ENTREPRENEURIAL 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 insatiable curiosity.

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 students to persistently anticipate and meet the needs of a changing world.

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.

ENGINEERING SKILLSET

- Opportunity
  - Identify an opportunity
  - Investigate the market
  - Create a preliminary business model
  - Evaluate technical feasibility
  - 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

- Impact
  - Communicate an engineering solution in economic terms
  - 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

ENTREPRENEURIAL MINDSET

- Curiosity
  - Demonstrate constant curiosity about our changing world
- Connections
  - Integrate information from many sources to gain insight
- Creating Value
  - Identify unexpected opportunities to create extraordinary value
  - Persist through and learn from failure

ENGINEERING THOUGHT AND ACTION

- Applied thinking to ambiguous problems
- Apply systems thinking to complex problems
- Evaluate technical feasibility and economic drivers
- Examine societal and individual needs

COLLABORATION

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

COMMUNICATION

- Convey engineering solutions in economic terms
- Substantiate claims with data and facts

CHARACTER

- Identify personal passions and a plan for professional development
- Discern and pursue ethical practices
- Contribute to society as an active citizen

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