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 complete a Grand Challenge Portfolio**

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**
- 9/06: Grand Challenges Scholars Student Orientation
- 9/17: Grand Challenges Scholars Student Orientation
- 10/01: Deadline to Apply
- 10/10: Program Launch
- 11/31: GCIM & Student Mtg.
  Deadline for student and mentor meeting

**Spring**
- 2/28: GCIM & Student Mtg.
  Deadline for student and mentor meeting
- 4/30: GCIM & Student Mtg.
  Deadline for student and mentor meeting

Grand Challenge Scholars

Grand Challenge Scholars, with the guidance of a faculty research advisor, a Grand Challenges Industry Mentor, and an academic advisor, will design and complete research around one of the Grand Challenges and compile a Grand Challenge Portfolio over the course of their undergraduate career.

GCS Profile
- Scholars must be proactive and disciplined in order to complete the program
- Have scientific curiosity and the want to improve technology for the global community

GCS Requirements to Apply
- Attend a Grand Challenges Orientation Session
- Already completed a minimum of 30 credit hours and have a minimum of 50 credit hours remaining in degree plan
- Student must be in good academic and conduct standing
- Identify a potential research faculty mentor that would be willing to work with you
- Meet with an Academic Advisor to develop a Grand Challenges Degree Plan to fulfill program and major requirements within the scheduled time allotted for graduation
- Submit application by October 1st, 2018

GCS Requirements to Complete Portfolio
- Enroll in KNW 2300, a community engagement class, nine hours in broadening courses, one entrepreneurship class, and one globally focused class
- Attend Grand Challenges seminar series and one entrepreneurship seminar
- Participate in service learning or go abroad for class or work
- One semester internship/co-op at a start-up or start a new venture
- Complete two service learning activities
- Complete Grand Challenge research
- Senior capstone must be related to GC research

Resources Available to GCS
- Advisors
  - Faculty research advisor
  - Grand Challenges Industry Mentor
- Hart Center for Engineering Leadership
  - Knowledgeable staff
  - Networking opportunities
- Student Orientation
- Grand Challenges Steering Committee

Click here to apply to be a Grand Challenges Scholar

khubbard@smu.edu,
214-768-3033 with questions.