7.0	2.0	0.0	-	8	2.3	0.0
EE	200	Electronic Circuit Implement.	2.0	2.0	0.0	-	2	2.0	0.0
EE	202	Electronic Circuits II	7.0	7.0	0.0	EL202	8	8.0	0.0
EE	301	Electromagnetics II	6.0	6.0	0.0	TE305	6	6.0	0.0
EE	302	Digital Integrated Circuits	6.0	6.0	0.0	EL302	8	8.0	0.0
EE	303	Analog Integrated Circuits	6.0	6.0	0.0	EL303	6	6.0	0.0
EE	306	Intr.to Radio Freq&Microw Des.	6.0	6.0	0.0	EL306	6	6.0	0.0
EE	307	Semiconductor Physics and Devices	6.0	4.0	2.0	EL204	6	4.0	2.0
EE	308	Microcomputer Based Sys Design	7.0	7.0	0.0	EL308	8	8.0	0.0
EE	310	HW Description Languages	6.0	6.0	0.0	EL310	8	8.0	0.0
EE	311	Introduction to Signal Processing and Information Systems	6.0	5.0	1.0	TE301	6	5.0	1.0
EE	312	Discrete Signals & Systems	6.0	5.0	1.0	TE302	6	5.0	1.0
EE	313	Introduction to Communication Systems	6.0	5.0	1.0	TE303	6	5.0	1.0
EE	314	Digital Communications	6.0	4.0	2.0	TE304	6	4.0	2.0
EE	401	VLSI Systems Design I	6.0	6.0	0.0	EL401	8	8.0	0.0
EE	402	VLSI Systems Design II	6.0	6.0	0.0	EL402	6	6.0	0.0
EE	403	Optoelectronics	6.0	4.0	2.0	EL305	6	4.0	2.0
EE	404	Int. to Microelectromech. Sys.	6.0	6.0	0.0	EL404	6	6.0	0.0
EE	405	Communication Circuits Design	6.0	6.0	0.0	EL405	6	6.0	0.0
EE	406	Anten.&Propag.for Wireless Com	6.0	6.0	0.0	TE402	8	8.0	0.0
EE	407	Microelectronic Fabrication	6.0	6.0	0.0	EL407	6	6.0	0.0
EE	408	Modeling of Semicond. Devices	6.0	4.0	2.0	EL304	6	4.0	2.0

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			ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
EE	409	Microwaves	6.0	6.0	0.0	TE401	6	6.0	0.0
EE	410	Information and Coding Theory	6.0	5.0	1.0	TE410	6	5.0	1.0
EE	413	Wireless Communications	6.0	4.0	2.0	TE412	6	4.0	2.0
EE	414	Multimedia Communication	6.0	6.0	0.0	TE404	6	6.0	0.0
EE	415	Digital Speech&Audio Process.	6.0	6.0	0.0	TE405	6	6.0	0.0
EE	417	Computer Vision	6.0	5.0	1.0	TE407	8	6.7	1.3
EE	419	Signal Processing Design and Implementation	6.0	4.0	2.0	TE409	8	5.3	2.7
EE	444	Optics	6.0	5.0	1.0	EL444	6	5.0	1.0
EE	473	Biomedical Instrumentation	6.0	4.0	2.0	EL473	6	4.0	2.0
EE	480	Special Topics in Microelectronics	6.0	6.0	0.0	EL480	6	6.0	0.0
EE	482	Spc.Top.in Telecommunications	6.0	6.0	0.0	TE480	6	6.0	0.0
EL	202	Electronic Circuits II	7.0	7.0	0.0	-	8	8.0	0.0
EL	204	Semiconductor Physics and Devices	6.0	4.0	2.0	-	6	4.0	2.0
EL	302	Digital Integrated Circuits	6.0	6.0	0.0	-	8	8.0	0.0
EL	303	Analog Integrated Circuits	6.0	6.0	0.0	-	6	6.0	0.0
EL	304	Modeling of Semiconductor Devices	6.0	4.0	2.0	-	6	4.0	2.0
EL	305	Optoelectronics	6.0	4.0	2.0	-	6	4.0	2.0
EL	306	Introduction to Radio Frequency and Microwave Design	6.0	6.0	0.0	-	6	6.0	0.0
EL	308	Microcomputer Based System Design	7.0	7.0	0.0	-	8	8.0	0.0
EL	310	Hardware Description Languages	6.0	6.0	0.0	-	8	8.0	0.0
