An Inspiring Definition of Engineering

Engineers **Create Solutions** for the **Welfare of Humanity** and the **Needs of Society**

Value Propositions – **Creation**, **Solutions**, **Humanity** and **Society**
Competencies of GCSP directly emanate from the Definition of Engineering!

The 5 key “competencies” of GCSP program are

- **Research/Creativity**: cutting-edge project experience on GC like topic *(Technical Depth)*
- **Multidisciplinarity**: intellectual fusion of academic disciplines including social sciences *(Breadth)*
- **Business/Entrepreneurship**: developing viable business models for implementation *(Viability)*
- **Global/Multicultural**: understanding through global /local) experience *(Planetary Mindset)*
- **Social consciousness**: Outreach & service learning *(Desirability)*

*Engineering*
Attributes of the Engineer of 2020

• Strong analytical skills
• Practical ingenuity
• Creativity
• Communication competencies (oral, written, and cultural)
• Business, management, and leadership skills
• High ethical standards and professionalism
• Agility, resilience, flexibility
Outcomes-based and Flexible --- NOT Prescriptive!

A combined curricular, co-curricular, and extracurricular program.

Coherence and connectivity across five competencies and a Grand Challenge theme.

Program elements are driven by the Power of the Idea and each institution creates its own Unique Realization and Execution.
ABET Criterion 3. Student Outcomes – Two of the required Outcomes

• an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

• an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
Presentations by Panelists on “Successful Implementation of GCSP"

- Brief introduction of the university
- Challenges faced in launching GCSP
- Expectations from the GCSP program for students and faculty mentors
- Supporting, mentoring and assessing the progress of students in achieving the competency