

TO: The Faculty of the College of Engineering

FROM: School of Electrical and Computer Engineering of the College of Engineering

RE: New Graduate Course, ECE 69200 Introduction to Graduate Research

The faculty of the School of Electrical and Computer Engineering has approved the following new course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

ECE 69200 Introduction to Graduate Research
Sem. 1,2, and 3 Research, Cr. 1-3.
Prerequisite by Topic: Graduate Standing

Description: Research-related activities supervised by an ECE faculty member to introduce newly admitted ECE graduate students to the methods and culture of doing research. Possible activities might include, but are not limited to, participation in group research meetings, association with an advanced graduate student, and individualized reading or project work. A description of the activity, approved by the faculty supervisor, must be filed with the ECE Graduate Office.

Reason: This course is intended strictly for newly admitted graduate students. Its purpose is to provide these students with an early opportunity to learn about methods and culture of research.



Michael R. Melloch, Associate Head
School of Electrical and Computer Engineering

Approved for the faculty of the Schools
of Engineering by the Engineering
Curriculum Committee

ECC Minutes 8 Date 11/23/15
Chairman ECC [Signature]

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

DEPARTMENT Electrical and Computer Engineering EFFECTIVE SESSION Spring 2016

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 ECE EXISTING: Subject Abbreviation _____
 Course Number 69200 Course Number _____
 Long Title Introduction to Graduate Research
 Short Title Introduction to Graduate Research
Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

TERMS OFFERED
Check All That Apply:
 Fall Spring Summer
 CAMPUS(ES) INVOLVED
 Calumet N. Central
 Cont Ed Tech Statewide
 Ft. Wayne W. Lafayette
 Indianapolis

CREDIT TYPE
 1. Fixed Credit: Cr. Hrs. _____
 2. Variable Credit Range: _____
 Minimum Cr. Hrs. 1
 (Check One) To Or
 Maximum Cr. Hrs. 3
 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: 3
 4. Credit by Examination
 5. Fees Coop Lab Rate Request
 Include comment to explain fee _____
 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 | | | | |
| Recitation | | | | |
| Presentation | | | | |
| Laboratory | | | | |
| Lab Prep | | | | |
| Studio | | | | |
| Distance | | | | |
| Clinic | | | | |
| Experiential | | | | |
| Research | | | | 100% |
| Ind. Study | | | | |
| Pract/Observ | | | | |

Cross-Listed Courses

| |
|--|
| |
| |
| |
| |

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
 Research-related activities supervised by an ECE faculty member to introduce newly admitted ECE graduate students to the methods and culture of doing research. Possible activities might include, but are not limited to, participation in group research meetings, association with an advanced graduate student, and individualized reading or project work. A description of the activity, approved by the faculty supervisor, must be filed with the ECE Graduate Office.

*COURSE LEARNING OUTCOMES:

| | | |
|---|---|--|
| Calumet Department Head _____ Date _____ | Calumet School Dean _____ Date _____ | Calumet Director of Graduate Studies _____ Date _____ |
| Fort Wayne Department Head _____ Date _____ | Fort Wayne School Dean _____ Date _____ | Fort Wayne Director of Graduate Studies _____ Date _____ |
| Indianapolis Department Head _____ Date _____ | Indianapolis School Dean _____ Date _____ | IUPUI Associate Dean for Graduate Education _____ Date _____ |
| North Central Department Head _____ Date _____ | North Central School Dean _____ Date _____ | North Central Director of Graduate Studies _____ Date _____ |
| <i>Michael J. R. Mellich</i> 9/23/15 _____ Date _____ | West Lafayette College/School Dean _____ Date _____ | Date Approved by Graduate Council _____ Date _____ |
| Graduate Area Committee Convener _____ Date _____ | Graduate Dean _____ Date _____ | Graduate Council Secretary _____ Date _____ |
| | | West Lafayette Registrar _____ Date _____ |

**Supporting Document to the Form 40G
for a New Graduate Course**

To: Purdue University Graduate Council

From: Faculty Member: ECE Graduate Committee

Department: Electrical and Computer Engineering

Campus: West Lafayette

Date:

Subject: Proposal for New Graduate Course

Contact for information if questions arise: Name: Matt Golden
Phone: 494-3374
Email: goldenm@purdue.edu
Address: EE Building, Room 135

Course Subject Abbreviation and Number: ECE 69200

Course Title: Introduction to Graduate Research

Course Description:

Research-related activities supervised by an ECE faculty member to introduce newly admitted ECE graduate students to the methods and culture of doing research. Possible activities might include, but are not limited to, participation in group research meetings, association with an advanced graduate student, and individualized reading or project work. A description of the activity, approved by the faculty supervisor, must be filed with the ECE Graduate Office.

Semesters Offered:

For the benefit of graduate student plan of study development, how frequently will this prototype be offered? Which semesters?
Each Semester

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 majors and/or concentrations, 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 (500- or 600-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.

- This course is intended strictly for newly admitted graduate students. Its purpose is to provide these students with an early opportunity to learn about methods and culture of research.

Use the following criteria:

Graduate Council policy requires that courses at the 50000 level in the Purdue system should be taught at the graduate level and meet four criteria: a) the use of primary literature in conjunction with advanced secondary sources (i.e., advanced textbooks); b) assessments that demonstrate synthesis of concepts and ideas by students; c) demonstrations that topics are current, and; d) components that emphasize research approaches/methods or discovery efforts in the course content area (reading the research, critiquing articles, proposing research, performing research). Such courses should be taught so that undergraduate students are expected to rise to the level of graduate work and be assessed in the same manner as the graduate students.

- Anticipated enrollment
 - Undergraduate 0
 - Graduate 50-75

B. Learning Outcomes and Method of Evaluation or Assessment:

ECE Graduate Learning Outcomes:

- a. Knowledge and Scholarship (thesis/non-thesis)
 - b. Communication (thesis/non-thesis)
 - c. Critical Thinking (thesis/non-thesis)
 - d. Ethical and Responsible Research (thesis) or Professional and Ethical Responsibility (non-thesis)
- List Learning Objectives for this course and map each Learning Objective to one or more of the ECE Learning Outcomes (a-d, listed above):

- Methods of Instruction
 - Research
- Will/can this course be offered via Distance Learning?
 - No.
- Grading Criteria

Grading criteria (select from checklist); include a statement describing the criteria that will be used to assess students and how the final grade will be determined. Add and delete rows as needed.

- Research
 - ▶ Describe the criteria that will be used to assess students and how the final grade will be determined:

C. Prerequisite(s):

List prerequisites and/or experiences/background required. If no prerequisites are indicated, provide an explanation for their absence. Add bullets as needed.

- Graduate Standing and Consent of Instructor

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? (If the answer is no, indicate when it is expected that a request will be submitted.) Add rows as needed.

| Name | Rank | Dept. | Graduate Faculty or expected date |
|-----------------|---|-------|-----------------------------------|
| All ECE Faculty | Assistant Professor, Associate Professor, Professor | ECEN | Yes |

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. **(This information must be listed and may be copied from syllabus).**

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.

- Primary Reading List
- Secondary Reading List

G. Library Resources

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

- None.

H. 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 Program*.

See Appendix K.

http://www.purdue.edu/gradschool/faculty/documents/Graduate_School_Policies_and_Procedures_Manual.pdf