Skill-Builders for Engineering Leaders

Creativity 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 learn: 1. The science behind creativity 2. How the brain takes in new information and processes it to create new ideas and new innovations 3. That we are all born creative and how to work on enhancing their creativity through daily activities
Session Overview	Being creative and innovative is a required skill in today's economy and market place. This module explores the science behind creativity and the process through which our brain creates new ideas. 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 Science Behind Creativity	• Class materials will cover the studies and experiments that are found in literature about the science of creativity • Are we born creative or do we learn to be creative? • Is creativity genetic? The effect of genetics in one's IQ vs creativity
How does our brain generate new ideas?	• Published literature shows how our brain generates new ideas. Five stages of the idea generation process and the most important step to turn creativity into innovation
Convergent Thinking vs Divergent Thinking	• Definitions of convergent thinking vs divergent thinking, why both types of thinking are necessary and important • How to be aware of your divergent thinking and how to enhance it
Resources Provided • Presentation materials • HBR article "Curiosity is as important as intelligence" • HBR article "Human Creativity and Innovation"	Assessments • Pre and Post-assessment

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