

Major Elective Subjects List for IsysE

■ Dept. of Industrial & Systems Engineering

2013. 3.

Dept.	Subject No.	Course Name	Remark
Biological Sciences	BS209	Molecular Biology	
	BS223	Introductory Biotechnology	
	BS433	Molecular Biology of Gene Regulation	
	BS463	Genetic Engineering	
Mathematical Sciences	MAS212	Linear Algebra	
	MAS241	Analysis I	
	MAS242	Analysis II	
	MAS270	Logic and Set Theory	
	MAS275	Discrete Mathematics	
	MAS311	Modern Algebra I	
	MAS350	Elementary Probability Theory	
	MAS365	Introduction to Numerical Analysis	
	MAS371	Introduction to Financial Mathematics	
	MAS374	Optimization Theory	
	MAS410	Introduction to Cryptography	
	MAS472	Computer Simulations in Financial Mathematics	
	MAS475	Combinatorial Theory	
MAS476	Game Theory		
Civil and Environ. Engineering	CE201	Mechanics of Materials	
	CE206	Introduction to sustainable Engineering	
	CE272	Environmental Science	
	CE474	Environmental Management Engineering	
Mechanical Engineering	MAE200	Basic Mechanical Practice	
	MAE205	Mechanical Engineering Laboratory	
	MAE206	Meachine System Automation	
	MAE208	New Design and Experience in Mechanical Systems	
	MAE231	Mechanics of Materials	
	MAE302	Creative Problem Solving	
	MAE370	Understanding of Materials and Processing	
	MAE453	Introduction to Robotics Engineering	
MAE460	Automatic Control		
Aerospace Engineering	MAE230	Mechanics of Materials	
Industrial Design	ID213	Product Design Fundamentals	
	ID216	Product Design Engineering	
	ID301	Product Design Factors	
	ID303	Design Methodology	
	ID304	Product Design Program	
	ID307	Interface Design	

Dept.	Subject No.	Course Name	Remark
Industrial Design	ID308	Interaction Design	
	ID309	CAD & 3D Modeling	
	ID310	Information Design	
	ID401	Theory of New Product Development	
	ID403	Product Design System	
	ID407	Product-Environment Design	
Chemical & Biomolecular Engineering	CBE205	Chemical and Biomolecular Engineering Analysis	
	CBE260	Biomolecular Engineering	
	CBE362	Bioinformatics	
	CBE471	Introduction to Environmental Engineering	
	CBE483	Engineering Principles of Human Physiology	
Mater. Science & Eng.	MS481	Semiconductor Processing	
	MS635	Semiconductor Integrated Process Design	
Nuclear and Quantum Engineering	NQE201	Fundamentals of Nuclear and Quantum Sci.	
	NQE202	Introduction to Nuclear Engineering	
	NQE281	Energy, Environment and Water	
	NQE272	Introduction to Medical Physics	
Electrical Engineering	EE201	Circuit Theory	
	EE202	Signals and Systems	
	EE303	Digital System Design	
	EE204	Electromagnetics	
	EE205	Data Structures and Algorithms for Electrical Engineering	
	EE206	Electronic Circuits	
	EE305	Introduction to electronics design Lab	
	EE312	Introduction to Computer Architecture	
	EE414	Embedded Systems	
	EE321	Communication Engineering	
	EE342	Radio Engineering	
	EE372	Digital Electronic Circuits	
	EE381	Control System Engineering	
	EE411	Switching and Automata Theory	
	EE324	Network Programming	
EE421	Wireless Communication Systems		
	CS204	Discrete Mathematics	
	CS206	Data Structure	
	CS211	Digital System and Lab.	
	CS230	System Programming	
	CS300	Introduction to Algorithms	
	CS310	Embedded computer systems	
	CS320	Programming Language	

Dept.	Subject No.	Course Name	Remark
Computer Science	CS322	Formal Languages and Automata	
	CS350	Introduction to Software Engineering	
	CS360	Introduction to Database	
	CS370	Symbolic Programming	
	CS402	Introduction to Logic for Computer Science	
	CS440	Data Communication	
	CS341	Introduction to Computer Networks	
	CS470	Introduction to Artificial Intelligence	
	CS380	Introduction to Computer Graphics	
Biological Sciences	BiS200	Bioengineering Fundamentals	
	BiS232	Bio-Data Structures	
	BiS252	Bioinstrumentation Fundamentals	
	BiS470	BioNano Engineering	
	BiS321	Systems Bioengineering	
	BiS437	Bio-Data Engineering	
	BiS438	Bioinformatics	
	BiS351	Biological-Signal Processing	
	BiS377	Biomechanics	
	BiS352	Systems Biotechnology	
	BiS432	Biomedical Statistics	
Management Science	MSB230	Principles of Accounting	
	MSB235	Financing	
	MSB236	Marketing	
	MSB316	Macroeconomics	
	MSB401	Management of Technology Innovation	
	MSB215	Microeconomics	
	MSB411	Investments	
	MSB450	Entrepreneurship & Venture Business	
	MSB530	Accounting Principles	
Culture Tech.	GCT582	Culture Content Industry	
Mgt. Science	MGT340	Manage people and Organization	