



Technical Entrepreneurship Capstone
11 East Packer Avenue
Bethlehem, PA 18015-3085
(610) 758-4824 Fax (610) 758-6131
te.lehigh.edu

Introduction

Lehigh's award-winning **Technical Entrepreneurship Capstone (TE Capstone)** program – formerly Integrated Product Development (IPD) program – gives over 200 juniors, seniors and graduate students in engineering, business and the design arts the opportunity to work in interdisciplinary teams with industry sponsors to design, fabricate and produce new products for a global economy.

Since it was founded in 1994, the TE Capstone program has greatly expanded its opportunities for student entrepreneurs. TE Capstone students have been awarded 11 grants by the **National Collegiate Inventors and Innovators Alliance (NCIIA)** and several teams have exhibited their products at the NCIIA annual conference and have launched successful ventures.

The TE Capstone program has been featured by **U.S News and World Report** in a survey of the nation's best universities, and has been described by the **New York Times** as a model for the "workplace and its cross disciplinary teams." The program won a curriculum innovation award from the **American Society of Mechanical Engineers** and has been featured in **the Journal of the American Society of Engineering** and **Bloomberg BusinessWeek**. It received a grant from the Ewing Marian Kauffman Foundation, an organization that specializes in promoting entrepreneurial programs at all levels of education resulting in Lehigh's entrepreneurial network of students and alumni. In 2006, Professor John B. Ochs was awarded the **NCIIA Olympus Award** for curriculum innovation for the TE Capstone program's support of student innovation. In 2012, the TE Capstone program was recognized by the National; Academy of Engineering as one of the nation's top programs for incorporating real-world experience into engineering education.

Year after year, TE Capstone provides students from across the university the opportunity to work on new product development with our industry sponsors. A partial list of TE Capstone Program Sponsors includes:

- Aesculap
- B.Braun
- Draeger
- Dresser-Rand
- EcoTech Marine
- Gentex
- Ingersoll Rand
- Johnson & Johnson
- St. Luke's
- StarX
- Stryker
- TRK Engineering

These partnerships form the backbone of the TE Capstone program, allowing the establishment of interdisciplinary teams and curricula to give students experiential learning through product and process development.

How to Get Involved

For the 2018 project year, we are offering a total of 35 sponsored partnerships to accommodate the anticipated 200+ students. Typically, each of the teams will have 5 or 6 students. The projects run one calendar year which is divided into three parts:

- Spring 2018: opportunity identification, market research, creative solutions, and technical and financial feasibility
- Optional Summer 2018: at your company (funded separately)
- Fall 2018: building and testing prototypes, models and simulations of both technical and business aspects of the project

Projects begin with a trade show-style Sponsor Fair in January 2018 and conclude with final presentations in early December, with many opportunities in between for both formal and informal interactions.

The primary role of the industry sponsor is strategic, not tactical, however the partnership requires 1-2 hours per week of communication with the student team. The most successful partnerships include the following:

- A **project mentor** who has the time and interest to be focused on the experience.
- A **project focus** that is important enough to the company that resources have been allocated, both human and financial, but not so critical that the year-long process will become burdensome.
- A company that promotes a **culture of innovation and creativity** and seeks employees who embody those values.
- A company that is **within reach** geographically so the student team can “breathe the company air” which helps them to own the project.*

The sponsorship fee provides funding for both the project and program. Roughly 50% is managed directly by the team and 50% by the TE Capstone program staff. If any inventions, improvements, discoveries or other Intellectual Property arise from the project, the sponsor retains rights. In addition, the TE Capstone program requires the sponsoring companies to:

- Refrain from asking students to sign a Confidentiality, NDA or Non-Compete.
- Maintain comprehensive liability and damage insurance of \$1 million.
- Allow the program to make the project description and results of the teamwork public.

For more information please contact:

TE Capstone Director	John B. Ochs	610.758.4593	jbo0@lehigh.edu
TE Capstone Assistant Director	Jodie L. Johnson	610.758.4789	jlk4@lehigh.edu
TE Capstone Outreach Manager	Lauren E. Purdom	610.758.4824	lep215@lehigh.edu

*Arrangements can be made with companies that are outside of the Lehigh Valley.

2018 Sponsorship Timeline

Project Sponsorship Preparation

August/September 2017

- Meet with TE Capstone Directors
- Establish scope of project and designated company participants
- Begin developing project description

September 2017

- Verbal acceptance of TE Capstone Lehigh University Sponsor Agreement Key Terms
- Draft Project Description.
- Meet with TE Capstone staff associate to process paperwork.

October 2017

- Identify project mentors and sponsorship/legal issues, if any
- TE Capstone Directors can meet with legal or executive representatives

November 2017

- Sponsor Agreements and Project Descriptions due
- Submit the company logo in .eps format

December 2017

- Finalize Project Descriptions, project mentors, outstanding paperwork and fees.

Spring 2018: Project Begins

January 2018 – Semester Begins

- Sponsor Fair – meet students
- Meet project team(s) and plan site visit

February 2018

- Weekly calls, emails and briefs

March 2018

- Weekly calls, emails, and reports
- Attend team presentations at Lehigh

April 2018

- Weekly calls, emails and reports

May 2018 – End of Spring Semester

- Attend team presentations at Lehigh

Summer 2018: Optional Internship

June/July/August 2018

- Funding is available from the state for PA companies to support one full-time summer intern. This funding is independent of TE Capstone project funds.

Fall 2018: Final Project Semester

September 2018 – Semester Begins

- Meet with team(s) for semester kickoff
- Weekly calls, emails and reports

October 2018

- Weekly calls, emails and reports
- Attend team presentations at Lehigh

November 2018

- Weekly calls, emails and reports.

December 2018 – End of Project Year

- Attend team presentations at Lehigh

Sponsor Agreement Key Points

- **Signed Agreement:** Agreement must be signed by sponsor before the project may begin
- **Project Results:** Presented only within the confines of the TE Capstone Program (unless otherwise stated. Students are required to submit materials and presentations for academic credit
- **Intellectual Property:** Sponsor retains title to any patents, copyrights and trademarks embodied in (i) products and materials that Sponsor may provide to students; and (ii) all inventions, improvements and/or discoveries arising from a TE Capstone project.
- **Confidentiality:** Sponsor will not ask students to sign any form of a confidentiality agreement; and University will require all students to sign a statement concerning confidentiality
- **Insurance – Sponsor to:** Maintain comprehensive combined general liability and property damage insurance of at least \$1 million per occurrence; name University as additional insured; and supply a Certificate of Insurance to the University before the project may begin
- **Mutual Indemnification:** Each party agrees to indemnify and hold harmless the other party from and against any liability and expenses arising from any negligent or intentional wrongful act or omission or breach of this Agreement
- **Governing Law:** Agreement governed in accordance with Pennsylvania Law