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**Proposal to the Senate Educational Policy Committee**

**PROPOSAL TITLE:** Establish a Bachelor of Science in Innovation, Leadership and Engineering Entrepreneurship (BS in ILEE) degree in the College of Engineering.

**SPONSOR:** Andrew C. Singer, Professor of Electrical and Computer Engineering; Director, Technology Entrepreneur Center; Special Assistant to the Dean for Innovation and Entrepreneurship. 217-244-9263, acsinger@illinois.edu.

**COLLEGE CONTACT:** Kevin Pitts, Associate Dean for Undergraduate Programs and Professor of Physics, College of Engineering, 217-333-3946, kpitts@illinois.edu.

**BRIEF DESCRIPTION:** The College of Engineering proposes a Bachelor of Science in Innovation, Leadership and Engineering Entrepreneurship (BS in ILEE) degree. The degree program is intended for engineering students to better understand the innovative processes involved in identifying problems and creating, developing, and leading efforts to provide engineering solutions. The curriculum is based on a sound disciplinary engineering technical core with additional aspects of problem identification and innovation, and complex multidisciplinary engineering project management and leadership.

**PROGRAM DETAILS:**

- The BS in ILEE highlights will include:
  - a required 1 credit hour *Introduction to ILEE* course.
  - a set of required technical core courses (44 hours), which includes 30 hours from ILEE technical core courses and 14 hours from one additional department within the College of Engineering (“department of concentration”), see Appendix B.
  - a technical elective set of courses for all students in the major (27 hours), which includes 19 hours from ILEE approved technical elective courses and 8 hours from the COE department of concentration approved technical courses, see Appendix C.
  - a required set of project-based experiential credits (4 to 16 hours), approved, supervised and coordinated by a University faculty member (details below), similar to other programs on campus, such as Formula One projects in the MechSE Department in the College of Engineering, and to the manner in which independent study projects are supervised in the College of Engineering.

- Core faculty of the ILEE program, current TEC instructors, and adjunct professors with relevant industry experience will teach courses in the BS in ILEE (see below for more details).
- The administration of the BS in ILEE will be housed within the TEC administrative offices in the College of Engineering, currently located in both the Coordinated Science Laboratory and Grainger Library. Students working on the BS in ILEE degree will have access to the Grainger Engineering Library Innovation space (Appendix D), the new campus-wide Design Center building (under design), and existing College of Engineering build and maker spaces.

#### LOGISTICS:

- The BS in ILEE degree is a standalone BS degree. However, in the initial phase (at least the first two years), its enrollment will be restricted to students concurrently enrolled (in good standing, defined by the department) in another disciplinary degree program within the College of Engineering (including Chemical Engineering). For students admitted during this initial phase, admission into the BS in ILEE degree program will therefore be as a second, or dual degree. This selective admission is similar to other honors-type programs on campus. The home department of their primary degree will (most likely) correspond to their department of concentration in the BS in ILEE degree.
- During this initial phase, students may apply to the BS in ILEE degree program anytime after their first semester of their freshman year in a disciplinary degree program in the College of Engineering.
- During this initial phase, students must be enrolled, and remain in good standing, in a College of Engineering (including Chemical Engineering) degree program to be admitted to and remain in the BS in ILEE degree. The ILEE Curriculum Coordinator will check the status of the admitted students on a semester basis.
- The College of Engineering administrative staff will handle the application process during the initial phase (at least the first two years of the degree program).
- During this initial phase, students who are accepted into the BS in ILEE degree program must submit proper documentation for official declaration of dual degree status to the College of Engineering Undergraduate Admissions Office.
- During this initial phase, students will be advised by both staff academic advisor(s) from the BS in ILEE degree program as well as staff academic advisors in their home departments.

#### JUSTIFICATION:

1. **Why do we need this new degree?** The demand for courses related to innovation, leadership, and Engineering Entrepreneurship has grown significantly

over the past 10 years, both on our campus and other universities across the country. The Technology Entrepreneur Center (TEC) in the College of Engineering has been in operation since 2000 and has seen strong, steady participation levels over the last 15 years and in the past 5 years has seen participation levels in its courses and activities double. Currently, engineering students interested in taking leadership, innovation, and Engineering Entrepreneurship courses must fit them into their academic schedules as free electives, with essentially no recognition by our college or our campus. On average, 1,000 students take TEC courses each year. Further, students who are involved in innovative research projects, including those that develop into technology startup companies, often work on these projects in their spare time, rather than as a central activity within their existing curricula. These students are often some of the most passionate, successful students, whose stories are celebrated throughout our College, Campus, and even receive national attention. Examples of such students include Patrick Walsh of Green Light Planet, Scott Daigle and Marissa Siebel of IntelliWheels, and Supriya Hobbs and Jana Eaves of Miss Possible. As an institution, we have taken great pride in these students, celebrating them on our news media, in commencement addresses, and across our alumni publications, yet we have relegated their deepest passions to satellite/extra-curricular activities, outside of the existing curricula at Illinois. We envision that students would be able to work with faculty members within the College and receive not only guidance and mentorship, but also course credit for such activities using a project-based credit-bearing course model that has worked well within Mechanical Engineering (more detail is provided in the 5<sup>th</sup> question below) as well as across our College through independent study and undergraduate research projects. With a BS in ILEE degree in place, not only would the courses have the full faith and credibility of a College of Engineering disciplinary degree program, but students could also apply these project-based course credits to a bachelor's degree. As mentioned previously and elsewhere in the BS in ILEE degree proposal, many of the students who come through the College of Engineering already commit the time associated with such a degree; but to date, the University and the College of Engineering has neither formally recognized, nor rewarded these students for their achievements through a degree program. Regardless of whether or not students who participate in these courses end up completing all of the requirements of the BS in ILEE degree program, formalizing these courses as part of a unique degree program at Illinois adds credibility and stature to the courses and programs that the students undertake, while placing these activities squarely within the heart of the disciplinary experiences of students in the College of Engineering.

Moreover, with such a degree program in place, there would be a more clear and formal way in which to organize faculty involvement and supervision of students actively engaged in project-based research, many of which emanate from the courses and programs already run through the TEC. Additionally, the structure of a degree program within the College would enable a more formal and rigorous means for student supervision, mentoring and tracking.