EL	401	Very Large Scale Integrated System Design I	6.0	6.0	0.0	-	8	8.0	0.0
EL	402	Very Large Scale Integrated System Design II	6.0	6.0	0.0	-	6	6.0	0.0
EL	404	Introduction to Microelectromechanical Systems	6.0	6.0	0.0	-	6	6.0	0.0
EL	405	Communication Circuit Design	6.0	6.0	0.0	-	6	6.0	0.0
EL	407	Microelectronic Fabrication	6.0	6.0	0.0	-	6	6.0	0.0
EL	444	Optics	6.0	5.0	1.0	-	6	5.0	1.0
EL	473	Biomedical Instrumentation	6.0	4.0	2.0	-	6	4.0	2.0
EL	480	Special Topics in Microelectronics	6.0	6.0	0.0	-	6	6.0	0.0
ENS	201	Electromagnetics I	6.0	4.0	2.0	-	6	4.0	2.0
ENS	202	Thermodynamics	6.0	3.0	3.0	-	6	3.0	3.0
ENS	203	Electronic Circuits I	7.0	7.0	0.0	-	8	8.0	0.0
ENS	204	Mechanics	6.0	5.0	1.0	-	6	5.0	1.0
ENS	205	Introduction to Materials Science I	6.0	4.0	2.0	-	6	4.0	2.0
ENS	206	Systems Modeling and Control	6.0	2.0	4.0	-	6	2.0	4.0
ENS	207	Introduction to Energy Systems	6.0	4.0	2.0	-	6	4.0	2.0
ENS	208	Introduction to Manufacturing Systems	6.0	6.0	0.0	-	6	6.0	0.0
ENS	209	Introduction to Computer Aided Drafting and Solid Modeling	6.0	5.0	1.0	-	6	5.0	1.0
ENS	210	Computational Biology	6.0	0.0	6.0	-	6	0.0	6.0
ENS	211	Signals	6.0	3.0	3.0	-	6	3.0	3.0
ENS	222	Intr.to Bio.Cir.&Molec.Machin	6.0	2.0	4.0	-	6	2.0	4.0
ENS	301	Energy Sys&Environment	6.0	3.0	3.0	-	6	3.0	3.0
ENS	302	Technology and Society	5.0	5.0	0.0	-	6	6.0	0.0
ENS	303	Introduction to Space Technology	6.0	4.0	2.0	-	6	4.0	2.0
ENS	315	Energy	5.0	2.0	3.0	-	6	2.4	3.6
ENS	413	Experimental Methods in Nanoscience I	6.0	0.0	6.0	-	6	0.0	6.0
ENS	414	Experimental Methods in Nanoscience II	6.0	0.0	6.0	-	6	0.0	6.0
ENS	416	Intr.to Scanning Probe Microsc	6.0	3.0	3.0	-	6	3.0	3.0
ENS	480	Sp.T. in Eng & Nat. Sciences I	6.0	6.0	0.0	-	6	6.0	0.0
ENS	481	Sp.T. in Eng&Nat. Sciences II	6.0	3.0	3.0	-	6	3.0	3.0
ENS	491	Graduation Project (Design)	2.0	2.0	0.0	-	2	2.0	0.0
ENS	492	Graduation Project(Implement.)	5.0	5.0	0.0	-	2	2.0	0.0
FIN	301	Financial Management	6.0	3.0	0.0	-	6	3.0	0.0
FIN	401	Corporate Finance	6.0	3.0	0.0	-	6	3.0	0.0
FIN	402	Investments	6.0	6.0	0.0	-	6	6.0	0.0
FIN	403	Derivative Securities	6.0	6.0	0.0	-	6	6.0	0.0
FIN	404	Multinational Corporate Finance	6.0	3.0	0.0	-	6	3.0	0.0
FIN	405	Corporate Mergers & Acquisitions	6.0	3.0	0.0	-	6	3.0	0.0
IE	301	Deterministic Models in OR	7.0	5.0	2.0	MS301	8	5.7	2.3
IE	302	Stochastic Models in OR	7.0	5.0	2.0	MS302	8	5.7	2.3
IE	303	Decision Economics	6.0	6.0	0.0	MS303	6	6.0	0.0
IE	304	Product & Serv.Sys Plan&Design	6.0	6.0	0.0	MS304	6	6.0	0.0
IE	305	Simulation	6.0	5.0	1.0	MS305	6	5.0	1.0
IE	306	Ergonomics	5.0	5.0	0.0	MS306	6	6.0	0.0
IE	307	Work Analysis & Design	5.0	5.0	0.0	MS307	6	6.0	0.0
IE	309	Manufacturing Processes I	6.0	5.0	1.0	MS309	6	5.0	1.0
