

PURDUE UNIVERSITY  
REQUEST FOR ADDITION, EXPIRATION,  
OR REVISION OF A GRADUATE COURSE Graduate Council Doc. No. 08-46c  
(50000-60000 LEVEL)

FD 310

Supporting Document Received 5/19/10

DEPARTMENT Engineering Education EFFECTIVE SESSION 2009-10 Spring 2011

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> 1. New course with supporting documents (complete proposal form) | <input type="checkbox"/> 7. Change in course attributes              |
| <input type="checkbox"/> 2. Add existing course offered at another campus                            | <input type="checkbox"/> 8. Change in instructional hours            |
| <input type="checkbox"/> 3. Expiration of a course   | <input type="checkbox"/> 9. Change in course description             |
| <input type="checkbox"/> 4. Change in course number  | <input type="checkbox"/> 10. Change in course requisites             |
| <input type="checkbox"/> 5. Change in course title   | <input type="checkbox"/> 11. Change in semesters offered             |
| <input type="checkbox"/> 6. Change in course credit/type   | <input type="checkbox"/> 12. Transfer from one department to another |

PROPOSED:

Subject Abbreviation ENE

EXISTING:

Subject Abbreviation \_\_\_\_\_

Course Number 69000

Course Number \_\_\_\_\_

Long Title Seminar in Engineering Education

Short Title Sem ENE0 in Engineering Education

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

TERMS OFFERED

Check All That Apply:

- Summer  Fall  Spring

CAMPUS(ES) INVOLVED

- Calumet  N. Central  
 Cont Ed  Tech Statewide  
 Ft. Wayne  W. Lafayette  
 Indianapolis

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 0
2. Variable Credit Range:  
 Minimum Cr. Hrs. \_\_\_\_\_  
 (Check One) To  Or   
 Maximum Cr. Hrs. \_\_\_\_\_
3. Equivalent Credit: Yes  No
4. Thesis Credit: Yes  No

COURSE ATTRIBUTES: Check All That Apply

1. Pass/Not Pass Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
- Maximum Repeatable Credit:
4. Credit by Examination
5. Special Fees
6. Registration Approval Type  
 Department  Instructor
7. Variable Title
8. Honors
9. Full Time Privilege
10. Off Campus Experience

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	1		
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

Seminar course covering a broad range of current discovery, learning, and engagement topics in Engineering Education. Seminar presentations by representatives from academia, industry, other external institutions, and members of the Purdue University community. This is a required course for the graduate program in the Department of Engineering Education.

Prerequisite: Engineering Education student.

\_\_\_\_\_  
Date \_\_\_\_\_ Calumet School Dean \_\_\_\_\_ Date \_\_\_\_\_ Calumet Undergrad Curriculum Committee \_\_\_\_\_ Date \_\_\_\_\_

Fort Wayne Department Head \_\_\_\_\_ Date \_\_\_\_\_ Fort Wayne School Dean \_\_\_\_\_ Date \_\_\_\_\_ Fort Wayne Chancellor \_\_\_\_\_ Date \_\_\_\_\_

Indianapolis Department Head \_\_\_\_\_ Date \_\_\_\_\_ Indianapolis School Dean \_\_\_\_\_ Date \_\_\_\_\_ Undergrad Curriculum Committee \_\_\_\_\_ Date \_\_\_\_\_

North Central Department Head \_\_\_\_\_ Date \_\_\_\_\_ North Central Chancellor \_\_\_\_\_ Date \_\_\_\_\_ Date Approved by Graduate Council \_\_\_\_\_

West Lafayette Department Head \_\_\_\_\_ Date 8/25/08 West Lafayette College/School Dean \_\_\_\_\_ Date \_\_\_\_\_ Graduate Council Secretary \_\_\_\_\_ Date \_\_\_\_\_

Graduate Area Committee Convener \_\_\_\_\_ Date 10/21/10 Graduate Dean \_\_\_\_\_ Date \_\_\_\_\_ West Lafayette Registrar \_\_\_\_\_ Date \_\_\_\_\_