- 2. How is this degree different from other degrees/offerings on campus and other universities?** The proposed degree structure is neither unique nor without precedent. It is modeled after the successful Engineering Public Policy (EPP) degree program at Carnegie Mellon University (EPP undergraduate BS degree), which is offered with each of the five traditional engineering departments, along with their Computer Science Department on campus. This program has a 20-year history and is widely accepted as a successful addition to their College of Engineering offerings. Currently, we are not aware of any other BS degrees that focus on innovation and leadership in Engineering Entrepreneurship in the nation; and as such, Illinois has a unique opportunity to be a leader in this type of undergraduate education.

There are three other examples of non-departmental degrees held on our campus at Illinois: Major in Agriculture, Leadership and Science Ed (ACES); Bachelors of Science in Health (AHS); LAS Independent Plan of Study (IPS). While there are opportunities for Engineering students to acquire leadership, innovation, and Engineering Entrepreneurship skills, there is no similar degree program like the BS in ILEE degree on campus that offers formal, transcriptable leadership and innovation skills for engineering students.

As global leaders in research, innovation and engineering education, our goal is to establish a program that other engineering colleges will aspire to. Our tremendous strengths in these areas make Illinois the ideal school to lead the development of a new program. As the focus of secondary education continues to change, we feel strongly that we can help define the new directions for engineering and technology. It is clear that our students are the best globally in their technical education; this new program will provide motivated students with the opportunity to gain, build, and grow innovation and leadership skills to prepare them to become leaders in many fields. We will consider adding a campus minor to the program once it is established.

- 3. Is this degree academically rigorous enough?** Yes. The BS in ILEE degree inherits the academic rigor of the College of Engineering's disciplinary bachelor's degrees, as the core requirements of the ILEE degree include a concentration in a disciplinary degree program within the College of Engineering. As a stand-alone degree, the BS in ILEE degree has the same structure, technical depth, and breadth of the existing COE departmental BS degrees and satisfies all of the requirements of a standalone degree in the department of concentration. The innovation, leadership, and faculty-supervised experiential learning components of the ILEE degree provide the students with the solid academic foundation to take what they have learned in their primary engineering discipline and either bring it to market through a new venture or within an existing entity.

4. **Will students be willing to stay on campus an extra semester or two, and pay tuition, to complete the degree?** As a standalone degree, this question is not relevant. However, during the initial phase, in which the BS in ILEE degree will be offered as a dual-degree for currently enrolled students, the experience over the past 15 years in the TEC is that, on average, 1,000 students have taken TEC courses and fit them into their rigorous academic schedules, many graduating on time, or willing to spend an additional semester or year to incorporate these into their overall academic program. Students enrolled in the TEC courses have rarely complained that existing TEC courses were a burden, either in time or financially. However, students have noted that if the TEC courses were part of an existing degree structure, they would have been able to take more of them. Additionally, many College of Engineering students come to Illinois with two or more semesters of advanced credit, which would make such a degree program achievable without additional years of tuition. Many of the students who have taken advantage of the College of Engineering's TEC course and program offerings not only would satisfy the proposed ILEE degree requirements in addition to the degree requirements of their home department, but also have historically graduated within 4 years.

Three years ago, we started a data-tracking course enrollment project, collecting the data that was available for courses where TEC held the Instructional Units.

Of the data that we have:

2,796 took TEC courses\*

588 (~21%) took 2 or more TEC courses

234 (~8%) took 3 or more TEC courses

121 (~4%) took 4 or more TEC courses

\*Note: The data doesn't reflect non-TEC listed innovation, leadership, and Engineering Entrepreneurship courses that are often taken, in conjunction with TEC courses, to obtain a TEC certificate. Students are seeking a degree that explicitly allows them to build, improve upon, and challenge their engineering innovation and leadership skills in Engineering at Illinois. That the College of Engineering would place its confidence in the ILEE curriculum gives an enhanced credibility to the courses and experiences of the students involved, regardless of whether or not they complete the full degree. For the proposed BS in ILEE degree, students who take some, but not all of the requirements for the ILEE degree could readily fall back to the existing TEC certificates or the Leadership Center's Leadership Certificate. However, at the present time, these undergraduate certificates are not transcriptable. As such, the BS in ILEE degree would allow a student to have transcriptable documentation of putting significant effort to engineering innovation and leadership during their residential campus experience at Illinois.

5. **How will you evaluate and give credit for the project-based courses?** It is anticipated that students in the BS in ILEE program will complete 4 to 16 hours of project-based credit (outside of the typical classroom structure). Each semester, a student could earn up to four credit hours per faculty member of such project-

based credits. The following strategy will be used for these project-based credits: The student would identify a project of interest and meet with a faculty member to discuss the project. If they agree to move forward with obtaining course credit for the project, the student or faculty member would contact the ILEE Curriculum Coordinator. The student and faculty member would complete a Memorandum of Agreement (MOA), a contractual agreement between the student and faculty member regarding the metrics and criteria for evaluation of the student, based on an agreed-upon set of deliverables, the number of hours to be spent on average each week, the meeting frequency and duration, and the number of credits for the course. The MOA would be emailed to the ILEE Curriculum Coordinator, who would review it for completeness and submit it to an ILEE clinical faculty member to approve the scope and content of the project for consistency and uniformity with other programs in the College. Once the appropriate approvals are in place, the student would register for the appropriate course.

Both midway and at the end of the semester, the ILEE Curriculum Coordinator would obtain a brief report on the student's progress towards the agreed upon commitment (from the signed MOA) between the faculty member and student and note it in the student file. At the end of the semester, the faculty member would evaluate the work completed and deliverables submitted vs. the agreed upon scope by assigning the appropriate grade and credit to the student. Further, due to the project-based nature of the course, students are able to repeat the course up to four times, if agreed upon by the instructor and the ILEE Curriculum Coordinator. This course would count toward the project-based, experiential learning credit requirement (Appendices B, C).

An example of this is TE/ENG 498 Breakthrough Innovation Teams course that is being offered during the current (Fall 2015) semester. Professor Mani Golparvar-Fard was selected as a Faculty Entrepreneurial Fellow (housed within the Technology Entrepreneur Center [TEC]) to work on "flying superintendents." An MOA was completed between the students and Professor Goldparvar-Fard and the rest of the steps outlined above were followed. 24 students successfully enrolled in Professor Golparvar-Fard's course and completed the course for Fall 2015. As a side note, many have re-enrolled for this course to continue the project for Spring 2016.