IE	401	Produc.&Service Sys.Operations	6.0	6.0	0.0	MS401	6	6.0	0.0
IE	402	Integrated Manufacturing Sys.	7.0	7.0	0.0	MS402	8	8.0	0.0
IE	403	Quality Planning & Control	6.0	6.0	0.0	MS403	6	6.0	0.0
IE	405	Decision Analysis	6.0	6.0	0.0	MS405	6	6.0	0.0
IE	407	Investment Decision Making	6.0	6.0	0.0	MS407	6	6.0	0.0
IE	408	Reliability&Maintenance Analy.	6.0	6.0	0.0	MS408	6	6.0	0.0
IE	409	Project Scheduling & Managemen	6.0	6.0	0.0	MS409	6	6.0	0.0
IE	411	Modeling&Analysis of Large Sys	6.0	6.0	0.0	MS411	6	6.0	0.0
IE	412	Financial Engineering	6.0	6.0	0.0	MS412	6	6.0	0.0
IE	413	Informations Systems	5.0	5.0	0.0	MS413	6	6.0	0.0
IE	414	Manufacturing Strategies	5.0	5.0	0.0	MS414	6	6.0	0.0
IE	415	Decision Support Systems	6.0	6.0	0.0	MS415	6	6.0	0.0
IE	416	Additive Manufacturing	7.0	7.0	0.0	-	6	6.0	0.0
IE	417	Facilit.&Material Handling Des	6.0	6.0	0.0	MS417	6	6.0	0.0
IE	418	Manufacturing Processes II	6.0	6.0	0.0	MS418	6	6.0	0.0
IE	419	Total Quality Management	5.0	5.0	0.0	MS419	6	6.0	0.0
IE	420	Storage & Distribution Systems	6.0	6.0	0.0	MS420	6	6.0	0.0
IE	430	Logistics Sys&Plan. and Design	6.0	6.0	0.0	MS430	6	6.0	0.0
IE	432	Stochastic Models in Finance	6.0	4.0	2.0	MS432	6	4.0	2.0
IE	451	Data Visualization&Analysis	5.0	5.0	0.0	MS451	6	6.0	0.0
IE	454	Supply Chain Analysis	6.0	6.0	0.0	MS454	6	6.0	0.0
IE	471	Supply Chain Practice	5.0	5.0	0.0	-	5	5.0	0.0
IE	472	Strategic Decis.Making Pract.	5.0	5.0	0.0	-	5	5.0	0.0
IE	480	Spc.Top.Industrial Eng.	5.0	5.0	0.0	MS480	6	6.0	0.0
IE	481	Spc.Top.Industrial Eng.II	5.0	5.0	0.0	MS481	6	6.0	0.0
IE	482	Spc.Top.Industrial Eng.III	5.0	5.0	0.0	MS482	6	6.0	0.0
IE	483	Spc.Top.Industrial Eng.IV	5.0	5.0	0.0	-	5	5.0	0.0
IF	200	Fantasy,Reality,Sci.&Society	6.0	0.0	2.0	-	6	0.0	2.0
MAT	202	Kinetics	6.0	2.0	4.0	-	8	2.7	5.3
MAT	204	Electrical, Optical and Magnetic Properties of Materials	6.0	2.0	4.0	-	6	2.0	4.0
MAT	206	Kinetics	6.0	2.0	4.0	-	8	2.7	5.3
MAT	302	Polymer Synthesis	7.0	2.0	5.0	-	8	2.3	5.7
MAT	304	Biopolymers	5.0	2.5	2.5	-	6	3.0	3.0
MAT	305	Polymer Engineering I	5.0	4.0	1.0	-	6	4.8	1.2

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			ECTS TOTAL	ECTS Engineering	ECTS Basic Science		ECTS TOTAL	ECTS Engineering	ECTS Basic Science
MAT	306	Computational Techniques for Materials Science	5.0	2.0	3.0	-	6	2.0	4.0
MAT	307	Composite Materials	6.0	5.0	1.0	-	6	5.0	1.0
MAT	308	Phase Equilibria	5.0	4.0	1.0	-	6	4.8	1.2
MAT	309	Transport Phenomena in Materials Processing	6.0	6.0	0.0	-	6	6.0	0.0
MAT	310	Chemical Processes for New Materials	5.0	4.0	1.0	-	6	4.8	1.2
MAT	312	Materials Characterization	7.0	2.0	5.0	-	8	2.3	5.7
MAT	314	Mechanical Properties of Materials	5.0	4.0	1.0	-	6	4.8	1.2
MAT	401	Surface Chemistry	6.0	2.0	4.0	-	6	2.0	4.0
