

Mapping of Required ME Courses to Applicable Student Outcomes

Mechanical Engineering	Student Outcomes for All ABET-Accredited Engineering Programs (a-k)											ME Program-Specific Student Outcomes (aa-cc)		
	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, lifelong learning	Knowledge of contemporary issues	Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	Ability to apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations)	Ability to model, analyze, design, and realize physical systems, components or processes	Ability to prepare students to work professionally in either thermal or mechanical systems areas
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(aa)	(bb)	(cc)
Required ME 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			
ME 250 - Intro. Manuf. Process											X			
ENGR 112 - Intro to Engr. Computing					X						X		X	
ENGR 212 - Dynamics	X				X						X		X	
ENGR 213 - Strength of Materials	X				X								X	
ENGR 248 - Engr. Graphics-3-D Model	X						X				X			
ENGR 391 - Engr. Economic & Project Mgt.	X				X	X				X	X			
ENGR 321 - Intro. Materials Science	X				X					X			X	
ENGR 322 - ME Properties of Materials	X	X		X	X		X				X			
ME 311 - Intro. Thermal-Fluid Sciences					X								X	
ME 312 - Thermodynamics			X		X								X	X
ME 316 - Mechanics of Materials	X				X						X		X	
ME 317 - Intermediate Dynamics					X						X		X	
ME 331 - Introductory Fluid Mechanics		X			X								X	
ME 332 - Heat Transfer			X		X								X	X
ME 373 - ME Engr. Methods					X						X		X	
ME 382 - Intro.to Design	X		X	X	X	X	X	X	X		X			X
ME 383 - Mechanical Component Design	X					X	X		X	X	X			X
ME 430 - Systems Dynamics & Control	X	X	X		X									
ME 451 - Intro.to Instru. & Measurement Systems		X					X							
IE/ME 497/498 - MIME Capstone Design			X	X		X	X							