The mechanism outlined above is not unique. There are several Departments within the College of Engineering that offer courses for project-based learning activities. For example, Professor Michael Philpott in Mechanical Sciences and Engineering works with students who are able to obtain credit for project-based activities in the ME 199 and ME 491 courses (for example, the Formula SAE section). These courses are structured such that students work within a team, submit papers in regards to their planned and completed activities/skills, and attend consistent meetings with team leaders and the faculty supervisor throughout the semester. While some students choose to only join the Formula SAE club as an extracurricular activity, Professor Philpott noted that at least 50% choose to take the course for credit (either for free or technical electives). We envision the same occurring by students enrolled in the BS in ILEE degree



program, whereby some students may still wish to work on extracurricular activities without credit but many students would take advantage of the option to get credit for such work.

## **BUDGETARY AND STAFF IMPLICATIONS:**

### **1) Resources**

- a. **How does the unit intend to financially support this proposal?** 95% of the program will be supported from tuition dollars (Instructional Units and online course revenue) and the remainder will be funded by gifts. The College of Engineering has committed to raise funds for some of the experiential, project-based programming and associated courses, with a current target of \$10M. Currently, three donors have made major gifts, with others anticipated in the future.
- b. **How will the unit create capacity or surplus to appropriately resource this program? If applicable, what functions or programs will the unit no longer support to create capacity?** There is a commitment from the College of Engineering to increase the FTE headcount as needed for both a curriculum coordinator/advisor and for clinical faculty members needed to launch the BS in ILEE. These additional resources, combined with existing Technology Entrepreneur Center staff, courses, and resources will provide sufficient capacity to launch the BS in ILEE degree program. Initially, the existing TEC courses, as well as others that have been identified within the College of Engineering (Appendices B,C), will be offered to students. The current College of Engineering instructors, TEC instructors, and core faculty will instruct the courses and provide mentorship/guidance to students. As additional resources from alumni and corporate contributions become available, the unit can scale capacity as needed. The College has committed to provide an additional five clinical faculty as the program evolves to help grow these activities beyond TEC's current capabilities when necessary.
- c. **Will the unit need to seek campus or other external resources? If so, please provide a summary of the sources and an indication of the approved support.** The unit is looking to involve alumni for endowments (see (a) above). Presently, there are no additional resources being sought from campus.
- d. **Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.** Letter from College of Engineering provided (Appendix E).

### **2) Resource Implications**

- a. **Please address the impact on faculty resources including the changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc.** The impact will be small, as the majority of these courses already exist and are supported by the existing TEC instructors (Appendix G). As described above in 1(b), the BS in ILEE degree program can launch with current resources with one additional clinical faculty member and the 1/2 FTE current curriculum coordinator/advisor. As the program scales, the TEC has a commitment from the College of Engineering for four additional clinical

faculty positions as needed. The Core Faculty of the BS in ILEE degree will also consist of several faculty members from across the College of Engineering that will help create additional ILEE courses and supervise students taking the project-based, experiential courses. At scale, it is expected that there will be 5 clinical faculty, 5 – 10 Core Faculty (from across the College, with teaching buyout provided by the College of Engineering), and 5 – 10 adjunct faculty at any given time teaching courses within the BS in ILEE degree program.

- b. **Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.** The impact on other units will be negligible, as these courses already exist, either through the Technology Entrepreneur Center or through the home unit. Students participating in the BS in ILEE degree as a dual-degree must be enrolled within their home department already, so no additional impact is anticipated and there will be no increase in the student cohort in the College of Engineering, or any department therein. Meetings were held with the College of Engineering Departments in the Fall of 2014 and any impacts and concerns on course enrollment were discussed and addressed. After the meetings, the proposed BS in ILEE degree was approved in April 2015 by the College of Engineering Executive Committee, which includes representation from each of the COE departments (see Appendix F).
- c. **Please address the impact on the University Library.** The Grainger Engineering Library will be used for innovation space (see Appendix D). No additional resources will be needed from the University Library.
- d. **Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)** There is sufficient administrative space available within the current TEC location in CSL. The build/fabrication design and collaborative spaces for ILEE students is an active area of discussion and action within the College of Engineering and campus wide. In addition to the Grainger Engineering Library space, which has dedicated space specifically for ILEE student projects, there is a campus wide committee planning and designing the Illinois 150 building, a campus-wide collaborative space for undergraduate student projects. ILEE students will also leverage a network of design and build spaces that currently exist across the departments within the College of Engineering.

For new degree programs only:

- 3) **Briefly describe how this program will support the University's mission, focus, and/or current priorities. Include specific objectives and measurable outcomes that demonstrate the program's consistency with and centrality to that mission.** The teaching, research and service missions of the university are common to the existing departments within the College of Engineering. As the students participating in the BS in ILEE degree program are already enrolled in these activities, their reflection of the University's mission, focus and current priorities are directly incorporated. The fourth mission of our institution, economic development, is one



that is often less emphasized within the existing departments of the College. By creation of the BS in ILEE degree program, this mission is placed central to the core of the College, enabling students, faculty, and alumni to become innovative engineering leaders to develop new, innovative technologies, lead their development and application and creating new ventures.

We must be bold and address our needs the Illinois way, leading the nation in the integration of a BS in ILEE degree program in the College of Engineering. Such a structure would put a stake in the ground showing our intent to make ILEE a priority in Engineering education at Illinois. Moreover, such a profound demonstration would help to make Illinois a destination university for students, faculty, and others seeking to engage an innovative engineering college.

