

Industrial Engineering Course Schedule – Autumn 2007

edited 10/05/07

Course #	Course Title	Instructor	Cr.	Days	Time	Room	SLN
IND E 101	Intro. Indust. Engr.	Heim	1	M	3:30-4:20	MOR 220	14237
<i>Basics of industrial cost analysis and accounting. Application of interest computations to engineering decision making. Analysis of engineering alternatives based on use of interest computations, valuations, depreciation, and cost estimates in process and product manufacturing.</i>							
IND E 250A	Fund. Engr. Economics	Solorio/Liu	4	MTWF	8:30-9:20	MEB 248	14238
<i>Basics of industrial cost analysis and accounting. Application of interest computations to engineering decision making. Analysis of engineering alternatives based on use of interest computations, valuations, depreciation, and cost estimates in process and product manufacturing.</i>							
IND E 315A	Probability/Stats. for Engr.	Johnson	3	MWF	1:30-2:20	BAG 154	14240
<i>Application of probability theory and statistics to engineering problems, distribution theory and discussion of particular distributions of interest in engineering, statistical estimation and data analysis. Prerequisite: either MATH 136 or MATH 307.</i>							
IND E 337A	Intro to Manufact. Systems	Storch	4	TTh	2:30-5:20	MEB 103	14241
<i>Description of manufacturing systems. Includes discussion of current trends in manufacturing. Introduces process flow analysis, manufacturing organizations including job-shop, assembly lines, and group technology, manufacturing inventory philosophies (just-in-time, MRP, OPT), work environment, and work simplification.</i>							
IND E 410	Linear Programming	Zabinsky	4	MW F	9:30-10:50 9:30-11:20	MEB 103 MGH 044	18748
<i>Modeling and optimization of linear network problems. Topics include: optimization of linear systems, mathematical model design, simplex method, primal-dual algorithms, parametric programming, goal programming, network problems and algorithms, and PERT/CPM. Prerequisite: either MATH 136 or MATH 308; CSE 142</i>							
IND E 439	Plant Layout & Material Handling	Beamon	4	TTh	10:30-12:20	MGH 251	14242
<i>Design of new or expanding industrial facilities. Consideration of work organization and layout. Study of basic design of plant systems, including plumbing, electrical, HVAC, illumination, acoustics, and waste handling. In depth coverage of material handling system design and equipment choices. Prerequisite: IND E 310.</i>							
IND E 455A	User Interface Design	Furness	4	MWF F	11:30-12:20 2:30-4:20	MGH 241 MGH 030	14243
<i>Design oriented to cover fundamentals of user interface design; models on human computer interaction, software psychology, input devices, usability, cognitive and perceptual aspects of human-computer interaction, advanced interface, and research methodologies are discussed. Offered jointly with TC 455A.</i>							
IND E 470	Systems Engineering	Vaughan	4	MF W	3:30-4:20 3:30-5:20	LOW 206 LOW 206	19459
<i>Concepts of system approach, system hierarchies, functional analysis, requirements, trade studies, and other concepts used to define and integrate complex engineering systems. Prerequisite: CSE 142. Offered: jointly with A&A. Also offered through EDGE.</i>							
IND E 499A	Special Projects in IE	Faculty	2-5	by arrangement			14245
IND E 499H	Honors – Special Projects	Faculty	2-5	by arrangement			14246

IND E 513	Linear Opt. Models in Engr.	Ghate	3	MW	11:30-12:50	MOR 225	14247
<i>Advanced formulation techniques to expand applications of linear programming to large-scale models. Appreciation of role of optimization models in engineering applications through introduction of techniques such as decomposition. Individual engineering projects. Prerequisite: IND E 310 and MATH 308 or permission of instructor.</i>							
IND E 537A	Intro to Mfg. Systems	Storch	3	TTh	2:30-5:20	MEB 103	14251
<i>Graduate-level equivalent to IND E 337.</i>							
IND E 543	Virtual Interface Technology	Furness	1-3	MW	1:30-2:50	LOW 105	14252
<i>Explores advanced concepts and technologies for interfacing humans to complex machines, with focus on virtual interfaces. Interface design principles reviewed from psychological and technological perspectives. Hardware, software, and mindware aspects of virtual interfaces investigated. Applications postulated and designed.</i>							
IND E 570	Supply Chain Systems	Beamon	3	TTh	2:30-3:50	LOW 206	18704
<i>Develops concepts related to the design, evaluation, and performance of supply chain systems through an exploration of contemporary practice and research, focusing on current issues, analytical frameworks, and case studies. Prerequisite: IND E 315 or equivalent. Also offered through EDGE.</i>							
IND E 591A	Graduate Seminar	Zabinsky	1	T	1:30-2:20	EEB 025	14255
<i>Credit/no credit only. Topics of current interest in industrial engineering. Prerequisite: graduate standing in Industrial Engineering or permission of instructor.</i>							
IND E 599A	Special Topics in IE	Faculty	1-5	by arrangement			14256
IND E 599B	GISE	Mastrangelo	9	alternating F/SAT	F in EEB 025 Sat in MEB 238		14257
IND E 599D	Health & Safety Hazards in Ind.	Seixas	2	F	10:30-12:20	HST T635	19619
IND E 600A	Independent Study/Research	Faculty	1-10	by arrangement			14258
IND E 700A	Master's Thesis	Faculty	1-10	by arrangement			14259
IND E 800A	Doctoral Dissertation	Faculty	1-10	by arrangement			14260