

2017 Middle School Summer Engineering Technology Program

Fundamentals of Engineering

Learn more about the field of engineering

- Introduction of engineering topics to future engineers
- Promotion of critical thinking through engineering activities
- Team building and competitive activities

Offered: Week 1: June 12-16; Week 2: June 19-23, and;
Week 3: June 26 – June 30

Coordinator: Ali Zilouchian, Ph.D.

Schedule:

Day	Morning Session	Afternoon Session
Monday	<ul style="list-style-type: none"> • Meet and Greet • Overview of the engineering majors and activities planned for the week • Tour of Green Building 	<ul style="list-style-type: none"> • Lesson on catapult structure and function (Mechanical Engineering) • Activity
Tuesday	<ul style="list-style-type: none"> • Towers • Lesson on geometric shapes in structural engineering (Civil) • Activity 	<ul style="list-style-type: none"> • Mousetrap Cars • Lesson on mechanical functions of a vehicle engine (Mechanical) • Activity
Wednesday	<ul style="list-style-type: none"> • Solar Boats • Lesson on Bernoulli's Principle and how to build a boat (Ocean) • Activity 	<ul style="list-style-type: none"> • Soldering • Discussion on the details and uses of soldering (Electrical) • Activity
Thursday	<ul style="list-style-type: none"> • Robot Arm • Lesson on robotics and how the arm was created (Electrical/Computer) • Activity with the arm 	<ul style="list-style-type: none"> • Helicopters • Lesson on lift and aerodynamics • Activity
Friday	<ul style="list-style-type: none"> • Snap Circuits • Create your favorite Signs with LEDs 	<ul style="list-style-type: none"> • Engineering Olympiad • Presentation of certificates