MAT	402	Polymer Engineering II	5.0	4.0	1.0	-	6	4.8	1.2
MAT	403	Polymer Processes	5.0	4.0	1.0	-	6	4.8	1.2
MAT	404	Polymer Physics	5.0	4.0	1.0	-	6	4.8	1.2
MAT	405	Advanced Materials Characterization	7.0	2.0	5.0	-	8	2.3	5.7
MAT	406	Introduction to Nanoscience	5.0	5.0	0.0	-	6	6.0	0.0
MAT	408	Introduction to Ceramics	5.0	4.0	1.0	-	6	4.8	1.2
MAT	416	Biomaterials Science and Biocompatibility	5.0	2.0	3.0	-	6	2.4	3.6
MAT	422	Glass Science and Engineering	5.0	2.5	2.5	-	10	5.0	5.0
MAT	480	Spc.Top.in Mat.Sci&Eng.	5.0	5.0	0.0	-	6	6.0	0.0
MAT	481	Spc.Top.in Mat.Sci&Eng.II	5	5	0.0	-	6	6.0	0.0
MATH	101	Calculus I	6.0	0.0	6.0	-	5	0.0	5.0
MATH	102	Calculus II	6.0	0.0	6.0	-	5	0.0	5.0
MATH	201	Linear Algebra	6.0	0.0	6.0	-	6	0.0	6.0
MATH	202	Differential Equations	6.0	0.0	6.0	-	6	0.0	6.0
MATH	203	Introduction to Probability	6.0	0.0	6.0	-	6	0.0	6.0
MATH	204	Discrete Mathematics	6.0	0.0	6.0	-	6	0.0	6.0
MATH	206	Vector Calculus	6.0	0.0	6.0	-	6	0.0	6.0
MATH	301	Introduction to Mathematical Analysis	6.0	0.0	6.0	-	6	0.0	6.0
MATH	302	Integration	6.0	0.0	6.0	-	6	0.0	6.0
MATH	305	Complex Calculus	6.0	0.0	6.0	-	6	0.0	6.0
MATH	306	Statistical Modelling	6.0	0.0	6.0	-	6	0.0	6.0
MATH	307	Dynamical Systems	6.0	0.0	6.0	-	6	0.0	6.0
MATH	311	Introduction to Algebra	6.0	0.0	6.0	-	6	0.0	6.0
MATH	317	Elementary Number Theory	6.0	0.0	6.0	-	6	0.0	6.0
MATH	318	Introduction to Combinatorics	6.0	0.0	6.0	-	6	0.0	6.0
MATH	322	Partial Differential Equations	6.0	0.0	6.0	-	6	0.0	6.0
MATH	401	Introduction to Functional Analysis	6.0	0.0	6.0	-	6	0.0	6.0
MATH	402	Hilbert Space Techniques	6.0	0.0	6.0	-	6	0.0	6.0
MATH	405	Numerical Methods	6.0	3.0	3.0	-	6	3.0	3.0
MATH	409	Proofs from the Notebook	6.0	0.0	6.0	-	10	0.0	10.0
MATH	410	Introduction to Stochastic Calculus	6.0	0.0	6.0	-	6	0.0	6.0
MATH	414	Finite Fields and Applications	6.0	0.0	6.0	-	6	0.0	6.0
MATH	480	Spc.Top.in Mathematics	6.0	3.0	3.0	-	6	3.0	3.0
MATH	481	Special Topics in Advanced Linear Algebra	6.0	0.0	6.0	-	6	0.0	6.0
ME	301	Mechanical Systems I	6.0	5.0	1.0	-	6	5.0	1.0
ME	302	Mechanical Systems II	6.0	6.0	0.0	-	6	6.0	0.0
ME	303	Control System Design	6.0	6.0	0.0	-	6	6.0	0.0
ME	304	Motion Control Systems	6.0	6.0	0.0	-	6	6.0	0.0
ME	305	Power Electronics	6.0	6.0	0.0	-	6	6.0	0.0
ME	307	Fluid Dynamics	6.0	5.0	1.0	-	6	5.0	1.0
ME	308	Industrial Control	6.0	6.0	0.0	-	6	6.0	0.0
ME	309	Heat and Mass Transfer	6.0	5.0	1.0	-	6	5.0	1.0
ME	310	Computer Aided Design	0.0	0.0	0.0	-	0	0.0	0.0
ME	312	Analysis and Synthesis of Mechanisms	6.0	6.0	0.0	-	6	6.0	0.0
ME	402	Plasmonics	6.0	5.0	1.0	-	6	5.0	1.0
ME	403	Introduction to Robotics	6.0	5.0	1.0	-	6	5.0	1.0
ME	405	Mechanical Vibrations	0.0	0.0	0.0	-	0	0.0	0.0
ME	406	Robotics Systems Application	0.0	0.0	0.0	-	0	0.0	0.0
