In 2008, The National Academy of Engineering (NAE) identified 14 Grand Challenges for Engineering in the 21st Century. The 14 Grand Challenges represent matters affecting quality of life. These societal impacts, address larger issues related to *security, health, education and the environment*. In March 2018, SMU joined approximately 50 Engineering Schools to support students’ pursuit of building a portfolio of research and related courses and activities focused on a Grand Challenge of their choosing. By taking on a Grand Challenge, students learn to solve problems based on thorough investigation and technical inquiry. Their research is enriched through multi-disciplinary study and by working in industry and the community.

**Students identify a problem related to a Grand Challenge**

Students work closely with SMU faculty to implement a research agenda while an industry mentor assists with identifying appropriate internships, volunteer opportunities and entrepreneurial activities. Upon completion of their Grand Challenge Portfolio, students qualify to graduate with distinction and receive recognition from the National Academy of Engineering.
### 2018-2019 Timeline

**Fall Mentoring**
- 9/7  GCIM Lunch & Learn
- 9/25 GCIM Training
- 10/10 Program Launch
- 11/31 GCIM & Student Mtg. Deadline for student and mentor meeting

**Spring Mentoring**
- 1/20 GCIM Spring Mixer
- 2/28 GCIM & Student Mtg. Deadline for student and mentor meeting
- 4/30 GCIM & Student Mtg. Deadline for student and mentor meeting

### Grand Challenges Events/Activities

#### Speaker Series
- Sep  Health Informatics
- Oct  Cyber Security
- Nov  Environment/Energy

#### Student Seminars
- Sep  Your Grand Challenge Degree Plan
- Oct  What Is Research?
- Nov  Engineering Entrepreneurship

### Be a GCIM
Click here to sign-up to be a Grand Challenges Industry Mentor
- khubbard@smu.edu
- 214-768-3033 with questions.

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### Grand Challenge Industry Mentors

Grand Challenges Industry Mentors, (GCIM), help students develop ideas, set goals, evaluate options and assess outcomes related to their Grand Challenge. Students regularly meet with a Grand Challenges Industry Mentor to design and execute an action plan for mapping research to the real world via work experiences and other activities.

### GCIM Profile
- Resourceful and/or willing to network on behalf of students
- Knowledgeable and/or curious in Grand Challenges Domains (health, security, energy and education)
- Time to meet/talk with students a minimum of three times a semester

### GCIM Role
- Meet with students to brainstorm ideas
- Develop action plans
- Help students develop a Grand Challenge budget
- Connect students to community engagement and/or internship opportunities
- Introduce students to entrepreneurs and experts
- Check-in on project/research progress
- Support students’ career and professional development
  - Review resume
  - Conduct mock interviews
  - Presentation coaching

### GCIM Requirements
- Commit to two to three years of working with a student
- Attend a GCIM Orientation
  - Meet faculty mentor
  - Review portfolio requirements
- Meet with student 3 times a semester (approximately once a month in the fall and spring semesters)
- Write a reference letter

### Resources Available to GCIM
- Mentor training and support
  - Program rules and restrictions
  - Best practices for mentoring and coaching
  - Hart Center staff counsel
- University calendar of events/activities
- Access to meeting rooms (by appt.)