OFFICE OF THE REGISTRAR

10/15/08

APPROVED 10/21/10

*Denise L. Payne* 10/25/10  
Graduate Council Secretary

*Janet ...* 1/13/11  
West Lafayette Registrar

11/11/10



PURDUE UNIVERSITY  
REQUEST FOR ADDITION, EXPIRATION,  
OR REVISION OF A GRADUATE COURSE  
(50000-60000 LEVEL)

51-09

DEPARTMENT Engineering Education EFFECTIVE SESSION 200910

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> 1. New course with supporting documents (complete proposal form) | <input type="checkbox"/> 7. Change in course attributes              |
| <input type="checkbox"/> 2. Add existing course offered at another campus                            | <input type="checkbox"/> 8. Change in instructional hours            |
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| <input type="checkbox"/> 6. Change in course credit/type   | <input type="checkbox"/> 12. Transfer from one department to another |

PROPOSED:

Subject Abbreviation ENE

Course Number 690

Long Title Seminar in Engineering Education

Short Title Sem ENED

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

EXISTING:

Subject Abbreviation \_\_\_\_\_

Course Number \_\_\_\_\_

TERMS OFFERED

Check All That Apply:

- Summer  Fall  Spring

CAMPUS(ES) INVOLVED

- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> Calumet      | <input type="checkbox"/> N. Central              |
| <input type="checkbox"/> Cont Ed      | <input type="checkbox"/> Tech Statewide          |
| <input type="checkbox"/> Ft. Wayne    | <input checked="" type="checkbox"/> W. Lafayette |
| <input type="checkbox"/> Indianapolis |  |

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 0
2. Variable Credit Range:  
Minimum Cr. Hrs. \_\_\_\_\_  
(Check One) To  Or   
Maximum Cr. Hrs. \_\_\_\_\_
3. Equivalent Credit: Yes  No
4. Thesis Credit: Yes  No

COURSE ATTRIBUTES: Check All That Apply

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> 1. Pass/Not Pass Only    | <input type="checkbox"/> 6. Registration Approval Type                  |
| <input type="checkbox"/> 2. Satisfactory/Unsatisfactory Only | Department <input type="checkbox"/> Instructor <input type="checkbox"/> |
| <input type="checkbox"/> 3. Repeatable                       | 7. Variable Title <input type="checkbox"/>                              |
| Maximum Repeatable Credit: <input type="checkbox"/>          | 8. Honors <input type="checkbox"/>                                      |
| <input type="checkbox"/> 4. Credit by Examination            | 9. Full-Time Privilege <input type="checkbox"/>                         |
| <input type="checkbox"/> 5. Special Fees                     | 10. Off-Campus Experience <input type="checkbox"/>                      |

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	1		
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

Seminar course covering a broad range of current discovery, learning, and engagement topics in Engineering Education. Seminar presentations by representatives from academia, industry, other external institutions, and members of the Purdue University community. This is a required course for the graduate program in the Department of Engineering Education.

_____	Date	Calumet School Dean	_____	Date	Calumet Undergrad Curriculum Committee	_____	Date
_____	Date	Fort Wayne School Dean	_____	Date	Fort Wayne Chancellor	_____	Date
_____	Date	Indianapolis School Dean	_____	Date	<i>RACIPRA</i>	10/15/08	Date
_____	Date	Indianapolis School Dean	_____	Date	Undergrad Curriculum Committee	_____	Date
_____	Date	North Central Chancellor	_____	Date	Date Approved by Graduate Council	_____	Date
<i>K. H. H. H.</i>	8/25/08	_____	_____	10/27/08	_____	_____	Date
_____	Date	West Lafayette College/School Dean	_____	Date	Graduate Council Secretary	_____	Date
_____	Date	Graduate Dean	_____	Date	West Lafayette Registrar	_____	Date

OFFICE OF THE REGISTRAR



To: The Faculty of the College of Engineering  
From: Department of Engineering Education  
Subject: New Graduate Course, ENE 690

The faculty of the Department of Engineering Education has approved the following new graduate ENE course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

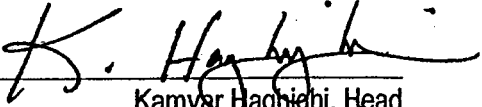
**ENE 690 Seminar in Engineering Education**

Sem. 1 and 2, Class 1, Cr. 0.

