

Instructor Guide - Technology in Daily Life

Overview:

This module is meant to be integrated into a freshman-level engineering course to introduce students to an entrepreneurial mindset in the context of research. The purpose of this activity is to expose students to the stories of how products that they use every day went from ideas and experiments to physical items for purchase. Students will first view the “EM in Research” video before brainstorming a list of products they use in their daily lives. They will then find reference materials in order to summarize the history of research and innovation which resulted in the creation of that product. This activity can be run as either an individual written assignment or a group presentation.

Objectives:

- Introduce Entrepreneurial Mindset in a research context
- Show connections between research ideas and everyday products

Class time needed: 35-125 minutes

- 10 min. – Watch “EM in Research”
- 25 min. – In-class brainstorming session
- 45-90 min. – Presentations (if Presentation version, dependent on class size)

Instructor Resources:

- Instructor Guide
- Link to “EM in Research” video
- Technology in Daily Life (Written) Handout
- Technology in Daily Life (Presentation) Handout

Class Preparation:

- 1) Read through the Instructor guide

- 2) Read through the Technology in Daily Life handouts.
- 3) Print out the Technology in Daily Life handouts (for either the written assignment or presentation).
- 4) Optional: Pre-assign student groups of 2-3.

Procedure (Written Assignment):

- 1) Watch “EM in Research” video.
- 2) Distribute **Technology in Daily Life (Written)** handout.
- 3) Students will individually brainstorm a list (10 to 15 items) of products/devices/technologies that you they use daily.
- 4) They will then pick one of those items and write a 1-page summary of how that product went from a research idea to a usable product (with references separate from the 1-page limit).

Procedure (Presentation):

- 1) Watch “EM in Research” video.
- 2) Distribute **Technology in Daily Life (Presentation)** handout.
- 3) Have students form groups of 2-3 where they will brainstorm a list (10 to 15 items) of products/devices/technologies that they use daily.
- 4) Students will then pick one of those items and create a 5 min. presentation summarizing how that product went from a research idea to a usable product (with references).
- 5) During the next class period, they will give their presentations in front of the class.