



---

## Proposal to the Senate Educational Policy Committee

**PROPOSAL TITLE:** Establish Graduate Concentration in Plasma Engineering within the Master of Engineering in Engineering Degree in the College of Engineering

**SPONSOR:** Rizwan Uddin, Department Head of Nuclear, Plasma and Radiological Engineering, 217-333-2295, rizwan@illinois.edu.

**COLLEGE CONTACT:** Harry Dankowicz, Associate Dean for Graduate, Professional and Online Programs, 217-244-1231, danko@illinois.edu

### BRIEF DESCRIPTION:

This proposal seeks to establish a Concentration in Plasma Engineering in the Master of Engineering (MEng) in Engineering degree in the College of Engineering (CoE). This concentration is professionally oriented and aimed at providing students solid foundational knowledge in three major sub-areas: plasma processing, plasma systems, and fusion technology. Students in this concentration will develop interdisciplinary competence through elective enrollment in CoE courses supporting complementary disciplines that intersect plasma engineering, including materials science, semiconductor processing, chemical catalysis, plasma medicine, and energy systems.

This concentration will be housed in the Department of Nuclear, Plasma and Radiological Engineering (NPRES). The concentration will require 32 hours organized as follows:

- 16 credit hours of core coursework in NPRES (see Appendix A);
- 12 credit hours of elective coursework to be chosen in consultation with advisor;
- 4 credit hours of professional development; with
- at least 12 credit hours at the 500 level overall.

### JUSTIFICATION:

The NPRES Department at Illinois has established robust MS and PhD programs focused on research in nuclear, plasma, and radiological engineering. Based on market research and feedback from alumni working at prominent companies such as Intel Corporation, LAM Research, IBM, and Applied Materials, NPRES has identified a need also for a professionally-oriented master's-level curriculum that focuses on plasma engineering principles that are missing in comparable curricula in mechanical and electrical engineering.

Plasmas find use in a variety of leading-edge industry applications, including: bioactive surface functionalization, enhancing photo-catalytic behavior, manufacturing of hard coatings, converting intermittent sustainable energy into fuels, and realizing efficient solid-state lighting. The production of semiconductor chips utilizes plasmas interacting with surfaces at every major step: lithography to make the pattern, etching to remove material, and deposition to fill the right material back in. The newest lithography systems use EUV light produced by a plasma rather

than a laser. In all lithography systems, the photo-resist is removed by plasma processing. Etching using plasmas has been the standard for years and heralded the advent of the personal computer when it replaced chemical etching. In deposition, plasma-enhanced chemical and physical vapor deposition are mainstays. All of these processes lie at the heart of making, running, and designing new “fabs” – yet very few scientists and engineers doing this work are Plasma Engineers, or even know much about plasmas. Major chip and semiconductor manufacturers hire electrical and mechanical engineers into positions where the use of plasmas impacts every stage of their job. Lack of proper preparation in plasma processing, vacuum technology, and plasma engineering principles results in the need for additional training and costly overhead. With increasing demand for shorter technology development time scales, hiring engineers with advanced training in plasma technology is highly desired.

Illinois is uniquely positioned to respond to the demand for Plasma Engineers. Indeed, there is no institution in the world with the curricular depth and breadth of the plasma engineering program at Illinois. This program also benefits from expertise and infrastructure sustained by state-of-the-art research and innovation activities in NPPE across plasma science and engineering, including the HIDRA stellarator fusion facility, over 20 plasma-based processing devices, 3 major plasma surface-engineering facilities, and leading computational plasma-physics simulations tools and software for analyzing plasma-materials interactions.

The proposed professionally-oriented Concentration in Plasma Engineering will leverage the academic and research leadership of Illinois to prepare graduates to fill technical development and management roles in plasma-based industries. It relies on a core curriculum composed from existing courses and special-topics courses (498 or 598) that have been offered at least twice each, which have been proposed as new courses (see Appendix A). It further leverages a wealth of elective courses across the College of Engineering that build competence in complementary disciplines, including plasma medicine, semiconductor processing, control systems, computational plasma physics, surface materials science, astrophysics, plasma diagnostics, energy systems, materials by design, software development, data science, advanced materials characterization, and chemical processes.