- 4) **Please provide an analysis of the market demand for this degree program. What market indicators are driving this proposal? What type of employment outlook should these graduates expect? What resources will be provided to assist students with job placement?** With over 1,000 students in Technology Entrepreneurship Center (TEC) courses and over 4,000 participants taking part in TEC's other activities on an annual basis, there is a need on the Illinois campus for a BS degree that encourages innovation and leadership in Engineering Entrepreneurship. While many students will continue to participate in such activities on an extracurricular basis, Illinois can be a national leader for awarding credit for such project-based, experiential activities and thus making it transcriptable. As stated above, many of the current TEC students and alumni have given positive feedback regarding the TEC courses and programs. The feedback received is that students want formal, transcriptable credit and a degree for the innovation and leadership courses and programs in which they are participating. Further an ILEE degree could be a unique recruiting tool for potential students to not only increase overall enrollment, but to also increase the quality of incoming and outgoing students. For example, admission and other University and College of Engineering staff/faculty can tell potential incoming freshman about the unique opportunity to get credit for building and honing their engineering innovation and leadership skill set while at Illinois. As mentioned above (Justification Section, #4), there is a strong demand for these courses. Many students that take engineering innovation and leadership courses tend to not just take one course, but rather take several courses. While the enrollment is already significant considering the fact that only a non-transcriptable certificate is offered in return, we anticipate that the demand will significantly increase once a degree is offered. We are not aware of any other university offering a Bachelors degree of this kind.

The job outlook for the students participating in this degree is strong. They will leave the University of Illinois with a traditional engineering degree along with an additional set of skills. A recent article by Forbes using data from Payscale.com indicated that 47% of Millennials worked for companies with less than 100 employees (<http://www.payscale.com/gen-y-education>). Students graduating with a BS in ILEE will have a set of skills that will enable them to be valuable contributors

within these small companies, launch their own ventures, as well as to be innovative and entrepreneurial leaders within both small and large organizations, as well as in research laboratories and academic institutions. By having a BS in ILEE degree, a student's resume and transcript will show an employer (and perhaps serve as a starting discussion point) the commitment and drive that a student has towards being an innovative engineering leader. Students with the ILEE degree will have access to the Engineering Career services to help them with job placement upon graduation.

- 5) **If this is a proposed graduate program, please discuss the programs intended use of waivers. If the program is dependent on waivers, how will the unit compensate for lost tuition revenue? Not applicable**

**DESIRED EFFECTIVE DATE:** Fall 2016

**STATEMENT FOR PROGRAMS OF STUDY CATALOG:** Appendix A

**CLEARANCES:**

Signatures:

See attached email of Jan. 26, 2015; 9:12 a.m.  
Unit Representative: \_\_\_\_\_ Date: \_\_\_\_\_

See attached email of Jan. 25, 2016; 5:11 p.m.  
College Representative: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_  
Graduate College Representative: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_  
Council on Teacher Education Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix A:**  
**Statement for the Programs of Study Catalog**  
**For the Degree of Bachelor of Science in Innovation, Leadership and Engineering Entrepreneurship**

The Technology Entrepreneur Center offers studies leading to the Bachelor of Science in Innovation, Leadership and Engineering Entrepreneurship (ILEE). The BS in ILEE degree is intended for College of Engineering students to better understand the innovative processes involved in identifying problems and creating, developing, and leading efforts to provide their engineering solutions. The curriculum is based on a sound disciplinary engineering technical core with additional aspects of problem identification and innovation, and complex multidisciplinary engineering project management and leadership.

**Overview of Curricular Requirements**

The curriculum requires 128 hours for graduation and is organized as shown below.

**Orientation and Professional Development**

These courses introduce the opportunities and resources your college, department, and curriculum can offer you as you work to achieve your career goals. They also provide the skills to work effectively and successfully in the engineering profession.

Hours	Requirements
1	TE 298 - ILEE Introduction Course
0	COE Department of Concentration introduction course
0	ENG 100—Engineering Orientation <sup>1</sup>
<b>1</b>	<b>Total</b>

*1. External transfer students take ENG 300—Engrg Transfer Orientation instead.*

**Foundational Mathematics and Science**

These courses stress the basic mathematical and scientific principles upon which the engineering discipline is based.

Hours	Requirements
3	Chem 102 - General Chem I
1	Chem 103 – General Chem Lab I
4	MATH 221—Calculus I <sup>1</sup>
3	MATH 231—Calculus II
4	MATH 241—Calculus III
3	MATH 285 – Intro Differential Equations
4	PHYS 211—University Physics: Mechanics
4	PHYS 212—University Physics: Elec & Mag
<b>26</b>	<b>Total</b>

*1. MATH 220—Calculus may be substituted, with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus.*

### Innovation, Leadership and Engineering Entrepreneurship Technical Core

These courses stress fundamental concepts that comprise the common intellectual understanding of innovation and leadership in Engineering Entrepreneurship.

Hours	Requirements
2	TE 250 – High-Tech Ventures: From Idea to Enterprise
4	TE 298/398 – Breakthrough Innovation Teams (TE 401) <sup>1</sup>
3	ENG 298 – User Oriented Collaborative Design
4	TE 333 – Creativity, Innovation and Vision
1	TE 360 – Lectures in Engineering Entrepreneurship
3	GE 361 – Emotional Intelligence
3	TE 398 – Legal Issues in Engineering Entrepreneurship (TE 450) <sup>1</sup>
2	TE 398 – Innovation and Engineering Design
3	TE 461 – Technology Entrepreneurship
3	GE 462 – Leading Sustainable Change
2	TE 466 – High-Tech Venture Marketing
14	COE Department of Concentration Approved Technical core
<b>44</b>	<b>Total</b>

1. The course number in parentheses indicates the new course number that will appear in the course catalog once the courses are formally approved by the College of Engineering and Provost offices. In the Fall 2016, TE 298/398: Breakthrough Innovation Teams will be listed as TE 401: Developing Breakthrough Projects and TE 398: Legal Issues in Engineering Entrepreneurship will be listed as TE 450: Startups: Incorporation, Funding, Contracts, and Intellectual Property.

### Technical Electives

This elective requirement gives each student freedom to define a technical course of study in innovation and leadership of considerable breadth and focus.

Hours	Requirements
19	Technical electives to be chosen from ILEE approved list.
8	Technical electives to be chosen from COE Department of Concentration approved list.

### Liberal Education

The liberal education courses develop students' understanding of human culture and society, build skills of inquiry and critical thinking, and lay a foundation for civic engagement and lifelong learning.

Hours	Requirements
6	Electives from the campus General Education social & behavioral sciences list.
6	Electives from the campus General Education humanities & the arts list.
6	Electives either from a list approved by the college, or from the campus General Education lists for social & behavioral sciences or humanities & the arts.
<b>18</b>	<b>Total</b>

Students must also complete the campus cultural studies requirement by completing (i)

one western/comparative culture(s) course and (ii) one non-western/U.S. minority culture(s) course from the General Education cultural studies lists. Most students select liberal education courses that simultaneously satisfy these cultural studies requirements. Courses from the western and non-western lists that fall into free electives or other categories may also be used satisfy the cultural studies requirements.

