**TECHNICAL SKILL SET Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 301</td>
<td>Creativity and Systematic Innovation Methods (3 credits)</td>
<td>Creativity methods, anthropological research, painstorming, bisociation, the Kano model, the trimming technique, nonlinear design, parameter analysis, decomposition, DeBono’s Six Hats technique, biomimicry, lateral benchmarking, Blue Ocean Strategy, the art of tinkering and other innovation methods. Hands-on labs, individual and team projects.</td>
</tr>
<tr>
<td>TE 302</td>
<td>Methods in Visual Thinking (2 credits)</td>
<td>Visualization techniques, visual thinking and envisioning information as taught by Edward Tufte and others, multimedia tools and methods. Appropriate use of technology as applied to new product development (no programming required).</td>
</tr>
<tr>
<td>TE 303</td>
<td>Methods in Prototyping, Modeling and Testing (2 credits)</td>
<td>Generation of mock-ups and looks-like prototypes, electro-mechanical-optical bread-boards design, fabricate, build and test multiple generations of prototypes, computer modeling methods, shop methods, testing, sensors and data collection.</td>
</tr>
<tr>
<td>TE 307</td>
<td>Intellectual Property Creation and Management (2 credits)</td>
<td>Intellectual property issues: confidentiality, nondisclosure, agreement not to compete, founders agreements, patents, copyrights, trademarks, trade secrets both domestic and international.</td>
</tr>
</tbody>
</table>

**PRODUCT DEVELOPMENT & ENTREPRENEURIAL MINDSET Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 401</td>
<td>Integrated Product Development (IPD) Process - 1 (3 credits)</td>
<td>An integrated and interdisciplinary approach to engineering design, concurrent engineering, design for manufacturing, industrial design and the business of new product development. Topics include design methods, philosophy and practice, the role of modeling and simulation, decision making, risk, cost, material and manufacturing process selection, platform and modular design, mass customization, quality, planning and scheduling, business issues, teamwork, group dynamics, creativity and innovation. Case studies and semester-long team projects.</td>
</tr>
<tr>
<td>TE 402</td>
<td>Integrated Product Development (IPD) Process - 2 (3 credits)</td>
<td>Continuation of TE 401, the parallel development of the product, the development of the marketing and manufacturing system, manufacturing and marketing launch, sales, service and customer support. Case studies and semester-long team projects. Prerequisites: TE 401.</td>
</tr>
<tr>
<td>TE 403</td>
<td>Entrepreneurial Startup Process - 1 (3 credits)</td>
<td>Key issues surrounding company startups, including feasibility analysis, business model development and evaluation, formation of new venture teams, financial forecasts, sources of financing. Readings, financial templates, live case studies and guest entrepreneurs.</td>
</tr>
<tr>
<td>TE 404</td>
<td>Entrepreneurial Startup Process - 2 (3 credits)</td>
<td>Continuation of TE 403, integration of key business components to form and launch your venture: industry analysis, marketing plan and sales strategy; mobilization of the new venture team; operations, including space, legal and insurance conspiration; and financial management. Selected topics related to respective venture types (i.e., social entrepreneurship, family business, franchising, immigrant entrepreneurs). Lectures, workshops and guest entrepreneurs. Prerequisites: TE 403.</td>
</tr>
<tr>
<td>TE 450</td>
<td>Intrapreneurship - 1 (3 credits)</td>
<td>Intrapreneurship is the process of developing and commercializing innovative new products and business models within established companies. The intrapreneur must have some of the talents of an entrepreneur but requires additional skill sets to leverage the existing ecosystem within their company. This course will examine the skills required to be a successful intrapreneur using case studies describing successful intrapreneurs and the companies that have supported/benefitted from them. This course will be valuable for anyone wanting to promote innovation and growth within their company.</td>
</tr>
</tbody>
</table>

For more information: lehigh.edu/innovate
LEARN TO INNOVATE
Develop your entrepreneurship and intrapreneurship skills

GRADUATE COURSES FOR ENGINEERS, SCIENTISTS AND MANAGERS

SPRING 2018 Schedule

Spring 2018
TE 407
Intellectual Property (IP) Creation and Management (2 credits)

Spring 2018
TE 450
Intrapreneurship - 1 (3 credits)

Spring 2018
TE 301
Creativity and Systematic Innovation Methods (3 credits)

FALL 2018 and SPRING 2019 Schedule

Fall 2018
TE 407
Intellectual Property (IP) Creation and Management (2 credits)

Fall 2018
TE 403
Entrepreneurial Start-Up Process - 1 (3 credits)

Fall 2018
TE 402
Integrated Product Development (IPD) Process - 1 (3 credits)

Fall 2018
TE 302
Methods in Visual Thinking (2 credits)

Fall 2018
TE 404
Entrepreneurial Start-Up Process - 2 (3 credits)

Spring 2019
TE 404
Entrepreneurial Start-Up Process - 2 (3 credits)

Spring 2019
TE 402
Integrated Product Development (IPD) Process - 2 (3 credits)

Spring 2019
TE 303
Methods in Prototyping, Modeling and Testing (2 credits)

Special arrangements for companies with 10 or more students available. Call for details.

NEXT STEPS

1. **Apply online:** [www.lehigh.edu/innovate](http://www.lehigh.edu/innovate)
   - Click on APPLY NOW (Currently a Lehigh graduate student? Just follow normal registration process.)
   - Create an account with personal information
   - Select Masters of Engineering in Technical Entrepreneurship
   - Select part-time
   - No GRE’s are required
   - Provide transcripts and two recommendations

2. ** Speak with the TE Outreach Manager:**
   Contact Lauren Purdom, TE Outreach Manager at lep215@lehigh.edu or (610) 758-4824.

3. **Visit:** Come to campus to experience the dedicated facilities, faculty and curriculum and meet with current students. Contact Lauren Purdom to arrange your personal visit.

An intrapreneur is a “person who focuses on innovation and creativity and who transforms a dream or an idea into a profitable venture, by operating within the organizational environment.”

– Gifford Pinchot, 1985

“Lehigh’s M.Eng. in TE program offers students a terrific platform for learning. The investment I made in this degree has already paid valuable career dividends.”

– Fred Carter ‘14G, ASI Lead Engineer, DMG MORI USA

Make Innovation Part of Everyone’s Job - How Cisco, GE, Adobe and Intuit do Intrapreneurship

– Hans Balmaekers, Intrapreneurship Conference, June 2017

“One major takeaway from the TE program is the importance - and the universality - of the entrepreneurial process. Products vary, but the process applies.”

– Tony Bagdon ‘14G, Technical Manager, Industry Dive

For more information: [lehigh.edu/innovate](http://lehigh.edu/innovate)