## **BUDGETARY AND STAFF IMPLICATIONS:**

### **1) Resources**

#### **a. How does the unit intend to financially support this proposal?**

The unit is requesting self-supporting program status for this concentration. Students enrolled in this concentration will pay tuition. The College of Engineering will use some of the graduate tuition dollars returned to the college from the Office of the Vice Provost for Budget and Resource Planning to provide the NPPE department with resources needed to support the proposed curriculum. Graduate tuition funds returned to the college from campus are considered state, recurring funds that may be used to fund faculty and lecturer salaries, support instruction, or at the discretion of the NPPE Department Head in a manner consistent with campus policy.

- 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?**

The proposed curriculum is composed from existing courses and three new courses that were previously offered as special-topics courses (NPPE 498 or 598). Existing capacity and controlled enrollments will ensure the overall quality of experience for students in the program. No changes are necessary to existing functions or programs.

- 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.**

No campus or other external funding sources are needed. Resources made available by campus to support growth in professionally-oriented master's programs, as well as tuition resources will be sufficient to develop and offer the program.

- d. **Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.**

The submission of this proposal by the College of Engineering will verify the financial arrangement in answer 1a, above. See attached MOU in Appendix C.

## 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 proposed program will not adversely impact faculty resources or the student-to-faculty ratio. In fact, NPPE has added three faculty members in the past five years with expertise in plasma engineering as part of a strategic alignment of research and education. Moreover, NPPE created three new courses to support this program, which all three have been taught twice previously as either NPPE 498 or 598. Existing faculty resources are therefore adequate for servicing the increased demand on plasma engineering courses anticipated through this program. Tuition revenues will fund additional teaching assistant and teaching faculty support as necessary.

- b. **Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.**

It is anticipated that enrollment in the Concentration in Plasma Engineering will ramp up to an average of 20-25 students in the first three years of the program, with a long-term steady-state of 30-40 students per year. Students enrolled in this concentration will have a large range of options available to fulfill the elective course requirement, implying minimal impact on enrollments in courses offered by units outside NPPE.

- c. **Please address the impact on the University Library.**

See attached letter from the Library.

- d. **Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)**

No impact on research labs as this is a non-research master's program. The lab space

in NPRE that is used for the required core course, NPRE 423, has the ability to add sections to accommodate the additional enrollment. The remaining coursework does not require lab space. In addition, the College of Engineering has ample engineering workstations to accommodate the resources that are needed for this program.

**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 proposed concentration will position the University as a unique destination for prospective students interested in a professionally-oriented curriculum in plasma engineering. It will also attract attention of employers from across the public, private, and nongovernment sectors who will be engaged as part of a deliberate effort to develop internship and career opportunities for program students and graduates. By its nature, the proposed concentration is consistent with campus priorities that emphasize cooperation among multiple disciplines. Finally, as an element of a revenue-generation strategy, the proposed concentration will provide resources for enhancing scholarship and educational opportunity also outside its disciplinary focus. Measurable outcomes include meeting enrollment, graduation, and placement objectives, but also indirect effects on the hiring of Plasma Engineers, as well as external funding for research and educational innovation at the nexus of plasmas for use across many cutting-edge technologies.

- 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?

There is clear demand for Plasma Engineers to meet the needs of the semi-conductor industry, as well as across a range of application areas in medicine, energy production, and advanced manufacturing. NPRE PhD and MS students with a focus in plasma engineering typically graduate with multiple job offers. Several companies fund NPRE plasma science and engineering research explicitly for the opportunity to get to know our students and potentially employ them. Indeed, feedback from the companies who want to hire our graduates, e.g., Intel Corporation and Tokyo Electron Ltd, is an important driver in the creation of the proposed professionally-oriented Concentration in Plasma Engineering.

