

Skill-Builders for Engineering Leaders

Professional Credibility Module

Engineering Innovation Institute or Leadership Institute Faculty
Herbert Wertheim College of Engineering, University of Florida

Contact Hours	1 hour consisting of a 50-minute session
Target Audience	Undergraduate and graduate students
Learning Objectives	Students will be able to: <ol style="list-style-type: none"> 1. Summarize the concept of credibility and identify its foundations. 2. Describe the importance of values and ethics in terms of personal credibility and responsibilities as engineers and engineering leaders. 3. Evaluate key aspects of technical competence and disciplined execution as credibility factors in engineering-based businesses. 4. Assess the consequences of poor engineering.
Session Overview	Credibility is a critical factor of success for engineers and leaders and is a function of many variables, including time. This module explores the concept of professional credibility, key factors that form or impact it, and implications when foundational components of credibility are shaken from an engineering context. The module will consist of instructor-provided topical overviews, and participant discussions related to examples and exercises that will assist in accomplishing the learning objectives.

Session

Key Content	Approach
The concept of credibility and the character component	<ul style="list-style-type: none"> • Overview and video presentation on credibility • Overview key components of credibility
Morals and ethics in engineering	<ul style="list-style-type: none"> • The role of values and beliefs in moral development • The relationship between morals and ethics in engineering • Overview of the concept of the virtuous engineer • Overview of differentiating characteristics between professions vs. occupations • Implications with respect to engineering in terms of values, morals and ethics
The competence component of credibility	<ul style="list-style-type: none"> • The main components of competence and their development • Building technical competence • Building execution capabilities



Key Content	Approach
The standard of care concept in engineering	<ul style="list-style-type: none">• Brief overview about the standard of care doctrine in engineering and why it's important
Effects of ethics related issues in engineering	<ul style="list-style-type: none">• Brief overview about key engineering ethics cases• The concept of brand reputational value• An example involving data selection vs. data falsification ethical issues
Resources Provided <ul style="list-style-type: none">• Module presentation materials• Multiple resource references	Assessments <ul style="list-style-type: none">• Pre and Post-assessment• Case study example for follow-up assignment as needed

