Perspectives on Grand Challenges for Engineering

OVERVIEW

Explore global challenges and the impact of engineering on society. Develop an interdisciplinary entrepreneurial mindset to make life more sustainable, healthy, secure, and joyful.

ABOUT THE COURSE

Are you excited about new technologies that impact every facet of our lives? Are you concerned about the many problems, big or small, faced by our communities on planet earth, and want to help? This course is for you!

This course will provide you with opportunities to explore the global challenges facing society, and to learn about how engineers are making an effort to address these challenges. It will serve as a first step to prepare you to become a well rounded Engineer who is ready to tackle these challenges.
You will hear from experts in many engineering fields talking about the National Academy of Engineering’s Grand Challenges for Engineering and their groundbreaking research that is impacting communities of all sizes across the globe. Through this course, you will be equipped with an Entrepreneurial Mindset that complements the technical engineering skill set and drives innovation. The entrepreneurial mindset focuses on exercising your curiosity about the surrounding world in order to identify opportunities, make connections, and create real value for society. This course is also an active introduction to developing an interdisciplinary systems perspective, a new way of thinking and problem solving that is important to address these challenges. Through discussions and activities, you will actively explore how engineering solutions and technologies can be affected by and impact various aspects of society including economics, politics, environment, culture, and human behavior.

Are you ready to make a difference in the world? Do you want to have real impact on society as an engineer? This course is about the global challenges, but it is also about YOU! You will have the chance to identify opportunities that you are passionate about and apply your newly gained skills to develop a futuristic solution that will create value for a community that you care about. You will also identify your path to achieving the necessary competencies to become a successful engineer that makes an impact!
This is a three credit hour course that counts toward the Social-Behavioral Sciences (SB) General Studies requirement at Arizona State University. This course is also a required component of the National Academy of Engineering Grand Challenge Scholars Program at ASU. It is strongly encouraged that you consult with your institution of choice to determine how these credits will be applied to their degree requirements prior to transferring the credit.