At the same time, peer US institutions offer at most limited exposure to plasma engineering. Plasma-based research at Michigan, Princeton, Wisconsin, and North Carolina State result in about 1-2 courses offered in the subject of plasma engineering. Plasma physics courses are available in select physics, electrical engineering, and aerospace engineering programs in the US, in support of related research. Worldwide, there are a few master's-level programs with similar coverage; in Plasma Surface Engineering at Sheffield Hallam University and in Plasma Science at Ecole Polytechnique Federale de Lausanne. Neither has the scope of course offerings and related infrastructure that are available at Illinois. Another program is the Plasma Engineering at TU Eindhoven in the Netherlands. This program is affiliated with the Dutch Institute for Fundamental Energy Research (DIFFER) where several of the NPRE plasma faculty have significant collaboration. The program has several plasma-related courses.

To assist students with job placement, NPRE faculty and staff will work closely with Engineering Career Services and staff from the College of Engineering Center for Professional and Executive Training and Education. This will include realizing opportunities

for internships (ENG 572) and capstone project (ENG 573) experiences that will put students in direct contact with potential employers.

- 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?

Self-supporting status will be requested for this concentration, i.e., students under this program code will not be eligible for tuition waivers. This will be a fast-paced, 1-year professionally-oriented master's degree.

**DESIRED EFFECTIVE DATE:** Fall 2019

**STATEMENT FOR PROGRAMS OF STUDY CATALOG:** See Appendix B

**CLEARANCES:** *(Clearances should include signatures and dates of approval. These signatures must appear on a separate sheet. If multiple departments or colleges are sponsoring the proposal, please add the appropriate signature lines below.)*

Signatures:



\_\_\_\_\_  
Unit Representative:



\_\_\_\_\_  
College Representative:

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

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

\_\_\_\_\_  
October 19 2018

Date:

\_\_\_\_\_  
12-12-18

Date:

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Date:

## Appendix A: Proposed Concentration in Plasma Engineering

### Concentration Degree Requirements

Program Component	Hours
Core Courses <ul style="list-style-type: none"> <li>• NPRE 421, Plasma and Fusion Science (3 hours)</li> <li>• NPRE 423, Plasma Laboratory (2 hour)</li> <li>• NPRE 429, Plasma Engineering (3 hours)</li> <li>• NPRE 527, Plasma Technology of Gaseous Electronics (4 hours)</li> </ul> In addition, must complete one of the following courses: <ul style="list-style-type: none"> <li>• NPRE 481, Writing on Technology and Security (4 hours)</li> <li>• ENG 573, Capstone Project (4 hours)</li> <li>• NPRE 523, Plasma Waves (4 hours)</li> <li>• NPRE 526, Plasma-Material Interactions (4 hours)</li> </ul>	16
Elective Courses to be selected with approval of an advisor in areas relevant to Plasma Engineering such as material science, semiconductor processing, plasma medicine, and energy systems.	12
Professional Development Courses from approved list	4
<b>Total Hours</b>	<b>32</b>
Minimum of 12 hours of the 500-level courses required for the degree, with a minimum of 8 500-level credit hours in NPRE.	

NOTE: NPRE has submitted three new course proposals for the following core courses:

- NPRE 523, Plasma Waves. This course has been taught twice as NPRE 598 in Fall 2014 (Plasma Waves & Heating Tech) and Fall 2017 (Plasma Waves & Heating Tech).
- NPRE 526: Plasma-Material Interactions. This course has been taught twice as NPRE 598 in Spring 2016 (Fund Plasma Matls Interactions) and Spring 2018 (Fund Plasma Matls Interactions).
- NPRE 527: Plasma Technology of Gaseous Electronics. This course has been taught twice as NPRE 498 in Spring 2015 (Fusion Device operations) and Fall 2016 (Fusion Device operations). As the content for this course is finalized, the name of the course may be tweaked.