### Composition

These courses teach fundamentals of expository writing.

Hours	Requirements
4	RHET 105—Principles of Composition
	Advanced Composition. May be satisfied by taking any course in either the liberal education or free elective categories which has the Advanced Composition designation.
<b>4</b>	<b>Total</b>

### Free Electives

These unrestricted electives, subject to certain exceptions as noted at the College of Engineering advising Web site, give the student the opportunity to explore any intellectual area of unique interest. This freedom plays a critical role in helping students to define research specialties or to complete minors.

Hours	Requirements
<b>8</b>	Free electives not counted above Additional unrestricted course work, subject to certain exceptions as noted at the College of Engineering advising Web site. At least 128 credit hours must be earned to graduate.

### Suggested Sequence

The schedule that follows is illustrative, showing the typical sequence in which courses would be taken by a student with no college course credit already earned and who intends to graduate in four years. Each individual's case may vary, but the position of required named courses is generally indicative of the order in which they should be taken.

### First year

Hours	First Semester
3	CHEM 102 – General Chem I
1	CHEM 103 – General Chem I Lab
0	COE Dept of Concentration introduction course
1	TE 298 – Introduction to ILEE
0	ENG 100—Engineering Orientation
2	TE 250 – High-Tech Ventures: From Idea to Enterprise
4	MATH 221—Calculus I <sup>1</sup>
4-3	RHET 105—Principles of Composition <sup>2</sup> or Liberal education elective <sup>3</sup>
<b>14-15</b>	<b>Total</b>

Hours	Second Semester
3	ENG 298 – User Oriented Collaborative Design
3	COE Dept of Concentration Technical core <sup>4</sup>
3	MATH 231—Calculus II
4	PHYS 211—University Physics: Mechanics
3-4	Liberal education elective <sup>3</sup> or RHET 105—Principles of Composition <sup>2</sup>
<b>16-17</b>	<b>Total</b>

### Second year

Hours	First Semester
4	TE 333- Creativity, Innovation and Vision
1	TE 360 – Lectures in Engineering Entrepreneurship
3	GE 361 – Emotional Intelligence Skills
4	MATH 241—Calculus III
4	PHYS 212—University Physics: Elec & Mag
<b>16</b>	<b>Total</b>

Hours	Second Semester
4	COE Dept. of Concentration Technical Core <sup>4</sup>
3	TE 398 – Legal Issues in Engineering Entrepreneurship (TE 450) <sup>5</sup>
3	MATH 285 – Intro Differential Equations
6	Liberal education electives <sup>3</sup>
<b>16</b>	<b>Total</b>

### Third year

Hours	First Semester
3	TE 461 – Technology Entrepreneurship
4	TE 398 – Breakthrough Innovation Teams (TE 401) <sup>5</sup>
3	GE 462 – Leading Sustainable Change
3	Liberal education elective <sup>3</sup>
4	Free elective
<b>17</b>	<b>Total</b>

Hours	Second Semester
9	ILEE Technical electives <sup>4</sup>
2	TE 398 – Innovation and Engineering Design
2	TE 466 – High-Tech Venture Marketing
4	COE Dept of Concentration Technical core <sup>4</sup>
<b>17</b>	<b>Total</b>

### Fourth year



Hours	First Semester
5	ILEE Technical electives <sup>4</sup>
3	COE Dept of Concentration Technical electives <sup>4</sup>
4	COE Dept of Concentration Technical core <sup>4</sup>
4	Free electives
<b>16</b>	<b>Total</b>

Hours	Second Semester
5	ILEE Technical electives <sup>4</sup>
4	COE Dept of Concentration Technical electives <sup>4</sup>
6	Liberal education elective <sup>3</sup>
<b>15</b>	<b>Total</b>

1. *MATH 220—Calculus may be substituted, with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus.*

2. *RHET 105 should be taken in the first or second semester of the first year as authorized. The alternative is a social sciences or humanities elective.*

3. *Liberal education electives must include 6 hours of social & behavioral sciences and 6 hours of humanities & the arts course work from the campus General Education lists. The remaining 6 hours may be selected from a list maintained by the college, or additional course work from the campus General Education lists for social & behavioral sciences or humanities & the arts. Students must also complete the campus cultural studies requirement by completing (i) one western/comparative culture(s) course and (ii) one non-western/U.S. minority culture(s) course from the General Education cultural studies lists. Most students select liberal education courses that simultaneously satisfy these cultural studies requirements. Courses from the western and non-western lists that fall into free electives or other categories may also be used satisfy the cultural studies requirements.*

4. *To be chosen from an approved list.*

5. *The course number in parentheses indicates the new course number that will appear in the course catalog once the courses are formally approved by the College of Engineering and Provost offices. In the Fall 2016, TE 298/398: Breakthrough Innovation Teams will be listed as TE 401: Developing Breakthrough Projects and TE 398: Legal Issues in Engineering Entrepreneurship will be listed as TE 450: Startups: Incorporation, Funding, Contracts, and Intellectual Property.*

### **Financial Aid**

Qualified students may apply for financial aid in the form of fellowships, teaching assistantships, and waivers of tuition and service fees. COE undergraduate support staff will assist students who wish to seek such aid.

**Appendix B:  
Technical Core**

Hours	Requirements
2	TE 250 – High-Tech Ventures: From Idea to Enterprise
4	TE 298/398 – Breakthrough Innovation Teams (TE 401) <sup>1</sup>
3	ENG 298 – User Oriented Collaborative Design
4	TE 333 – Creativity, Innovation and Vision
1	TE 360 – Lectures in Engineering Entrepreneurship
3	GE 361 – Emotional Intelligence
3	TE 398 – Legal Issues in Engineering Entrepreneurship (TE 450) <sup>1</sup>
2	TE 398 – Innovation and Engineering Design
3	TE 461 – Technology Entrepreneurship
3	GE 462 – Leading Sustainable Change
2	TE 466 – High-Tech Venture Marketing
14	COE Department of Concentration Approved Technical core
<b>44</b>	<b>Total</b>

