

Engineering Design and Development

	Measurable Learner Objectives (MLOs)	Show-Me Content	Show-Me Goals	National Standards
A.	Describe the purpose, rationale, distinguishing characteristics of this course, and examples of successful project completion.	CA1, CA4	1.5, 1.6	10:9-12I, 10:9-12J
B.	Create a resume and portfolio that demonstrate academic achievements, activities, and accomplishments (past and current).	CA1, CA4	1.8, 4.8	
C.	Design and maintain a well-organized daily research journal.	CA4, SC7	1.8, 1.10	10:9-12I
D.	Select and use appropriate library resources to obtain desired information.	CA3	1.2, 1.4	3:9-12I, 12:9-12P
E.	Demonstrate computer skills and strategies to find specific information and communicate with others.	CA1, CA3, CA4, CA5	1.4, 1.7, 2.7, 3.2, 3.3	13:9-12J, 17:9-12M, 17:9-12N
F.	Apply written and verbal communication skills (e.g., courtesy, professionalism, listening, speaking, and personal hygiene).	CA1, CA4, CA6	2.6	
G.	Develop a concise problem statement for a research topic and explain key issues using appropriate terminology.	CA1, CA6, SC7	1.1, 1.8, 2.1, 3.1, 3.2, 3.3	2:9-12AA, 8:9-12H, 9:9-12L, 10:9-12I, 11:9-12N
H.	Develop and justify alternate solutions to a research problem.	SC7	1.2, 3.2, 3.3, 3.7, 3.8	2:9-12AA, 6:9-12J, 8:9-12H, 10:9-12I
I.	Demonstrate appropriate presentation skills for engineering design and development topics (e.g., teamwork, voice techniques, written and visual aids, preparation, audience recognition, and multimedia applications).	CA1, CA6	2.1	12:9-12L
J.	Complete an independent research project.	SC7	1.1, 1.2, 4.5	2:9-12EE, 11:9-12Q
K.	Safely develop and analyze a testable prototype.	CA1, CA4, MA3, SC7, H/PE6	2.1, 3.2, 3.3, 3.4, 3.6, 3.7, 3.8, 4.1, 4.7	9:9-12L, 11:9-12O, 11:9-12P, 11:9-12R
L.	Compose a technical research paper.	CA1, CA4	1.8, 2.1	11:9-12R