#### **Approved list of Professional Development Courses**

Students must complete a minimum of 4 hours from the list below:

- NPRE 597, Independent Study (project-based with advisor approval)
- ENG 572, Professional Practicum (external internship)
- ENG 573, Capstone Project (additional 4 hours of a large project if not completed in core requirement)
- TE 461, Technology Entrepreneurship
- TE 565, Technology Innovation & Strategy
- Other advisor-approved business-oriented or leadership courses

## Appendix B: Program of Study

---

### College of Engineering

[engineering.illinois.edu](http://engineering.illinois.edu)

Harry Dankowicz

Associate Dean for Graduate, Professional, and Online Programs

400 Engineering Hall

1308 West Green Street

Urbana, Illinois 61801

217-244-1231

E-mail: [danko@illinois.edu](mailto:danko@illinois.edu)

**Major:** Engineering

**Degrees Offered:** Master of Engineering

**Graduate Concentration:** Plasma Engineering

### Graduate Degree Programs

The College of Engineering offers a professionally-oriented Master of Engineering (MEng) degree program for students whose primary intent is a career in industry or government. This degree differs from the Master of Science degree in that it is a terminal degree and not a pathway to a doctoral program. The major in Engineering for the MEng degree requires the selection of an interdisciplinary concentration.

#### Admission

Students with bachelor's or master's degrees in engineering or related fields will be considered for admission if they have a grade point average of at least 3.00 (A = 4.00) for the last two years of undergraduate study. Admission is possible for the spring term, but most admissions are for the fall term. Full details of admission requirements are on the web page of the department offering the concentration.

All applicants whose native language is not English must submit a minimum TOEFL score of 103 (iBT), 257 (CBT), or 613 (PBT); or minimum [International English Language Testing System \(IELTS\)](#) academic exam scores of 7.0 overall and 6.0 in all subsections. Applicants may be exempt from the TOEFL if [certain criteria](#) are met (see <https://grad.illinois.edu/admissions/instructions/04c> for exemptions). [Full admission status](#) is granted for those meeting the minimum requirements and having taken the TOEFL or IELTS, since the scores required for admission to the MEng program are above the minimum scores demonstrating an acceptable level of English language proficiency.

### Master of Engineering in Engineering with a Concentration in Plasma Engineering

#### Degree Requirements

Code	Hours
Core Courses	16
<ul style="list-style-type: none"><li>NPRE 421, Plasma and Fusion Science (3 hours)</li><li>NPRE 423, Plasma Laboratory (2 hour)</li><li>NPRE 429, Plasma Engineering (3 hours)</li><li>NPRE 527, Plasma Technology of Gaseous Electronics (4 hours)</li></ul>	

Code	Hours
Must complete one of the following courses:	
<ul style="list-style-type: none"> <li>• NPRE 481, Writing on Technology and Security (4 hours)</li> <li>• ENG 573, Capstone Project (4 hours)</li> <li>• NPRE 523, Plasma Waves (4 hours)</li> <li>• NPRE 526, Plasma-Material Interactions (4 hours)</li> </ul>	
Elective Courses to be selected with approval of an advisor in areas relevant to Plasma Engineering such as material science, semiconductor processing, plasma medicine, and energy systems.	12
Professional Development Courses from approved list	4
<b>Total Hours</b>	<b>32</b>

**Other Requirements and Conditions (may overlap):**

Requirement	Description
A minimum of 20 credit hours must be taken from the University of Illinois Urbana-Champaign campus.	
A minimum of 12 500-level credit hours required for the concentration, with a minimum of 8 500-level credit hours in NPRE.	
No courses used to fulfill any degree requirement may be taken using the “Credit/No Credit” option.	
Minimum GPA:	3.0

\* For additional details and requirements, please refer to the web page of the degree’s home unit and the Graduate College Handbook.

