

Mapping of Required IE Courses to Applicable Student Outcomes

Industrial Engineering	Student Outcomes for All ABET-Accredited Engineering Programs (a-k)											IE Program-Specific Student Outcomes (aaa-bbb)	
	Ability to apply mathematics, science, and engineering	Ability to design and conduct experiments, as well as to analyze and interpret data	Ability to design a system, component, or process to meet desired needs	Ability to function on multi-disciplinary teams	Ability to identify, formulate, and solve engineering problems	Understanding of professional and ethical responsibility	Ability to communicate effectively	Broad education necessary to understand the impact of engineering solutions in a global and societal context	Recognition of the need for, and an ability to engage in life-long learning	Knowledge of contemporary issues	Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	Ability to design, develop, implement and improve integrated systems that include people, materials, information, equipment and energy	Ability to accomplish the integration of systems using appropriate analytical, computational, and experimental practices
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(aaa)	(bbb)
Required IE Course	"X" = Course includes learning outcome(s) that directly support the associated ABET and/or program-specific student outcome												
MIME 101 - Introduction to MIME			X	X		X	X	X			X		
IE 212 - Computational Methods for IE	X		X		X		X		X				
IE 285 - Intro to Ind & Manf. Engr.			X		X	X	X	X					
ME 250 - Intro. Manufacturing Process											X		
ENGR 112 - Intro to Engr. Computing					X						X		
ENGR 212 - Dynamics	X				X						X		
ENGR 213 - Strength of Materials	X				X								
ENGR 248 - Engr. Graphics-3-D Model	X						X				X		
ENGR 390 - Engr. Economy	X				X						X		
ENGR 321 - Intro. Materials Science	X				X					X			
MFGE 337 - Materials & Manuf. Processes	X	X	X		X					X			
IE 355 - Statistical Quality Control	X	X									X		
IE 356 - Experimental Design	X	X	X	X	X		X				X		
IE 366 - Work Systems Engr.	X		X		X	X	X	X		X	X	X	X
IE 367 - Production Planning & Control			X	X	X		X	X			X		
IE 368 - Facility Design & Ops. Mft.	X		X		X		X						X
IE 412 - Information Systems Engr.			X		X				X		X	X	
IE 415 - Simulation & Decision Support	X	X	X	X	X		X				X		X
IE 425 - Industrial Systems Optimization	X				X						X		
IE/ME 497/498 - MIME Capstone Design			X	X		X	X					X	