

Terms	Course Number	Course Name						
		<table><tr><td>I</td><td>Introduced</td></tr><tr><td>D</td><td>Developed</td></tr><tr><td>A</td><td>Applied</td></tr></table>	I	Introduced	D	Developed	A	Applied
I	Introduced							
D	Developed							
A	Applied							
		1. Knowledge Base 1a. Demonstrate understanding of concepts in mathematics 1b. Demonstrate understanding of concepts in natural science 1c. Demonstrate understanding of engineering fundamentals 1d. Demonstrate understanding of specialized engineering knowledge 2. Problem Analysis 2a. Formulate a problem statement 2b. Develop models to solve engineering problems including identifying approximations, assumptions and constraints 2c. Critically evaluate solutions of engineering problems 3. Investigation 3a. Create investigative studies of complex engineering problems 3b. Gather information from relevant sources to address complex engineering problems 3c. Synthesize information from multiple sources to reach to valid conclusions 4. Design 4a. Define design requirements and specifications for complex, open-ended engineering problems 4b. Critically evaluate and compare design choices 4c. Generate and refine potential solutions to complex, open-ended design problems 5. Use of Engineering Tools 5a. Select appropriate engineering tools, considering their limitations 5b. Modify and/or create appropriate engineering tools, identifying their limitations 5c. Use engineering tools appropriately 6. Individual and Team Work 6a. Contribute as an active team member or leader to complete individual tasks 6b. Collaborate with others to complete tasks effectively as a team 7. Communication Skills 7a. Orally present information within the profession and to society at large 7b. Communicate in a written format within the profession and to society at large 7c. Interpret information, including instructions 8. Professionalism 8a. Articulate the roles and responsibilities of the professional engineer in society with reference to the protection of the public and its interest 8b. Describe the importance of codes, standards, best practices, laws, and regulations within engineering 9. Impact of Engineering 9a. Identify the relevance of and uncertainty associated with the different aspects (social, cultural, economic, health, safety, legal, environmental), of an engineering project 9b. Analyze the social, health, safety, and environmental aspects of an engineering project, incorporating sustainability considerations and environmental stewardship in making decisions 10. Ethics & Equity 10a. Identify ethical and unethical behavior in professional situations 10b. Identify how an engineer is accountable to multiple stakeholders in engineering practice 10c. Identify equitable and inequitable situations or behaviors 11. Economics & Project Management 11a. Apply project management techniques and other business practices in engineering projects, with attention to risk and change 11b. Perform economic analyses of engineering projects with attention to uncertainty and limitations 12. Life-long Learning 12a. Identify gaps in their knowledge, skills and abilities 12b. Obtain and evaluate information or training from appropriate sources 12c. Reflect on the use of information or training received						

Technical Electives

List A - Architectural Engineering Technical Electives

[illegible]

List B - Engineering Design Intensive Technical Electives

[illegible]

List C - Engineering Technical Electives

[illegible]

List D - Natural Science Technical Electives

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