*1. The course number in parentheses indicates the new course number that will appear in the course catalog once the courses are formally approved by the College of Engineering and Provost offices. In the Fall 2016, TE 298/398: Breakthrough Innovation Teams will be listed as TE 401: Developing Breakthrough Projects and TE 398: Legal Issues in Engineering Entrepreneurship will be listed as TE 450: Startups: Incorporation, Funding, Contracts, and Intellectual Property.*

**Appendix C:  
Current Approved Elective Course List for ILEE**

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
TE 150*	Foundations in Entrepreneurship	3
ENG 198	IEFX Projects	1
TE 200	Introduction to Innovation	1
TE 298/398/498	Breakthrough Innovation Teams	1 to 4
ECE 307	Techniques for Engineering Decisions	3
ENG 315**	Learning in Community	3
TE 398 WP	Hip Hop Entrepreneurship	3
ABE 469	Industry-Linked Design Project	4
SOCW 321	Social Entrepreneurship & Social Change	3
SOCW 380	Advanced Social Startup Launch	3 to 6

\* TE 150 was formally approved in December 2015, for a Fall 2016 start. The course currently is listed as TE 298, section LLC.

\*\*The ILEE Curriculum coordinator would work with the student to ensure that the ENG 315: Learning in Community course could only be repeated once (total of two times taking the course).

**Appendix D:  
Letter of Support from Bill Mischo (Grainger Library)**

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

Grainger Engineering Library  
Information Center  
1301 West Springfield Avenue  
Urbana, IL 61801-2936



April 15, 2015

Dr. Andreas Cangellaris, Chair  
College of Engineering Executive Committee  
Engineering Hall

Dear Andreas:

As part of the continuing collaboration between the College of Engineering and the Library, the Grainger Engineering Library Information Center is in the process of converting the lower level as well as spaces on the upper floors to innovation space for students and faculty. We greatly appreciate your support in this endeavor. This space and the associated information services will be available for students that are participating in the new Bachelor Degree program in Engineering Entrepreneurship that the College of Engineering is proposing.

Best regards,

Bill

A handwritten signature in black ink that reads "William H. Mischo".

William H Mischo  
Head, Grainger Engineering Library  
Professor, University Library  
University of Illinois at Urbana-Champaign

telephone 217-333-3576 • fax 217-244-7764

**Appendix E:  
Letter of Support from COE (Brandy Meid)**

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

College of Engineering  
Office of the Dean  
306 Engineering Hall, MC 266  
1308 West Green Street  
Urbana, IL 61801



November 12, 2015

Dr. Andreas Cangellaris, Chair  
College of Engineering Executive Committee  
Engineering Hall

Dear Dean Cangellaris:

The financial model for the proposed ILE degree is based upon the current campus budget model of \$110/IU. It is assumed that at steady state there will be 250 students in each class participating in the program. Currently, the Technology Entrepreneur Center (will initially administer the ILE dual degree) has approximately 900-1000 students taking their courses each year. Based upon these assumptions, the new dual degree would need 167 students graduating annually in steady state to be self-sustaining.

**Current average annual enrolment** 900-1,000

**Annual Costs**

5 Clinical Professors @ \$75K	\$375,000
Program Coordinator	\$50,000
Supplies and Expenses	\$25,000
5 TA's @\$20K	<u>\$100,000</u>
Total	\$550,000

**Revenue per Student**

Credits Per Student	30
IU revenue per credit	\$110
Revenue per student	\$3,300

**Students needed per class to Breakeven** 167

Sincerely,

A handwritten signature in black ink, appearing to read 'Brandy Meid', written over a light blue horizontal line.

Brandy Meid  
Assistant Dean for Administration  
College of Engineering

telephone 217-333-2150 • fax 217-244-7705

**Appendix F:  
Impact on College of Engineering Departments' Enrollment:  
BS in ILEE Degree Approved by College of Engineering Executive Committee**

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

College of Engineering  
Executive Committee  
306 Engineering Hall, MC 266  
1308 West Green Street  
Urbana, IL 61801



April 30, 2015

**RECEIVED**  
MAY 04 2015  
OFFICE OF THE PROVOST

Kristi Kuntz  
Assistant Provost  
217 Swanlund Administration Building  
MC-304

Vis: Andreas Cangellaris, Engineering College

Dear Provost Kuntz:

The College of Engineering Executive Committee has reviewed and approved the following:

**Course Proposal "Establish a Bachelor of Science in Innovation, Leadership,  
and Engineering Entrepreneurship (BS in ILEE) degree in the College  
of Engineering"**

Attached is a copy of the request.

Sincerely yours,

David Ruzic, Vice Chair  
Executive Committee

Approval Recommended:

4-30-2015

Andreas Cangellaris, Dean  
College of Engineering

Date

Enclosure

c: Kevin Pitts  
Adva Waranyuwat  
Andy Singer  
Jed Taylor

tel: 217-244-2151 • fax: 217-244-7709



**Appendix G:  
Technology Entrepreneur Center  
Fall 2015 Course Assignments and Student Enrollment**

<b>Course</b>	<b>Course Name</b>	<b>Instructor</b>	<b># credits</b>	<b>Student Enrollment</b>
TE 200	Introduction to Innovation	Larson, Stephanie	1	28
TE 298/398	Breakthrough Innovation Teams	Golparvar Fard, Mani & Rogers, John	1-4	9
ENG 298	User-Oriented Collaborative Design	Weightman, David	3	25
TE 298	From Idea to Enterprise	Sorkin, Harlan	2	46
TE 298	Foundations in Entrepreneurship	Allen, Andrew	3	7
ENG 333	Creativity, Innovation, Vision	Litchfield, Bruce	4	67
TE 360	Lectures in Engineering Entrepreneurship	Durack, Gary	1	120
TE 398	Innovation and Engineering Design	Singer, Andy and Carney, Scott	2	30
TE 398	Legal Issues in Engineering Entrepreneurship	Barich, Joseph	3	15
TE 461	Technology Entrepreneurship	Lilly, Brian	3	27
TE 466	High Tech Venture Marketing	Shabbir, Shahbaz	2	63

**Appendix H:  
Letter of Support from COB (Jeffrey R. Brown)**

**UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN**

College of Business  
Office of the Dean  
260 Wohlers Hall  
1206 South Sixth Street  
Champaign, IL 61820-6980



Date: January 21, 2016

To: Andrew Singer, Professor, Electrical and Computer Engineering

From: Jeffrey R. Brown, Josef and Margot Lakonishok Professor in Business and Dean, College of Business

Thank you for sending me the documents pertaining to the proposal to establish a Bachelor of Science in Innovation, Leadership and Engineering-Entrepreneurship degree for the College of Engineering. After reviewing the revised proposal that you sent to me on 1/19/16, I am glad to lend my enthusiastic support for this new program.

