

Exploring Opportunities Activity

Overview:

The purpose of this activity is to have students start to make mental connections between problems they see around them and the research interests of faculty at their university. Students will be asked to take these connections and brainstorm ways that the research could impact those daily problems.

Objectives:

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

Materials:

Notebooks, note-taking devices, on-campus access to scholarly articles

Class time needed: 40-55 minutes

- 10 min. – Finding faculty research interests
- 30-45 min. - Brainstorming

Instructor Resources:

- Instructor Guide
- Exploring Engineering Opportunities Handout

Class Preparation:

- 1) Read through the Instructor guide.
- 2) Read through the Exploring Engineering Opportunities handout.
- 3) Print out the Exploring Engineering Opportunities handouts.
- 4) Optional: Pre-assign student groups of 2-3.

Procedure:

- a) Students individually find some of the research topics that faculty at your university (optionally, from their chosen major) are interested in. This can be found from personal or faculty webpages and their publications through JSTOR or Google Scholar. List the research interests of at least two faculty.
- b) In groups of 2-3, students will make a list of problems in their daily lives (health, daily tasks, everyday annoyances, etc.).
- c) Students will then compare their two lists (faculty interests and daily problems) and brainstorm ways that the research topics could potentially impact those daily topics.
- d) As homework, they will write a short summary (3-4 sentences) of at least 5 different ideas you have brainstormed together as a group for submission. Summaries need to communicate the concept, the problem it intends to solve, and its connection to current research.