

Student Learning Outcomes Library

Office of Assessment & Accreditation

Indiana State University

BS Mechanical Engineering Technology

Spring 2020

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Outcome	Related Foundational Studies or Graduate Goal
Solve technical problems—Apply the latest technology and engineering tools to solve technical problems in the practice of mechanical engineering technology and related interdisciplinary fields	
1.1 Appropriate mastery of techs, skills, and tools of the MET discipline	
1.2 Apply current knowledge, adapt to emerging applications of mathematics, science, engineering, and technology	
1.3 Conduct, analyze and interpret experiments, and apply experimental results to improve processes	
1.4 Apply creativity in the design of systems an ability to apply creativity in the design of systems, components, or processes appropriate to the MET program educational objective	
1.5 Identify, analyze and solve technical (close--ended analysis and open-ended design) problems	Foundational Studies 2: Critically evaluate the ideas of others.
1.6 Develop, simulate, and analyze mechanical components/systems using computer--aided design and analysis tools	

1.7 Select engineering materials for specific applications	
1.8 Identify and inspect tolerances in mechanical parts and assemblies	
1.9 Manage design work/processes	
1.10 Implement design and produce parts	
1.11 Estimate cost and manage engineering projects	
1.12 Analyze/plan system's control and integration: Recognize the need and analyze/plan the requirement for system's control and integration	
1.13 Provide an integrated educational experience: Provide an integrated educational experience that develops the ability of students to apply pertinent knowledge to solving problems in MET specialty.	
Remain technically current with continuous learning—Remain technically current and adapt to rapidly changing technologies through self-improvement with continuous learning or post-graduate education	
2.1 Engage in lifelong learning: A recognition of the need for, and an ability to engage in lifelong learning	
2.2 Commitment to quality, timeliness, and continuous improvement	
Demonstrate independent thinking, self--management, and functioning effectively in team--oriented and open--ended activities in an industrial environment	
3.1 An ability to function effectively on teams	
Communicate effectively in oral, written, and graphical forms.	
4.1 Communicate effectively through engineering drawings, written reports, or oral presentations	Foundational Studies 10: Express themselves effectively, professionally, and persuasively both orally and in writing.
Perform ethically and professionally in business, industry, and society	
5.1 Understand professional, ethical, social responsibility	
Develop leadership skills and responsibility in their chosen career field	
6.1 An ability to function effectively on teams	
Understand global issues and the impact of technology and engineering solutions on the society and environment	
7.1 A respect for diversity: A respect for diversity and a knowledge of contemporary professional, societal and global issues	

