Concentration in Technology Innovation

Concentration requirements:
1. A sequence of four courses (16 credits) consisting of two required courses (8 credits) listed below and two courses (8 credits) chosen from the list of additional courses.

   **Required courses:**
   - QST SI 480 – Business of Technology Innovation - 4 cr (offered both semesters, but recommended that it be taken in junior year)
   - QST SI 482 – Strategy for Technology Based Firms - 4 cr (pre-requisite: SMG SI 480)

   **Additional Courses:** (Choose two courses – 8 credits)
   - ENG BE 428 – Device and Diagnostic Design – 4 credits
   - ENG EK 280 – Technology, Society and Policy – 4 credits (not currently offered; available for transfer credit)
   - ENG EK 409 – Engineering Economy – 4 credits
   - ENG ME 502** – Invention: Technology Creation, Protection, and Commercialization – 4 credits ENG
   - ME 517 – Product Development – 4 credits
   - ENG ME 525 – Technology Ventures – 4 credits
   - ENG ME 583 – Product Management – 4 credits
   - QST SI 444* – Entrepreneurship – 4 credits (F/S)
   - QST SI 445* – Managing the Growing Enterprise – 4 credits (F/S)
   - QST SI 451* – Organizing for Design & Innovation – 4 credits (S)
   - QST SI 453* – Strategies for Environmental Sustainability – 4 credits (S)
   - QST SI 456 – Social Entrepreneurship – 4 credits
   - QST SI 464** - Intellectual Property Strategies – 4 credits (pre-requisite: SMG SI 422 or SMG SI 480)
   - QST SI 471* – International Entrepreneurship – 4 credits (S)
   - QST SI 475* --Global Management Experience – 4 credits
   - CAS CS 491* – BU Spark! Innovation Ventures – 4 credits (F)
   - CAS CS 491* -- San Francisco Experience – 4 credits – satisfies the experience only (overlaps with SI 480)

   **Notes:**
   - * QST SI 444, 445,451, 453, 456, 471, 475; CAS CS 299, and 491 will satisfy the General Education Elective requirement. They cannot be used to satisfy a Technical/Advanced/Professional Elective.
   - ** Students cannot receive credit for both ENG ME 502 and QST SI 464

   Students should check availability of courses each semester; not all courses are offered every semester.

2. **Experiential Component Requirement:** Completion of a well-defined experiential component in the technology innovation area. A laboratory research, industrial internship, senior design project or directed study can satisfy this requirement. This requirement must be approved by the Concentration Coordinator and the Experiential Component Approval form must be submitted to the Undergraduate Records Office. After its completion, a report of the experiential component must also be submitted for approval (see “experiential reporting requirements,” below.)  

   **Note:** The Experiential Component requires completion of SI 480 and approval prior to doing the experience.

Experiential Component
The experiential component is required for the TIC that is intended to exercise and apply learnings from TIC curriculum and is ideally performed after completing the 4-course sequence specified above. However, this is not always possible. Minimally, students must complete SI 480 to be eligible to undertake an approved experience. Options for experiences include senior design, internships, experiential courses, approved weekend entrepreneurial events, TISP, and others by approval. Details on each follow.

Important Dates
• Concentration declaration
  o May 1, Junior year: (ensures that you receive TIC notifications)
  o October 1, Senior year (final deadline to declare concentration)
• Experience – senior design
  o October 15: experiential proposal due (ECE, BME)
  o Dec 15: experiential proposal due (ME)
  o April 1: draft report due (to TIC Coordinator)
  o April 15: final report due
• Experience – internships
  o May 1: prior to internship: experiential proposal due
  o Sept 15: draft report due (to TIC Coordinator)
  o Sept 30: final report due
• Other, including TISP
  o Prior to event: experiential proposal due
  o Within 2 weeks of completion of event and before April 1: draft report due
  o Within 4 weeks of completion of event and before April 15: final report due

For International Students
International students can use CPT in approved internships for the experience under the TIC. The process for approval is:
1. Declare concentration
2. Complete SI 480
3. Identify internships opportunity
4. Write and submit experiential proposal
5. Submit to ENG Undergraduate Records
6. When approved, submit to ISSO
Experiential Component Requirements

Requirements common for all experiences
1. Submit an experiential proposal identifying what aspects of the experiential rubric will be tackled
2. For projects involving multiple TIC students, each student should enumerate what unique contribution from the rubrics will be tackled.
3. Do the background work supporting the proposed work (e.g., collecting data for customer or market needs assessment, etc.)
4. Produce the report draft form prior to the due date.
5. Produce a final report based on the feedback from the draft report review
6. [Senior Design] Integrate the pitch into Sr. Design materials for the group effort (reports and presentation)

TISP-specific requirements
1. Submit experiential proposal describing how you plan to use SI 480 ideas in TISP experience.
2. Keep a log of how TIC content used during TISP
3. Produce the report draft form prior to the due date.
4. Produce a final report based on the feedback from the draft report review

Startup weekend/hackathon/events-specific requirements
1. Submit an experiential proposal identifying what aspects of the experiential rubric are anticipated to be tackled and why the event is relevant to the TIC
2. Participate in the event
3. Capture artifacts from the event (PPT, photos, sketches, mockups, etc.) and organize these into the draft report prior to the due date
4. Produce a final report based on the feedback from the draft report review

Reporting Requirements (all)
The TIC experience reporting is comprised of a PowerPoint or equivalent presentation and oral delivery recorded as video and submitted electronically. Instructions and best practices for recording video will be found on the TIC Piazza site. Requirements for reporting:

1. Presentation deck of a minimum of 10 slides and a maximum of 20 slides
2. Presentations should not be a reiteration of a technical project, but should focus on elements selected from the rubric
3. Video recording limited to 5 minutes.
4. A draft report is required which will be reviewed against the rubric
5. Final report, including the video recording, is due based on feedback from draft review