A Master’s Program in Entrepreneurship, Technology, & Innovation for STEM Students

The ESTEEM Graduate Program is an 11-month master of science degree program at the University of Notre Dame that equips students from technical backgrounds with the skills and experience to launch new businesses. Over the course of a year, students are immersed in an entrepreneurial sandbox, where they get their hands dirty with innovation and launching new ventures through a cutting-edge curriculum, a capstone commercialization thesis for an emerging technology, and outstanding out-of-the-classroom experiences.
Notre Dame’s Master’s Program in Entrepreneurship, Technology, & Innovation (ESTEEM) is an 11-month professional master’s degree program with an emphasis on the business of innovation. Developed in collaboration with the College of Science, College of Engineering, and the Mendoza College of Business, students gain a unique combination of technical expertise and business acumen that allows them to master the modern marketplace and become leading innovators among the world’s most successful start-ups and corporations, as both entrepreneurs and intrapreneurs.

ESTEEM emphasizes the action of entrepreneurship, not just the study of it, with a combination of an entrepreneurship curriculum, a capstone commercialization thesis, and out-of-the-classroom experiences. Through a rigorous academic experience, exposure to real-life business ventures, and exceptional mentorship, ESTEEM students find their technical skills impactful and marketable in a rapidly changing economy. Students are launched into career tracks outside of narrow technical roles, taking positions of leadership at the intersection of business and innovation.

In mid-2017, ESTEEM became a part of the University’s IDEA Center. Tasked with Innovation, De-risking and Enterprise Acceleration, the IDEA Center is the fundamental resource for all commercialization and entrepreneurial activities at Notre Dame. It provides the necessary space, services and expertise for idea development, commercialization, business formation, prototyping, entrepreneurial education, and student entrepreneurial efforts.

The ESTEEM Graduate Program understands that its students want a curriculum that allows them to continue to explore their technical interests, while also gaining new skills in business. With business classes taught through a lens of entrepreneurship and innovation, the program gives students actionable skills that they then apply to their capstone thesis. In addition, students take a technical elective each semester that allows them to further sharpen their technical skills, while also gaining relevant knowledge for their capstone thesis. Below is a sampling of ESTEEM classes:

- Business Model Canvas
- Design Entrepreneurship
- Financial Modeling & Business Valuation
- Technical Marketing
- Funding New Ventures
- Product Development
- Launch Strategy
- Accounting and Finance
- Business Law
- Social Entrepreneurship
- Technology & Ethics
- Technical Elective

Entrepreneurship is a learn-by-doing discipline. Through a capstone thesis project, students immediately translate classroom learning into real go-to-market commercialization strategies. Innovation and entrepreneurship come to life in a powerful way through this unique program element, allowing students to experience the stages of thinking through bringing a real technology to market. The capstone thesis includes:

- Deep diving into the technology, becoming knowledgeable about the subject matter
- Exploring a range of potential market applications
- Validating customer segments and value propositions
- Researching the intellectual property landscape
- Exploring barriers to commercialization
- Developing comprehensive financial models
- Synthesizing all of the above into a comprehensive business plan

ESTEEM capstone thesis projects come from three different sources:

- **University Research**: Emerging technologies from the labs and faculty at the University of Notre Dame. Examples include improved cancer immunotherapies, fluorescent image-guided surgery, and the first preventative solution for allergic reactions.
- **Industry Sponsors**: Innovative intellectual property coming from businesses ranging from start-ups to multi-billion dollar organizations from around the globe. Examples include development of a homemade explosives detection kit, investigating markets for a low force friction welding technique, and the use of distributed ledger technology for use in cross border payments by individuals and small businesses.
- **Founder’s Ideas**: Ideas brought in by students themselves which must pass a technical review and show commercial promise. Examples include creating a more efficient, effective, and affordable method for detecting head injury and developing a digital content management tool that leverages machine learning.
The ESTEEM Graduate Program enables students to discover, define, develop, and launch a lifelong engagement with the intersection of innovation, entrepreneurship, and their own personal “why”. The program builds the most realistic entrepreneurial sandbox in higher education in which students can come and get their hands dirty with entrepreneurship. Students will create, design, build, fail, pivot, iterate, and perhaps even launch and scale, all with a focus on fixing things that matter.

