

Concentration Areas of IE Graduate Courses

COURSE	TITLE	OR/PSL	IMS	IS	AY22-23 Semester for Course offering
IEE 505	Information Systems Engineering (3)		X		
IEE 506	Web-Enabled Decision Support Systems		X		Spring23 (P & OL)
IEE 511	Analysis of Decision Processes (3)	X	X	X	
IEE 512	Introduction to Financial Engineering (3)	X	X		Fall22 (P & OL)
IEE 520	Statistical Learning for Data Mining (3)		X	X	Fall22 (P & OL)
IEE 521	Urban Operations Research	X			
IEE 526	Operations Research in Healthcare	X			
IEE 530	Enterprise Modeling (3)		X		
IEE 533	Scheduling (3)	X			
IEE 534	Supply Chain Modeling and Analysis (3)	X			Spring23 (Hybrid? & OL)
IEE 535	Introduction to International Logistics Systems (3)	X			Fall22 (P)
IEE 541	Engineering Administration (3)		X		Fall22 (P & OL), Spring23 (OL)
IEE 545	Advanced Simulating Stochastic Systems (3)	X			Fall22 (P & OL)
IEE 552	Strategic Technological Planning (3)		X		Fall22 (OL)
IEE 556	Introduction to Systems Engineering		X		Spring23 (P & OL)
IEE 561	Production Systems (3)	X			Spring23 (P & OL)
IEE 570	Advanced Quality Control (3)		X	X	Fall22 (P & OL)
IEE 571	Quality Management (3)			X	Spring23 (OL) and Fall22 (P)
IEE 572	Design Engineering Experiments (3)			X	Fall22 and Spring23 (P & OL)
IEE 573	Reliability Engineering (3)			X	Spring23 (P) and Summer23 (OL)
IEE 574	Applied Deterministic Operations research Models (3)	X			Fall22 (P) and Summer23 (OL)
IEE 575	Applied Stochastic Operations Research Models (3)	X			Spring23 (P & OL)
IEE 576	Network Optimization and Algorithms	X			Spring23? (P)
IEE 577	Data Science for Systems Decision Analytics		X	X	
IEE 578	Regression Analysis (3)			X	Fall22 (OL)

IEE 579	Time Series Analysis and Forecasting (3)			X	Spring23 (OL)
IEE 581	Six Sigma Methodology (3)			X	Fall22 (P& OL)
IEE 582	Response Surfaces and Process Optimization (3)	X	X	X	
IEE 605	Foundations of Information Systems Engineering (3)		X		Spring23 (P)
IEE 620	Optimization I (3)	X			Fall22 (P)
IEE 622	Optimization II (3)	X			Spring23 (P)
IEE 640	Probability & Stochastic Model (3)	X			Fall22 (P)
IEE 670	Mathematical Statistics (3)			X	Fall22 (P)
IEE 672	Advanced Topics in Experimental Design (3)			X	
IEE 598	Bio-inspired AI and Optimization (Ted)	X			Spring23 (P every two years)
IEE 598	Computing for Data-Driven Optimization (Geun)	X			
IEE 598	Temporal Learning (George)		X	X	
IEE 598	Computational Social Choice (Adolfo)	X	X		
IEE 598	Applied Bayesian and Graphical Models for Data Scientists and Engineers (Rong)			X	Fall22
BMI 501	Intro to Biomedical Informatics			X	
BMI 502	Foundations of BMI Methods I			X	
CSE 520	Computer Architecture II (3)		X		
CSE 534	Advanced Computer Networks (3)		X		
CSE 536	Advanced Operating Systems (3)		X		
CSE 550	Combinatorial Algorithms and Intractability (3)	X	X		
FSE 501	Technology Entrepreneurship		X		
FSE 502	Strategic Enterprise Innovation		X		
STP 526	Theory of Statistical Linear Models (3)			X	
STP 532	Applied Nonparametric Statistics (3)			X	
STP 533	Applied Multivariate Analysis (3)			X	
STP 534	Applied Discrete Data Analysis (3)			X	
STP 540	Computational Statistics			X	

APM 523	Numerical Optimization (3)	X			
ECON 515	Time Series Forecasting			X	

OR/PSL = Operations Research/Production Systems and Logistics

IMS = Information Management and Systems

IS = Industrial Statistics

Core courses:

561 or 545

1. IEE 505 – Information Systems Engineering or
IEE 506 - Web-Enabled Decision Support Systems
2. IEE 561 – Production Systems
3. IEE 572 - Design of Engineering Experiments or
IEE 573 – Reliability Engineering or
IEE 578 – Regression Analysis
4. IEE 574 – Applied Deterministic Operations Research Models or
IEE 575 – Applied Stochastic Operations Research Models

STP 530 Regression Analysis