ME	407	Embedded Systems	6.0	5.0	1.0	-	6	5.0	1.0
ME	408	Mechatronics System Design	6.0	6.0	0.0	-	8	8.0	0.0
ME	409	Foundations of Microsystems	7.0	5.0	2.0	-	6	4.3	1.7
ME	410	Computer Aided Engineering	6.0	4.0	2.0	-	6	4.0	2.0
ME	411	Mechanical System Design	6.0	5.0	1.0	-	8	6.7	1.3
ME	412	Nonlinear Control Systems	0.0	0.0	0.0	-	0	0.0	0.0
ME	415	Computational Analysis and Simulation	6.0	3.0	3.0	-	6	3.0	3.0
ME	420	Renewable and Sustainable Energy Systems	6.0	5.0	1.0	-	6	5.0	1.0
ME	425	Autonomous Mobile Robotics	6.0	5.0	1.0	-	6	5.0	1.0
ME	435	Scaling in Engineering Systems	6.0	3.0	3.0	-	6	3.0	3.0
ME	480	Spc.Top.Manufact.Sys.Eng.	5.0	5.0	0.0	-	6	6.0	0.0
ME	480	Spc.Top.in Mechatronics I	6.0	4.0	2.0	-	6	4.0	2.0
ME	481	Spc.Top.Manufact.Sys.Eng.II	5.0	5.0	0.0	-	6	6.0	0.0
ME	481	Spc.Top.in Mechatronics II	6.0	3.0	3.0	-	6	3.0	3.0
ME	482	Spc.Top.Manufact.Sys.Eng.III	5.0	5.0	0.0	-	6	6.0	0.0
MGMT	203	Introduction to Data Analysis and Research in Business	6.0	2.0	2.0	-	6	2.0	2.0
MS	301	Deterministic Models in Operations Research	7.0	5.0	2.0	-	8	5.7	2.3
MS	302	Stochastic Models in Operations Research	7.0	5.0	2.0	-	8	5.7	2.3
MS	303	Decision Economics	6.0	6.0	0.0	-	6	6.0	0.0
MS	304	Production and Service Systems Planning and Design	6.0	6.0	0.0	-	6	6.0	0.0
MS	305	Simulation	6.0	5.0	1.0	-	6	5.0	1.0
MS	306	Ergonomics	5.0	5.0	0.0	-	6	6.0	0.0
MS	307	Work Analysis and Design	5.0	5.0	0.0	-	6	6.0	0.0
MS	308	Cost Analysis and Control	6.0	6.0	0.0	-	6	6.0	0.0
MS	309	Manufacturing Processes I	6.0	5.0	1.0	-	6	5.0	1.0
MS	401	Production and Service Systems Operations	6.0	6.0	0.0	-	6	6.0	0.0
MS	402	Integrated Manufacturing Systems	7.0	7.0	0.0	-	8	8.0	0.0
MS	403	Quality Planning and Control	6.0	6.0	0.0	-	6	6.0	0.0
MS	405	Decision Analysis	6.0	6.0	0.0	-	6	6.0	0.0
MS	407	Investment Decision Making	6.0	6.0	0.0	-	6	6.0	0.0
MS	408	Reliability and Maintenance Analysis	6.0	6.0	0.0	-	6	6.0	0.0
MS	409	Project Scheduling and Management	6.0	6.0	0.0	-	6	6.0	0.0
MS	411	Modeling and Analysis of Large Systems	6.0	6.0	0.0	-	6	6.0	0.0
MS	412	Financial Engineering	6.0	6.0	0.0	-	6	6.0	0.0
MS	413	Information Systems	5.0	5.0	0.0	-	6	6.0	0.0
MS	414	Manufacturing Strategies	5.0	5.0	0.0	-	6	6.0	0.0
MS	415	Decision Support Systems	6.0	6.0	0.0	-	6	6.0	0.0
MS	417	Facilities and Material Handling Design	6.0	6.0	0.0	-	6	6.0	0.0
MS	418	Manufacturing Processes II	6.0	6.0	0.0	-	6	6.0	0.0
MS	419	Total Quality Management	5.0	5.0	0.0	-	6	6.0	0.0
MS	420	Storage and Distribution Systems	6.0	6.0	0.0	-	6	6.0	0.0
MS	425	Computational Operations Resea	6.0	3.0	3.0	-	6	3.0	3.0
MS	430	Logistics Systems Planning and Design	6.0	6.0	0.0	-	6	6.0	0.0

Subject	Number	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