...culture

ESTEEM cultivates diverse, dynamic, and small teams of both staff and students who can operate and thrive in a rapid, fast-paced environment, always driven by an attitude of “Let’s just try it!” Whether it is driving a restored bus across the country, Start-Up Weekend, or the ESTEEM Legacy Project, the attitude around the program is to default to action.

...community

ESTEEM develops deep, individual relationships between students, faculty, staff, alumni and the broader Notre Dame family. With approximately 45 students and five staff members, each cohort becomes very tightly knit, producing bonds that extend far past graduation day.

...confidence

ESTEEM fosters a belief in oneself as a change agent, an entrepreneur, an intrapreneur, and a catalyst for impact. Students leave the program thinking differently, seeing the world full of opportunities that they now have the skills to seize.

...experiences

ESTEEM delivers a world-class curriculum and out-of-the-building learning opportunities that channel the resources, infrastructure, and facilities of a world-renowned university into a hands-on, personal educational experience for every student. Annual class trips to Silicon Valley, Chicago, Indianapolis, combined with outstanding guest lectures, fast-paced classes, and the unique capstone thesis give our students a unique experience to leverage after graduation.

...expectations

ESTEEM builds diverse cohorts of gifted students with backgrounds in engineering, science, math, economics, the social sciences, and design, all of whom aspire to think big, deliver impact, and be comfortable in the boardroom, as well as in the lab or on the bench. Students come from dozens of universities, including Notre Dame, Stanford, Columbia, Vanderbilt, Carnegie Mellon, and the U.S. Naval Academy, a multitude of countries, and every STEM background, all enriching the cohort in their own way.

...exposure

ESTEEM focuses on networking and professional development through the formulation of a personal launch strategy, a lifelong engagement with possibly the most powerful, loyal, and helpful alumni base in the world, the wider Notre Dame family, and the global community of innovators and entrepreneurs. Students are given face time with top-tier executives from multi-billion dollar companies, serial entrepreneurs, and investors in intimate settings made possible through the widespread Notre Dame alumni network.
The world is changing at a faster rate than ever before and companies are challenged with constantly developing new products and services to keep up. Markets are being disrupted. Technological advances are staggering. It is an exciting age of innovation and economic growth and our graduates are preparing to be leaders and drivers of change.

<table>
<thead>
<tr>
<th>UNIVERSITY OF NOTRE DAME</th>
<th>ESTEEM GRADUATE PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOP 5</strong></td>
<td><strong>270+</strong></td>
</tr>
<tr>
<td>Nationally in Alumni</td>
<td>Program Alumnae</td>
</tr>
<tr>
<td>Giving / Satisfaction</td>
<td></td>
</tr>
<tr>
<td>(US News)</td>
<td></td>
</tr>
<tr>
<td><strong>TOP 5</strong></td>
<td><strong>86%</strong></td>
</tr>
<tr>
<td>Mendoza College of Business: Undergraduate Business School</td>
<td>Placement Rate at graduation</td>
</tr>
<tr>
<td></td>
<td>Class of 2018</td>
</tr>
<tr>
<td><strong>TOP 20</strong></td>
<td><strong>$22.7K</strong></td>
</tr>
<tr>
<td>University in National Ranking</td>
<td>Average Scholarship</td>
</tr>
<tr>
<td>(US News, 2018)</td>
<td>(Up 5x in the last 5 years)</td>
</tr>
<tr>
<td><strong>#1</strong></td>
<td><strong>27</strong></td>
</tr>
<tr>
<td>Widely regarded as the top Catholic University in the world</td>
<td>Undergraduate Institutions Represented</td>
</tr>
<tr>
<td></td>
<td>Class of 2019</td>
</tr>
</tbody>
</table>