**Prerequisite:** Open to students in Engineering Education or by consent of instructor.

**Course description:** Seminar course covering a broad range of current discovery, learning, and engagement topics in Engineering Education. Seminar presentations by representatives from academia, industry, other external institutions, and members of the Purdue University community.

**Reasons:** This is a required course for the graduate programs in the Department of Engineering Education (ENE). This new course will also be of interest to graduate students in other Departments, Schools, and Colleges with engineering education or related interests. The intent of the course is to raise awareness of the opportunities and cutting edge research and programs in engineering education and provide networking opportunities for ENE graduate students within ENE and at national and international levels.

  
Kamyar Haghghi, Head  
Engineering Education

**APPROVED FOR THE FACULTY  
OF THE SCHOOLS OF ENGINEERING  
BY THE ENGINEERING  
CURRICULUM COMMITTEE**

ECC Minutes #25

Date 5/9/08

Chairman ECC Michael J. Attwells

**Supporting Document for a New Graduate  
Course**

**To:** Purdue University Graduate Council

**From:** Faculty Member: Rotating Faculty in ENE  
Department: Engineering Education  
Campus: West Lafayette

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

**Subject:** Proposal for New Graduate Course-Documentation  
Required by the Graduate Council to Accompany  
Registrar's Form 40G

For Reviewer's comments only  
(Select One)

Reviewer:

Comments:

**Contact for information if  
questions arise:**

Name: Cindey Hays (temporary)  
Phone Number: 494-3884  
E-mail: isenberg@purdue.edu  
Campus Address: ARMS 1321

Course Subject Abbreviation and Number: ENE 69000

Course Title: Research Seminar in Engineering Education

**A. Justification for the Course:**

- Provide a complete and detailed explanation of the need for the course (e. g., in the preparation of students, in providing new knowledge/training in one or more topics, in meeting degree requirements, etc.), how the course contributes to existing fields of study and/or areas of specialization, and how the course relates to other graduate courses offered by the department, other departments, or interdisciplinary programs.
- Justify the level of the proposed graduate course (50000- or 60000-level) including statements on, but not limited to: (1) the target audience, including the anticipated number of undergraduate and graduate students who will enroll in the course; and (2) the rigor of the course.

**B. Learning Outcomes and Method of Evaluation or Assessment:**

- Describe the course objectives and student learning outcomes that address the objectives (i.e., knowledge, communication, critical thinking, ethical research, etc.).
- Describe the methods of evaluation or assessment of student learning outcomes. (Include evidence for both direct and indirect methods.)
- Grading criteria (select from dropdown box); include a statement describing the criteria that will be used to assess students and how the final grade will be determined.

**Criteria**

- Identify the method(s) of instruction (select from dropdown box) and describe how the methods promote the likely success of the desired student learning outcomes.

**Method of Instruction**

**C. Prerequisite(s):**

- List prerequisite courses by subject abbreviation, number, and title.
- List other prerequisites and/or experiences/background required. If no prerequisites are indicated, provide an explanation for their absence.

**D. Course Instructor(s):**

- Provide the name, rank, and department/program affiliation of the instructor(s).
- Is the instructor currently a member of the Graduate Faculty?  Yes  No  
(If the answer is no, indicate when it is expected that a request will be submitted.)

**E. Course Outline:**

- Provide an outline of topics to be covered and indicate the relative amount of time or emphasis devoted to each topic. If laboratory or field experiences are used to supplement a lecture course, explain the value of the experience(s) to enhance the quality of the course and student learning. For special topics courses, include a sample outline of a course that would be offered under the proposed course.

**F. Reading List (including course text):**

- A primary reading list or bibliography should be limited to material the students will be required to read in order to successfully complete the course. It should not be a compilation of general reference material.
- A secondary reading list or bibliography should include material students may use as background information.

**G. Library Resources**

- Describe the library resources that are currently available or the resources needed to support this proposed course.