The revised proposal has addressed the concerns previously expressed by our colleagues. I believe this new degree will further advance the College of Engineering's reputation for having an innovative curriculum that is relevant to engineering students of today and leaders of tomorrow. It will address an important and growing demand by employers and students to enhance engineering students' capacity to understand and lead innovation across the breadth of society's needs with the depth and insight of an Illinois engineer.

I applaud the College of Engineering's efforts to advance a unique component of the curriculum with project-based coursework. This aspect will allow students to be innovative, explore areas of interests, and ensure they have an opportunity to apply their knowledge, while providing the necessary faculty oversight.

The College of Business is excited by this new opportunity to collaborate with the College of Engineering and serve the growing demand for curricula around innovation and entrepreneurship. Helping our students develop as innovative leaders is essential to their future and to the economy of the US and the world.

In order to further define our vision for this collaboration and what *Entrepreneurship at Illinois* means for our respective Colleges, Dean Cangellaris and I have agreed to form a small committee, which will include College representatives on innovation, entrepreneurship, undergraduate and graduate education. The proposed Bachelors degree in Innovation, Leadership, and Engineering-Entrepreneurship will be a key part of this plan, along with other offerings from both the colleges being developed collaboratively.

Please accept this letter offering the full support of the College of Business for the new Bachelor of Science in Innovation, Leadership and Engineering-Entrepreneurship. Interested engineering students will be well served by this degree as a strong complement to their disciplinary studies.

*telephone (217) 333-2747 • fax (217) 244-3118*

## Martensen, Kathy

---

**From:** Singer, Andy  
**Sent:** Tuesday, January 26, 2016 9:12 AM  
**To:** Martensen, Kathy  
**Cc:** Meyer, Eric K; Francis, Bettina M; Park, Rachel L; Waranyuwat, Adva Steiner; Pitts, Kevin T; Newell, Brooke Suzanne  
**Subject:** Re: EP.16.05

Hi Kathy,

Thank you for your guidance on this.

Please do withdraw the original proposal, and consider the version we most recently sent as a new one. I believe you have already heard from Kevin Pitts that the College of Engineering does not feel that it needs to re-review the proposal. I have confirmed this with Kevin this morning as well.

So please consider the matter submitted from the College of Engineering. If you need anything else or are waiting for anything from me, or the College, please do let me know. Thanks everyone for all of your help with this.

Best regards,

Andy

---

**From:** "Martensen, Kathy" <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>  
**Date:** Monday, January 25, 2016 at 4:17 PM  
**To:** Andrew Singer <[acsinger@illinois.edu](mailto:acsinger@illinois.edu)>  
**Cc:** "Meyer, Eric K" <[ekmeyer@illinois.edu](mailto:ekmeyer@illinois.edu)>, "Francis, Bettina M" <[bfrancis@illinois.edu](mailto:bfrancis@illinois.edu)>, "Park, Rachel L" <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>, "Waranyuwat, Adva Steiner" <[steiner1@illinois.edu](mailto:steiner1@illinois.edu)>  
**Subject:** RE: EP.16.05

Hi everyone,

I believe we'd need a formal go/no go from you/the College of Engineering as to whether you do indeed wish to withdraw the previous version of the proposal and submit this latest one as new or not. Eric, is there anything else?

Thanks!

Kathy

Kathryn A. Martensen  
Assistant Provost for Educational Programs  
Office of the Provost and Vice Chancellor for Academic Affairs  
207 Swanlund Administration Building, MC-304  
601 East John Street  
Champaign, IL 61820  
Phone: 217-333-6677  
Fax: 217-244-5639  
Email: [kmartens@illinois.edu](mailto:kmartens@illinois.edu)

*CONFIDENTIALITY NOTICE: Under the Illinois Freedom of Information Act (FOIA), any written communication to or from University employees regarding University business is a public record and may be subject to public disclosure.*

---

**From:** Singer, Andy  
**Sent:** Monday, January 25, 2016 1:45 PM  
**To:** Martensen, Kathy <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>  
**Cc:** Meyer, Eric K <[ekmeyer@illinois.edu](mailto:ekmeyer@illinois.edu)>; Francis, Bettina M <[bfrancis@illinois.edu](mailto:bfrancis@illinois.edu)>; Park, Rachel L <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>; Waranyuwat, Adva Steiner <[steiner1@illinois.edu](mailto:steiner1@illinois.edu)>  
**Subject:** Re: EP.16.05

Thanks Kathy. Eric, should I assume that nothing is needed from our side for now?  
Best regards,

Andy

On Jan 22, 2016, at 3:25 PM, Martensen, Kathy <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)> wrote:

Good afternoon all,

Thanks for sharing this with me, Eric. For the first point as to how this flows logistically, I'm going to defer to Bettina and Rachel for a definitive answer. My inclination is that indeed this proposal is substantially different than the original, so what I think should happen would be that the original would be officially withdrawn with this submitted as new rather than having this as simply a revision of the original. Bettina and/or Rachel, can you weigh in on that aspect?

With regards to the second point, creation of a major does indeed go all the way up through IBHE as an action item. I'd advise that the best thing to do there in terms of being prepared is to already familiarize yourself/whoever prepares the proposals with the IBHE proposal form, which I've attached here. At the point in time when a proposal passes EPC and thus is most likely to have had changes addressed, working on a draft of the IBHE proposal form is a good idea. In the event there are any changes then at the Senate and/or BOT levels, those can be adjusted in the IBHE proposal accordingly. This will save time so the proposal can be as ready to go as possible to IBHE after BOT approval.

I hope this information is helpful.

Best wishes,

Kathy

Kathryn A. Martensen  
Assistant Provost for Educational Programs  
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---

**From:** Meyer, Eric K  
**Sent:** Thursday, January 21, 2016 8:44 PM  
**To:** Singer, Andy <[acsinger@illinois.edu](mailto:acsinger@illinois.edu)>  
**Cc:** Francis, Bettina M <[bfrancis@illinois.edu](mailto:bfrancis@illinois.edu)>; Martensen, Kathy <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>; Park, Rachel L <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>  
**Subject:** RE: EP.16.05

Thanks, Andy.