MS	432	Stochastic Models in Finance	6.0	4.0	2.0	-	6	4.0	2.0
MS	451	Data Visualization and Analysis	5.0	5.0	0.0	-	6	6.0	0.0
MS	454	Supply Chain Analysis	6.0	6.0	0.0	-	6	6.0	0.0
NS	101	Science of Nature I	6.0	0.0	6.0	-	6	0.0	6.0
NS	102	Science of Nature II	6.0	0.0	6.0	-	6	0.0	6.0
NS	200	Einstein's Relativity	5.0	0.0	5.0	-	6	0.0	6.0
NS	201	Discovering Life	6.0	1.0	5.0	-	6	1.0	5.0
NS	202	Biochemistry I	0.0	0.0	0.0	-	0	0.0	0.0
NS	204	Quantum Physics	0.0	0.0	0.0	-	0	0.0	0.0
NS	205	Dynamics of the Cell	0.0	0.0	0.0	-	0	0.0	0.0
NS	206	What is There in the Universe: Inside the Milky Way?	5.0	0.0	5.0	-	6	0.0	6.0
NS	207	Organic Chemistry	6.0	2.0	4.0	-	8	2.7	5.3
NS	208	General Biotechnology	5.0	2.0	3.0	-	6	2.4	3.6
NS	209	What is there in the Universe: "Beyond the Milky Way"	5.0	0.0	5.0	-	6	0.0	6.0
NS	210	Water: Its Physics, Nanophysics, Chemistry and Geopolitics	5.0	0.0	5.0	-	6	0.0	6.0
NS	212	Volcanoes, Earthquakes, Rocks ( Understanding the Earth)	5.0	0.0	5.0	-	5	0.0	5.0
NS	213	Basic Concepts of Physics	6.0	0.0	6.0	-	6	0.0	6.0
NS	214	Oscillations, Waves and Optics	6.0	0.0	6.0	-	6	0.0	6.0
NS	216	Life on Earth	6.0	1.0	5.0	-	6	1.0	5.0
NS	218	Fundamentals of Nanoscience	6.0	2.0	4.0	-	6	2.0	4.0
NS	220	World Energy Outlook: The Coming Year	6.0	3.0	3.0	-	6	3.0	3.0
NS	222	Planetary Systems and Extrasolar Planets	5.0	0.0	5.0	-	6	0.0	6.0
NS	223	Environmental Science	6.0	0.0	6.0	-	6	0.0	6.0
NS	224	Urban Agriculture	6.0	2.0	4.0	-	6	2.0	4.0
OPIM	301	Operations Management	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	302	Management Information Systems	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	390	Introduction to Business Analytics	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	401	Supply Chain Management	6.0	6.0	0.0	-	6	6.0	0.0
OPIM	402	Analytics for Business Decisions	6.0	6.0	0.0	-	6	6.0	0.0
OPIM	403	Service Operations Management	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	404	Business Process Analysis and Design	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	405	Management Decision Support Systems	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	406	Customer Relationship Management using Location Intelligence	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	407	Business Intelligence and Decision Support Systems	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	408	Business Intelligence & Marketing Analytics	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	409	Project Management	6.0	3.0	0.0	-	6	3.0	0.0
OPIM	410	Decision Making Under Uncertainty	6.0	3.0	0.0	-	6	3.0	0.0