**H. Example of a Course Syllabus** (While not a necessary component of this supporting document, an example of a course syllabus is available, for information, by clicking on the link below, which goes to the *Graduate School's Policies and Procedures Manual for Administering Graduate Student Programs*. See Appendix K.)

[http://www.gradschool.purdue.edu/downloads/Graduate School Policies and Procedures Manual.pdf](http://www.gradschool.purdue.edu/downloads/Graduate%20School%20Policies%20and%20Procedures%20Manual.pdf)

**Justification for the Course:**

This is a required course for the graduate programs in the School of Engineering Education (ENE). This new course will also be of interest to graduate students in other Departments, Schools, and Colleges with engineering education or related interests. The intent of the course is to raise awareness of the opportunities and cutting edge research and programs in engineering education and provide networking opportunities for ENE graduate students within ENE and at national and international levels.

**Learning Outcomes and Method of Evaluation or Assessment:**

1. Develop an understanding of the field of Engineering Education in its widest possible applications.
2. Develop an appreciation of the various interdisciplinary research efforts being pursued  
Engineering Education has the potential to provide leadership/

**Criteria: (pick one)**

- Exams and Quizzes
- Papers and Projects
- Homework
- Laboratory Exercises
- Attendance and Class Participation
- Extra Credit Policies

**Method of Instruction: (pick one)**

- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance

**Prerequisite(s):**

Graduate standing, MS or PHD student in Engineering Education

**Course Instructor(s):**

This changes from semester to semester. Faculty within the School of Engineering Education who are a member of the Graduate Faculty

**Course Outline:****Week Typical Schedule:**

1. Introduction and discussion of the semester schedule.
2. Gregory Light, Northwestern University
3. Matthew Romoser, University of Massachusetts-Amherst
4. Krishna Madhavan, Clemson University



5. Nadia Kellam, University of Georgia
6. Victor Goldschmidt, past head of Purdue, Dept of Freshman Engineering
7. Yvonna Lincoln, Texas A&M University
8. Guest Presenter TBD
9. Guest Presenter TBD
10. Spring break - NO SEMINAR
11. Trevor Harding, CalPoly, San Luis Obispo
12. Guest Presenter TBD
13. Guest Presenter TBD
14. Cindy Atman, University of Washington
15. ENE 590 Presentations

**Reading List (including course text):**

None required

**Library resources:**

None required



Supporting Document for a New Graduate Course

To: Purdue University Graduate Council

From: Faculty Member: Kamyar Haghighi  
Department: Engineering Education  
Campus: Purdue University West Lafayette

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

Subject: Proposal for New Graduate Course-Documentation  
Required by the Graduate Council to Accompany  
Registrar's Form 40G

For Reviewer's comments only  
(Select One)

Reviewer:

Comments:

Contact for information if  
questions arise:

Name: Suzie Schilling

Phone Number: 45755

E-mail: suzie@purdue.edu

Campus Address: 1300 ARMS

Course Subject Abbreviation and Number: ENE 690

Course Title: History and Philosophy of Engineering Education

A. Justification for the Course:

- Provide a complete and detailed explanation of the need for the course (e. g., in the preparation of students, in providing new knowledge/training in one or more topics, in meeting degree requirements, etc.), how the course contributes to existing fields of study and/or areas of specialization, and how the course relates to other graduate courses offered by the department, other departments, or interdisciplinary programs.
- Justify the level of the proposed graduate course (50000- or 60000-level) including statements on, but not limited to: (1) the target audience, including the anticipated number of undergraduate and graduate students who will enroll in the course; and (2) the rigor of the course.

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- Describe the methods of evaluation or assessment of student learning outcomes. (Include evidence for both direct and indirect methods.)
- Grading criteria (select from dropdown box); include a statement describing the criteria that will be used to assess students and how the final grade will be determined.

Criteria Attendance and Class Participation



- Identify the method(s) of instruction (select from dropdown box) and describe how the methods promote the likely success of the desired student learning outcomes.

**Method of Instruction**

**C. Prerequisite(s):**

- List prerequisite courses by subject abbreviation, number, and title.
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