Being that this is an almost complete substitute for the original proposal, we probably should run it back through the provost's office just to be on the safe side, then after Kathy has reviewed it ask Rachel to post it for EPC committee review.

One thing you might want to explore with Kathy is this technically is a new degree or a new major within an existing degree. It sounds like a difference that makes no difference, but it could impact the levels of governance it will have to go through down the line. As I understand it, a new major attached to an existing degree stops at BOT, but a completely new degree must go all the way to IBHE. Kathy is the expert on this, and it might save time to ask her to weigh in before we actually post it for EPC review. It may be only a matter of a clarifying phrase or a particular box being checked on a checklist, but I would hate for something like that to slow down EPC consideration. Then again, I may be completely wrong about this. That's why it probably makes sense for Kathy to weigh in.

---

**From:** Singer, Andy

**Sent:** Thursday, January 21, 2016 2:52 PM

**To:** Bettina Francis; Meyer, Eric K

**Cc:** Francis, Bettina M; Taylor, Jed L; Newell, Brooke Suzanne; Pitts, Kevin T

**Subject:** Re: EP.16.05

Dear Eric and Bettina,

I apologize for a few days delay from MLK day. I am enclosing the revised BS ILEE proposal for your review and discussion at your coming meeting. Please let me know if you need or would like any additional information.

warm regards,

Andy

<BHE New Degree Template.doc>

## Martensen, Kathy

---

**From:** Pitts, Kevin T  
**Sent:** Monday, January 25, 2016 5:11 PM  
**To:** Martensen, Kathy; Waranyuwat, Adva Steiner  
**Subject:** RE: EP.16.05

Kathy,

Yes, this is ok with us. Although some of the logistical details of the proposal have changed, the content and student requirements have not. As a consequence, I see no benefit for performing another internal College review. We are happy to simply withdraw the previous and submit this as a new version.

Regards,  
Kevin

---

**From:** Martensen, Kathy  
**Sent:** Monday, January 25, 2016 5:03 PM  
**To:** Pitts, Kevin T <kpitts@illinois.edu>; Waranyuwat, Adva Steiner <steiner1@illinois.edu>  
**Subject:** FW: EP.16.05

Kevin and Adva,

Is this okay by the College of Engineering?

Thanks,

Kathy

Kathryn A. Martensen  
Assistant Provost for Educational Programs  
Office of the Provost and Vice Chancellor for Academic Affairs  
207 Swanlund Administration Building, MC-304  
601 East John Street  
Champaign, IL 61820  
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---

**From:** Meyer, Eric K  
**Sent:** Monday, January 25, 2016 5:00 PM  
**To:** Singer, Andy <[acsinger@illinois.edu](mailto:acsinger@illinois.edu)>  
**Cc:** Park, Rachel L <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>; Bettina Francis <[bfrancis@life.uiuc.edu](mailto:bfrancis@life.uiuc.edu)>; Martensen, Kathy <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>  
**Subject:** Re: EP.16.05

I think we're OK.

Technically, I'm told, we're going to ask you to **withdraw the original proposal and submit the latest as a new proposal**. I'm told they are sufficiently different that it would make for cleaner bookkeeping that way. I don't think we'll need you to resend it to us, assuming the provost's office has no concerns. Once the provost's office signs off, Rachel can simply post the copy you



provided last week. Assuming all goes well, I'll be gathering input from individual committee members, who haven't yet seen the revision, and sending you questions, if members have any, probably later this week.

Let me know if you have any questions.

---

**From:** "Singer, Andy" <[acsinger@illinois.edu](mailto:acsinger@illinois.edu)>  
**Date:** Monday, January 25, 2016 at 1:44 PM  
**To:** "Martensen, Kathy" <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>  
**Cc:** Eric Meyer <[ekmeyer@illinois.edu](mailto:ekmeyer@illinois.edu)>, Bettina Francis <[bfrancis@illinois.edu](mailto:bfrancis@illinois.edu)>, "Park, Rachel L" <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>, "Waranyuwat, Adva Steiner" <[steiner1@illinois.edu](mailto:steiner1@illinois.edu)>  
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Best regards,

Andy

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I hope this information is helpful.

Best wishes,

Kathy

Kathryn A. Martensen  
Assistant Provost for Educational Programs  
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**Sent:** Thursday, January 21, 2016 8:44 PM  
**To:** Singer, Andy <[acsinger@illinois.edu](mailto:acsinger@illinois.edu)>  
**Cc:** Francis, Bettina M <[bfrancis@illinois.edu](mailto:bfrancis@illinois.edu)>; Martensen, Kathy <[kmartens@illinois.edu](mailto:kmartens@illinois.edu)>; Park, Rachel

L <[rlpark@illinois.edu](mailto:rlpark@illinois.edu)>

**Subject:** RE: EP.16.05

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---

**From:** Singer, Andy

**Sent:** Thursday, January 21, 2016 2:52 PM

**To:** Bettina Francis; Meyer, Eric K

**Cc:** Francis, Bettina M; Taylor, Jed L; Newell, Brooke Suzanne; Pitts, Kevin T

**Subject:** Re: EP.16.05

Dear Eric and Bettina,

I apologize for a few days delay from MLK day. I am enclosing the revised BS ILEE proposal for your review and discussion at your coming meeting. Please let me know if you need or would like any additional information.

warm regards,

Andy

<BHE New Degree Template.doc>

UNIVERSITY OF ILLINOIS  
AT URBANA-CHAMPAIGN

EP.16.51

Office of the Provost and Vice Chancellor  
for Academic Affairs

Swanlund Administration Building  
601 East John Street  
Champaign, IL 61820



January 26, 2016

Bettina Francis, Chair  
Senate Committee on Educational Policy  
Office of the Senate  
228 English Building, MC-461

Dear Professor Francis:

Enclosed is a copy of a proposal from the College of Engineering to establish a Bachelor of Science in Innovation, Leadership and Engineering Entrepreneurship.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Kathryn A. Martensen'.

Kathryn A. Martensen  
Assistant Provost

Enclosures

c: K. Pitts  
A. Waranyuwat  
A. Singer  
B. Newell