## Appendix C: MOU Agreement

MEMORANDUM OF UNDERSTANDING BETWEEN THE

### COLLEGE OF ENGINEERING (CoE)

AND THE

### DEPARTMENT OF NUCLEAR, PLASMA, AND RADIOLOGICAL ENGINEERING (NPRE)

For the distribution of tuition funds for tuition-generating enrollments in a  
Professional Master's Degree Program

This MOU applies to tuition paying MEng in Engineering with a concentration in Plasma Engineering students in the NPRE Department and establishes a formula for the transfer of tuition funds between the CoE and NPRE. This is a new agreement, which follows the CoE Guidance Document for Professional Master's Program Tuition ratified in July, 2014. This agreement is not applicable to online programs or enrollments.

- For tuition generated by NPRE self-supporting MEng students, net tuition funds (those returned to CoE from campus minus applicable costs for the CoE Center for Professional and Executive Training and Education) will be split as follows
  - 20% CoE
  - 80% NPRE

Using the Campus Budget Office's report on net tuition received, tuition as non-recurring funds will be distributed to NPRE at the end of each fiscal year. This agreement is effective August 16, 2019 (or term the program is approved) and valid through August 15, 2022, assuming no future changes to the campus budget model.

---

Signatures:



10/19/2018

---

by Harry Dankowicz  
Associate Dean for Graduate, Professional and Online Programs

---

Date



10/19/2018

---

by Rizwan Uddin  
Head, Department of Nuclear, Plasma and Radiological Engineering

---

Date

## Appendix D: Classification



The Graduate College | University of Illinois at Urbana-Champaign

### REQUEST & JUSTIFICATION FORM FOR PROGRAM CLASSIFICATION TRADITIONAL, SELF-SUPPORTING or REIMBURSABLE

**CURRENT PROGRAMS:**

Current graduate programs can request a change in classification to Traditional or Reimbursable, but not to Self-supporting.

**NEW PROGRAMS:**

New programs seeking Traditional classification do not need to complete this form.

New programs seeking Self-supporting classification should be aware of the following:

- Students enrolled in Self-supporting programs are ineligible to hold waiver-generating appointments. **NOTE:** There is no mechanism within the Human Resources Front End system that restricts the appointment of a Self-supporting program student to an assistantship. Therefore, if a unit (faculty or staff) appoints a student, in error, significant problems result for everyone involved.
- Self-supporting status results in reduced flexibility for the program. Even if a student in the program is most qualified for a particular assistantship appointment and financing is available through the program, the program status makes the student ineligible.
- Because Traditional, Reimbursable and Self-supporting programs each yield 90% of net tuition, and the Reimbursable classification avoids the limitations above, a program might find the Reimbursable classification more advantageous than Self-supporting.

Please contact the Fellowship Office at the Graduate College if you have questions or seek clarifications, (217) 333-0036 or gradfellowships@illinois.edu.

**COLLEGE OR SCHOOL:** College of Engineering

**IS THIS A NEW OR EXISTING PROGRAM:**

New Program  
 Existing Program      Program Code: \_\_\_\_\_ Current Classification: \_\_\_\_\_

**REQUESTED CLASSIFICATION:**  TRADITIONAL     REIMBURSABLE     SELF-SUPPORTING

**JUSTIFICATION: On a separate sheet, please address the following.**

- Describe the reasons for this request and explain: (a) the pros and cons of the classification requested, and (b) how the requested classification will benefit and not adversely affect the academic quality of the program.**
- Describe the expected impact of the requested classification to new students. How will these measures affect the affordability of the program? What type of financial aid, if any, will be offered? Note: Continuing students will not be affected as they are subject to the rules in effect at the time of their admission.**
- What provisions will be made to communicate the implications of the classification to prospective and newly admitted students?**
- Name the college and program contact persons in charge of implementing and communicating the classification and its consequences to students.**

**Unit Head Signature and Date** \_\_\_\_\_

**College Dean Signature and Date** \_\_\_\_\_

**1) Describe the reasons for this request and explain: (a) the pros and cons of the classification requested, and (b) how the requested classification will benefit and not adversely affect the academic quality of the program.**

