



SENIOR CAPSTONE / INDUSTRY SPONSORSHIP PROGRAM



WENTWORTH
INSTITUTE OF TECHNOLOGY
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

**SUPPORT AND PREPARE THE
NEXT GENERATION OF HIGH TECH
INDUSTRY LEADERS**



**CAPSTONE PROGRAM
AREAS OF FOCUS:**

Biological Engineering

Biomedical Engineering

Civil Engineering

Computer Engineering

Computer Networking

Computer Science

Cybersecurity

Electrical Engineering

Electromechanical Engineering

Engineering (Interdisciplinary)

Mechanical Engineering

Capstone Objectives:

By the conclusion of the Program, students are expected to be able to:

- > Demonstrate proof-of-concept of a design or hypothesis towards a unique solution to a relevant societal problem.
- > Follow an iterative design process, including the testing of alternative designs.
- > Evaluate a design or prototype's effectiveness given project objectives.
- > Evaluate the positive and negative ethical implications of engineering design choices.
- > Demonstrate project planning (tasks, timelines, identification of resources).
- > Search and utilize project-related scholarly literature and find and utilize additional knowledge or skills relevant to the project.
- > Demonstrate familiarity with the relevant business environment (e.g. market research, competition, scheduling, and cost analysis).
- > Demonstrate team-work and collaboration skills.
- > Effectively communicate to a range of audiences regarding the project (e.g. written, oral).

Sample projects from the Senior Design Showcase 2019 include:

AMAZON SAFE – tackles issues present in the modern-day shipping system, including porch theft

BACKSEAT DRIVING – using cameras to detect surrounding vehicles from within a vehicle to avoid crashes

EXTEND-A-LEG - growing prostheses for child amputees ages 5 to 12

FOOTBAM – a cutting edge medical product capable of detecting temperature abnormalities in a diabetic patient's feet

HYDRO-GRID – travel-friendly generator that generates electricity from the current of a river

SAFER CYCLING GPS – using GPS to provide safer routes to cyclists in the city of Boston in real time

SOLAR POWERED DEHUMIDIFIER – takes water from the air and changes it into drinkable water

SENIOR CAPSTONE PROGRAM:

Providing Seniors with a Hands-On, Project-Based Opportunity to Understand and Appreciate Real-World Challenges and Potential Solutions

Wentworth's Senior Capstone Program (the Program) requires all students to take a two-semester capstone project course in their last year. During the first capstone semester, students will apply the knowledge and skills they learned in their first three years at Wentworth toward a proposed project that is approved by their faculty advisor. Each project team typically includes two to four seniors and is supervised by a faculty advisor whose expertise can contribute to the project. Through the Program, students will study, analyze, design, build and test concepts in a field of their choosing. Elements of the design process are considered as well as real-world constraints, such as business/economic and societal factors, marketability, ergonomics, safety, aesthetics and ethics. In the second capstone semester, students continue to work on their project, and they are required to submit a final prototype and to present their results to their faculty advisor, other students, and invited guests.





CORPORATE SPONSORSHIP OPPORTUNITIES:

Partner with Wentworth to Help Educate the Next Generation of Outstanding Engineers and Computer Scientists

Corporations are invited to participate in the Senior Capstone Program through sponsorship of a Senior Capstone project. Companies will be invited to submit a brief proposal to the College of Engineering and Computer Science describing their particular challenges and the project's objectives. Thereafter, relevant faculty advisors will present the project opportunities to their students. Student teams will apply to be considered for a specific sponsored project. Alternatively, companies may elect to sponsor a team and allow the students to identify a particular project. Once the teams have been matched to their project and corporate sponsor, individuals from the companies are encouraged to interact in person and/or in other ways (phone, email, skype, etc.) with their project teams throughout the duration of the Program to help guide the project and provide feedback.

Benefits to Corporate Sponsors:

- > Exposure to the creative thinking and efforts of top-notch engineering and computer science students who represent a potential pool of future employees;
- > Low-cost, low-risk investigation of concepts and challenges that have yet to be solved;
- > Corporate branding/exposure within the Wentworth community and beyond;
- > Professional development opportunities for employees who work with project teams; and
- > Opportunities to network with Wentworth students, faculty, and other industry leaders.

► **Support the Next Generation of High Tech Leaders:**

Your tax-deductible gift of \$5,000 per project will help bridge the gap between the education gained by our exceptional students and the professional experience that will help them to become outstanding engineers and computer scientists. Your company's sponsorship will cover the costs of purchasing project materials, building and testing prototypes, and other project-related expenses.

Should the company provide equipment, materials, and facilities in support of the project, Wentworth will negotiate with the company the value of such in-kind support, as needed by the company. The sponsorship is not to be considered a contract for deliverables, as the participants are undergraduate students who are participating in an educational program. However, it is understood that student teams may be exposed to sensitive and/or confidential material and/or data. In these situations, agreements between the parties will be written and executed prior to the initiation of the project. In addition, any Intellectual Property issues shall fall under the auspices of Wentworth's Intellectual Property Policy.

With a sponsorship, you and your company will be invited to the **project team presentations** held during the conclusion of the students' senior year. Students will also present their sponsors with a written report that summarizes their efforts and the results of their work. Participating companies will also be invited to the annual **Senior Design Showcase** (held in August), where seniors demonstrate their projects, as well as a special reception for student teams and their sponsors (held in the spring). Corporate sponsors will also be included in the annual **President's Report Donor Roll** as a member of the President's Society, acknowledged at all relevant events, and may be recognized in other written materials such as the Alumni Magazine, alumni e-newsletter, or Wentworth website (www.wit.edu).

To submit a proposal or for more information on sponsorship opportunities, please contact Lori Friedman, Executive Director of Corporate and Foundation Relations and Strategic Industry Engagement, at 617-989-4233 or friedmanl@wit.edu.



FOR MORE INFORMATION PLEASE CONTACT:

LORI FRIEDMAN

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