PHIL	321	Symbolic Logic	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	211	Modern Physics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	302	Solid State Physics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	303	Quantum Mechanics I	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	304	Quantum Mechanics II	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	312	Classical Mechanics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	313	Quantum Mechanics Laboratory	6.0	3.0	3.0	-	6	3.0	3.0
PHYS	322	Concepts of Modern Physics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	401	Classical Mechanics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	411	Electromagnetic Theory I	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	412	Statistical Mechanics	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	438	Phase Transitions and Renormalization-Group Theory	6.0	0.0	6.0	-	6	0.0	6.0
PHYS	484	Quantum Computation and Quantum Information	6.0	1.0	5.0	-	6	1.0	5.0
PHYS	492	Modern Topics in Condensed Matter Physics	6.0	0.0	6.0	-	6	0.0	6.0
POLS	434	Formal Modelling and Analysis I	6.0	3.0	0.0	-	6	3.0	0.0
PROJ	102	Project Course	2.0	1.0	1.0	-	6	3.0	3.0
PROJ	302	Summer Project	5.0	5.0	0.0	-	2	2.0	0.0
PSY	201	Mind and Behavior	6.0	0.0	3.0	-	6	0.0	3.0
PSY	303	Research Methods [with maths components]	7.0	0.0	3.0	-	6	0.0	2.6
PSY	350	Biological Bases of Behaviour [with neuroscience components]	6.0	0.0	3.0	-	6	0.0	3.0
PSY	380	Testing and Measurement	6.0	0.0	0.0	-	6	0.0	0.0
PSY	450	Topics in Brain, Biology and Behaviour [with neuroscience components]	6.0	0.0	3.0	-	6	0.0	3.0
SPS	311	Research Methods	7.0	0.0	0.0	-	6	0.0	0.0
SPS	315	Analysis of Social Networks	6.0	3.0	3.0	-	6	3.0	3.0
TE	202	Electromagnetics II	0.0	0.0	0.0	-	0	0.0	0.0
TE	301	Introduction to Signal Processing and Information Systems	6.0	5.0	1.0	-	6	5.0	1.0
TE	302	Discrete-Time Signals and Systems	6.0	5.0	1.0	-	6	5.0	1.0
TE	303	Introduction to Communication Systems	6.0	5.0	1.0	-	6	5.0	1.0
TE	304	Digital Communications	6.0	4.0	2.0	-	6	4.0	2.0
TE	305	Electromagnetics II	6.0	6.0	0.0	-	6	6.0	0.0
TE	401	Microwaves	6.0	6.0	0.0	-	6	6.0	0.0
TE	402	Antennas and Propagation for Wireless Communication	6.0	6.0	0.0	-	8	8.0	0.0
TE	404	Multimedia Communication	6.0	6.0	0.0	-	6	6.0	0.0
TE	405	Digital Speech and Audio Processing	6.0	6.0	0.0	-	6	6.0	0.0
TE	407	Computer Vision	6.0	5.0	1.0	-	8	6.7	1.3
TE	409	Signal Processing Design and Implementation	6.0	4.0	2.0	-	8	5.3	2.7
TE	410	Information and Coding Theory	6.0	5.0	1.0	-	6	5.0	1.0
TE	412	Wireless Communications	6.0	4.0	2.0	-	6	4.0	2.0
TE	480	Special Topics in Telecommunications	6.0	6.0	0.0	-	6	6.0	0.0
VA	333	Web Design	6.0	0.0	0.0	-	6	0.0	0.0
VA	444	Interaction Design	6.0	3.0	3.0	-	6	3.0	3.0
VA	455	Physical Computing	6.0	3.0	3.0	-	6	3.0	3.0