- (a) The proposed concentration is not a research-oriented program. It is designed so that it can be completed in two or three semesters in order to address an academic training gap at a professional level. The requested classification enhances the educational experience of students and employability of graduates who, after attaining a BS degree in engineering or equivalent field, will benefit from the differentiated value provided by this advanced professional degree. The requested classification is not expected to adversely impact recruitment of students interested in a research-oriented track with a traditional tuition model, nor significantly limit the potential pool of prospective students to the professionally-oriented track.
- (b) The requested classification will provide revenue streams that create new opportunities for the College of Engineering and NPPE to support strategic faculty recruitment and new academic initiatives within the area of plasma engineering, as well as across other relevant disciplines, thereby strengthening our scholarly impact and leadership.

**2) Describe the expected impact of the requested classification to new students. How will these measures affect the affordability of the program? What type of financial aid, if any, will be offered? Note: Continuing students will not be affected as they are subject to the rules in effect at the time of their admission.**

This is a new program. No change that would affect any current or future students in the existing MS and PhD degree programs is proposed. All students entering this new MEng concentration will need to pay tuition. We will not offer financial aid to any students who are enrolled in this MEng program.

**3) What provisions will be made to communicate the implications of the classification to prospective and newly admitted students?**

The self-supporting classification will be clearly explained on the program's website and in any and all communications to prospective students

**4) Name the college and program contact persons in charge of implementing and communicating the classification and its consequences to students.**

This is a new concentration within the MEng in Engineering degree. No changes in classification are being requested for any existing program. Professor J.P. Allain, NPPE Associate Head of Graduate Programs, and the Coordinator of MEng Programs for NPPE will be responsible for communicating the self-supporting classification and its consequences to prospective students. Additional College of Engineering contacts for this program are Professor Harry Dankowicz, Associate Dean for Graduate, Online and Professional Programs, and Rhonda McElroy, Executive Director of Engineering Graduate Programs.

**From:** "Uddin, Rizwan" <[rizwan@illinois.edu](mailto:rizwan@illinois.edu)>  
**Date:** Friday, October 19, 2018 at 12:52 PM  
**To:** Rhonda McElroy <[rmcelroy@illinois.edu](mailto:rmcelroy@illinois.edu)>  
**Cc:** "Dankowicz, Harry" <[danko@illinois.edu](mailto:danko@illinois.edu)>, "Allain, Jean Paul" <[allain@illinois.edu](mailto:allain@illinois.edu)>  
**Subject:** Re: Masters of Engineering in Plasma Engineering

Hi Rhonda,

NPRE faculty today unanimously approved the proposal for the MEng concentration under the MEng degree in Engineering.

Rizwan

UNIVERSITY OF ILLINOIS  
AT URBANA - CHAMPAIGN

University Library

Office of University Librarian and Dean of Libraries  
230 Main Library, MC-522  
1408 West Gregory Drive  
Urbana, IL 61801



November 1, 2018

Rhonda McElroy  
Director of Graduate and Professional Programs  
College of Engineering @ ILLINOIS  
Engineering Hall 405  
1308 West Green Street  
Urbana, IL 61801

Dear Rhonda:

Thank you for providing the University Library with the opportunity to review the College of Engineering's proposals to the Senate's Committee on Educational Policy. The proposal to establish a MEng in Engineering with a Concentration in Plasma Engineering and the proposal to establish a MEng in Bioengineering with a concentration in Pharmaceutical Engineering were reviewed by several librarians that provide support for engineering and the biomedical sciences. They believe that the Library is well-positioned to support.

The University Library and the College of Engineering have a long history of working closely together. We look forward to utilizing the resources committed in order to grow in the areas necessary to provide support for this program.

