

Curriculum(Undergraduate Course)

Classification	Subject Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective Basic Course	31.101	Introduction to Operations Research	3:1:3(4)	Spring and Fall	
Mandatory Major Courses	31.221	Production Management I	3:0:3(6)	Fall	
	31.232	Operations Research: Stochastic Models	3:1:3(4)	Fall	
	31.241	Engineering Statistics I	3:0:3(6)	Spring	
	31.242	Engineering Statistics II	3:0:3(6)	Fall	
	31.251	Manufacturing Process Innovation	3:1:3(4)	Spring	
	31.260	Data Structure and Analysis	3:1:3(6)	Spring	
	31.261	Information Technology for Industrial Engineering	3:1:3(6)	Fall	
	31.331	Operations Research: Optimization	3:1:3(3)	Spring	
Elective Courses	31.231	Applied Real Analysis and Probability	3:0:3	Spring	
	31.310	Work Study	2:3:3(5)	Fall	
	31.312	Introduction to Human Engineering	2:3:3(2)	Spring	
	31.322	Production Management II	3:0:3(6)	Spring	
	31.342	Regression Analysis and Experimental Designs	3:0:3(4)	Fall	
	31.343	Statistical Machine Learning	3:1:3(5)	Spring	
	31.353	Product Development and Product Information Management	3:1:3(6)	Spring	
	31.361	Human-Computer Interaction Design	3:1:3(4)	Spring	
	31.363	Introduction to Modeling and Simulation	3:1:3(5)	Fall	
	31.371	Service Systems Engineering	3:1:3	Spring	
	31.413	Aesthetic Engineering	2:3:3(3)	Fall	
	31.414	Cognitive Science and Systems	3:1:3(4)	Fall	
	31.416	Techniques and Methods in Human Engineering	3:1:3	Fall	◎
	31.421	Engineering Economy and Cost Analysis	3:0:3(6)	Spring	
	31.423	Logistics Management	3:1:3(5)	Fall	
	31.425	Project Management	3:1:3(4)	Spring	◎
	31.426	Supply Chain Management	3:1:3(5)	Spring	◎
	31.431	Introduction to Optimization Theory	3:0:3(3)	Spring	◎
	31.432	Decision Analysis and Risk Management	3:0:3(4)	Spring	◎
	31.434	Introduction to Telecommunication Service and Systems	3:1:3(3)	Spring	◎
31.435	Telecommunication Service and Policy	3:0:3(6)	Fall	◎	
31.436	Case Studies for Industrial &	3:1:3(4)	Fall		

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		Systems Engineering			
	31.437	Data-Driven Decision Making and Control	3:1:3	Spring	◎
	31.441	Quality Control	3:0:3(6)	Spring	
	31.451	IT Service Engineering	3:1:3(6)	Spring	◎
	31.452	System Design Project	2:3:3(5)	Spring	
	31.453	Conceptual Design for Engineering Products	3:0:3	Spring	◎
	31.461	Business Process Engineering and Management	3:0:3(6)	Fall	◎
	31.463	Information Systems Engineering and Management	3:0:3	Spring	◎
	31.471	Introduction to Financial Engineering	3:0:3		◎
	31.472	Socio-Economic Systems Modeling)	3:0:3	Spring	◎
	31.473	Financial Economics	3:0:3	Fall	◎
	31.481	Special Topics in Industrial Engineering I	3:0:3		
	31.482	Special (Invited) Lecture I	1:0:1		
	31.483	Special (Invited) Lecture II	2:0:2		
Research	31.490	B.S. Thesis	0:6:3		
	31.495	Individual Study	0:6:1		
	31.496	Seminar in B.S.	1:0:1	Spring	

Substitutable Course List

Substitutable subjects in Department of Industrial & Systems Engineering					
Classification	opened course		unopened course		
	Subject No.	Subject Name	Subject No.	Subject Name	Remark
Mandatory Major Courses	IE260	Data Structure and Analysis	IE362	Programming & practices for Industrial Information System	subject name was changed
				Applied Data Structures and Algorithms	
Elective Courses	IE343	Statistical Machine Learning	IE442	Statistical Data Analysis	subject name was changed
Elective Courses	IE541	Advanced Engineering Statistics	IE641	Mathematical Statistics	subject name was changed

Substitutable subjects from other departments					
Classification	IE courses		courses from other departments		
	Subject No.	Subject Name	Subject No.	Subject Name	Remark
Mandatory Major Courses	IE362	Applied Data Structures and Algorithms(unopened)	CS206	Data Structure	one-way substitution
Mandatory Major Courses	IE260	Data Structure and Analysis			
Elective Courses	IE231	Applied Real Analysis and Probability	FEP321	Analysis and Probability for Finance	Two-way substitution
Elective Courses	IE421	Engineering Economy and Cost Analysis	CC513	Engineering Economy and Cost Analysis	one-way substitution
Elective Courses	IE471	Introduction to Financial Engineering	FEP311	Introduction to Financial Engineering	Two-way substitution
Elective Courses	IE565	Information Security Policy and Management	IS532	Information Security policy and management	Two-way substitution
Elective Courses	IE566	Human-Computer Interaction: Theory and Design	KSE531	Human-Computer Interaction: Theory and Design	Two-way substitution
Elective Courses	IE577	Fundamentals of Systems Engineering	AE500	Synthetic Design of Aerospace Systems	one-way substitution
Elective Courses	IE636	Intelligent Systems & Soft Computing	KSE622	Soft-computing in Intelligent System Design	Two-way substitution
Elective Courses	IE646	Data Mining	KSE525	Data Mining and Knowledge Discovery	Two-way substitution
Elective Courses	IE761	Cognitive Engineering	KSE641	Cognitive Engineering	Two-way substitution