Entreprenurial Mindset

The 3C's

CURIOSITY
In a world of accelerating change, today's solutions are often obsolete tomorrow. Since discoveries are made by the curious, we must empower our students to investigate a rapidly changing world with an inquisitive curiosity.

CONNECTIONS
Discoveries, however, are not enough. Information only yields insight when connected with other information. We must teach our students to habitually pursue knowledge and integrate it with their own discoveries to reveal innovative solutions.

CREATING VALUE
Innovative solutions are most meaningful when they create extraordinary value for others. Therefore, students must be champions of value creation. As educators, we must train our students to persistently anticipate and meet the needs of a changing world.

It's not just about skill. It's about a mindset.
Engineers find success and personal fulfillment when they couple their skills with a mindset to create extraordinary value for others. The key is an entrepreneurial mindset.

These specific skills reinforce the development of an entrepreneurial mindset...

Opportunity

- Identify an opportunity
- Investigate the market
- Create a preliminary business model
- Evaluate technical feasibility and societal benefits
- Test concepts quickly via customer engagement
- Assess policy and regulatory issues

Design

- Determine design requirements
- Perform technical design
- Analyze solutions
- Develop new technologies (optional)
- Create a model or prototype
- Validate functions
- Protect intellectual property

Impact

- Communicate an engineering solution
- Communicate an engineering solution in terms of societal benefits
- Validate market interest
- Develop partnerships and build a team
- Identify supply chain distribution methods
- Protect intellectual property

Educational Outcomes

- Engineering Thought and Action
- Collaboration and Communication
- Character

Coupled with

- CURIOSITY: Demonstrate constant curiosity about our changing world
- EXPLORE: Explore a contrarian view of accepted solutions
- CONNECTIONS: Integrate information from many sources to gain insights
- ASSESS AND MANAGE: Assess and manage risk
- CREATING VALUE: Identify unexpected opportunities to create extraordinary value
- PERSIST: Persevere through and learn from failure

Expressed through

- APPLICATION: Apply creative thinking to ambiguous problems
- EXPLORE: Explore systems thinking to complex problems
- EVALUATE: Evaluate technical feasibility and economic drivers
- EXAMINE: Examine societal and individual needs

Form and work in teams

- Form and work in teams
- Understand the motivations and perspectives of others

Convey engineering solutions in economic terms

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- Sustain claims with data and facts

Develop partnerships and build a team

- Identify supply chains, distribution networks
- Protect intellectual property
- Contribute to society as an active citizen

This is the engineer we need. Mindset adds to a strong foundation.

Keen student outcomes can be measured through action and activity.