Sincerely,



John P. Wilkin  
Juanita J. and Robert E. Simpson  
Dean of Libraries and University Librarian

c: Bill Mischo  
Thomas Teper



**COLLEGE OF ENGINEERING**

Office of the Dean  
306 Engineering Hall, MC-266  
1308 W. Green St.  
Urbana, IL 61801

December 12, 2018

Allison McKinney  
Graduate College  
204 Coble Hall  
MC-322

Via: Rashid Bashir, Engineering College

Dear Allison,

The College of Engineering Executive Committee has reviewed and approved the following program revision. We now submit for campus approval.

**“Establish Graduate Concentration in Plasma Engineering within the Master of Engineering in Engineering Degree in the College of Engineering”**

Attached is a copy of the request.

Sincerely yours,

A handwritten signature in black ink that reads 'Henrique Reis'.

Henrique Reis, Vice Chair  
Executive Committee

Approval Recommended:

A handwritten signature in black ink, appearing to be 'Rashid Bashir', written over a horizontal line.

Rashid Bashir, Dean  
College of Engineering

December 12, 2018

Date

Harry Dankowicz  
Rhonda McElroy  
Henrique Reis



## Senate Educational Policy Committee Proposal Check Sheet

**PROPOSAL TITLE** (Same as on proposal): Establish Graduate Concentration in Plasma Engineering within the Master of Engineering in Engineering Degree in the College of Engineering

**PROPOSAL TYPE** (select all that apply below):

A.  Proposal for a NEW or REVISED degree program. Please consult the Programs of Study Catalog for official titles of existing degree programs.

1. Degree program level:

Graduate                       Professional                       Undergraduate

2.  Proposal for a new **degree** (e.g. B.S., M.A. or Ph.D.):

Degree name, "e.g., *Bachelor of Arts or Master of Science*": \_\_\_\_\_

3.  Proposal for a new or revised **major, concentration, or minor**:

New or  Revised **Major** in (name of existing or proposed major): \_\_\_\_\_

New or  Revised **Concentration** in (name of existing or proposed concentration):

Concentration in Plasma Engineering

New or  Revised **Minor** in (name of existing or proposed minor): \_\_\_\_\_

4.  Proposal to rename an existing major, concentration, or minor:

Major                       Concentration                       Minor

Current name: \_\_\_\_\_

Proposed new name: \_\_\_\_\_

5.  Proposal to terminate an existing degree, major, concentration, or minor:

Degree                       Major                       Concentration                       Minor

Name of existing degree, major, or concentration: \_\_\_\_\_

6.  Proposal involving a multi-institutional degree:

New                       Revision                       Termination

Name of existing Illinois (UIUC) degree: \_\_\_\_\_

Name of non-Illinois partnering institution: \_\_\_\_\_

Location of non-Illinois partnering institution:

State of Illinois       US State: \_\_\_\_\_       Foreign country: \_\_\_\_\_

- B.  Proposal to create a new academic unit (college, school, department, program or other academic unit):

Name of proposed new unit: \_\_\_\_\_

- C.  Proposal to rename an existing academic unit (college, school, department, or other academic unit):

Current name of unit: \_\_\_\_\_

Proposed new name of unit: \_\_\_\_\_

- D.  Proposal to reorganize existing units (colleges, schools, departments, or program):

1.  Proposal to change the status of an existing and approved unit (e.g. change from a program to department)

Name of current unit including status: \_\_\_\_\_

2.  Proposal to transfer an existing unit:

Current unit's name and home: \_\_\_\_\_

Proposed new home for the unit: \_\_\_\_\_

3.  Proposal to merge two or more existing units (e.g., merge department A with department B):

Name and college of unit one to be merged: \_\_\_\_\_

Name and college of unit two to be merged: \_\_\_\_\_

Proposed name and college of new (merged) unit: \_\_\_\_\_

4.  Proposal to terminate an existing unit:

Current unit's name and status: \_\_\_\_\_

- E.  **Other educational policy proposals** (e.g., academic calendar, grading policies, etc.)

Nature of the proposal: \_\_\_\_\_

Revised 10/2012