PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: EPICS
EFFECTIVE SESSION Fall 2010

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

1. New course with supporting documents
2. Add existing course offered at another campus
3. Expiration of a course
4. Change in course number
5. Change in course title
6. Change in course credit type
7. Change in course attributes (department head signature only)
8. Change in instructional hours
9. Change in course description
10. Change in course requisites
11. Change in semesters offered (department head signature only)
12. Transfer from one department to another

PROPOSED:
Subject Abbreviation: EPICS
Course Number: 41100
Long Title: Senior Design Participation in EPICS
Short Title: Sr Design Particup EPICS

EXISTING:
Subject Abbreviation: 
Course Number: 

TERMS OFFERED:
Check All That Apply:
- Summer
- Fall
- Spring

CAMPUS(ES) INVOLVED:
- Calumet
- Cont Ed
- Tech Statewide
- Pts Wayne
- W. Lafayette
- Indianapolis

CREDIT TYPE:

- Fixed Credit: 3 Cr. Hrs
- Variable Credit: Minimum Cr. Hrs: 3
  Maximum Cr. Hrs: 6

COURSE ATTRIBUTES:

- Pass/No Pass Only
- Satisfactory/Unsatisfactory Only
- Repeatable
- Credit by Examination
- Special Fee

Schedule Type: Lecture 50%
Meetings Per Mos: 1
Weeks Offered: 16
% of Credit Allocated: 30%

COURSE DESCRIPTION (INCLUDES REQUIREMENTS/RESTRICTIONS):
See attached for course descriptions

COURSE LEARNING OUTCOMES:
See Attached

Column Department Head: Date
Ft Wayne Department Head: Date
Indiana State Department Head: Date
North Central School Dean: Date
West Lafayette Department Head: Date
West Lafayette College School Dean: Date
Indiana State Registrar: Date

OFFICE OF THE REGISTRAR
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE
(1000-4999 LEVEL)

DEPARTMENT: EPICS
EFFECTIVE SESSION: Fall 2010

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

- New course with supporting documents
- Add existing course offered at another campus
- Change in course attributes (department head signature only)
- Change in instructional hours
- Change in course description
- Change in course requisites
- Change in semesters offered (department head signature only)
- Transfer from one department to another

PROPOSED:
- Subject Abbreviation: EPIC
- Course Number: 41100
- Course Title: Sr Design Participation in EPICS

EXISTING:
- Subject Abbreviation
- Course Number

TERMS OFFERED:
- Spring
- Fall
- Summer

CAMPUS(ES) INVOLVED:
- K. Central
- West Lafayette

CREDIT TYPE:
1. Fixed Credit (How): [ ]
2. Variable Credit (Range): [ ]
   Minimum Cr Hrs: [ ]
   Maximum Cr Hrs: [ ]
3. Equivalent Credit: [ ] Yes [ ] No

SCHEDULE TYPE:
- Minutes Per Week: [ ]
- Meetings Per Week: [ ]
- Weeks Offered: [ ]
- % of Grade: [ ]

COURSE ATTRAIBUTES:
- Department
- Instructor
- Registration Approval
- Syllabus Title
- Credits
- For Full Time/Off Campus

COURSE DESCRIPTION (INCLUDE REQUIREMENTS/RESTRICTIONS):

See attached for course descriptions

COURSE LEARNING OUTCOMES

See Attached

Office of the Registrar
TO: The Faculty of the College of Engineering
FROM: The EPICS Curriculum Committee of the College of Engineering
RE: New Undergraduate Course, EPICS 41100 Senior Design Participation in EPICS

The curriculum committee of the EPICS program has approved the new course listed below. This action is now submitted to the Engineering Faculty with a recommendation for approval.

**EPICS 41100 Senior Design Participation in EPICS**
Sem. 1, 2, Lec 0, Lab 2, Cr. 1.
Prerequisite: IDE - Senior standing or
BSEE - ECE 20100 and 20200 and 20700 and 20800 and 25500 and 27000 and 30100 and 30200 and 31100 or
BSCmpE - ECE 20100 and 20200 and 20700 and 20800 and 25500 and 26400 and 27000 and 30100 and 30200 and 33700 and 36200 and 36400 and 36800

**Course Description:**
Continuation of EPICS courses (see EPICS 10100). Seniors using EPICS 41100 to fulfill capstone or design requirements where approved for their major may be required to satisfy additional course requirements specified by their degree program. EPICS 41100 is offered for 1 credit. The EPICS procedures manual provides information on expected relative workload for EPICS 41100 and EPICS 41200 students. Seniors are responsible for the management tasks of planning and organizing their team project activity. They are expected to contribute expertise from their discipline to the design of the team's projects throughout most of the design process phases of problem identification, specification development, design, production, and deployment. Seniors will also meet with the customer and mentor the first year, sophomores and juniors. May not be taken concurrently with EPICS 41200.

**Reason:**
To allow for an administrative process to track student participation in an EPICS senior design or capstone experience

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William Oakes, Director
EPICS Program

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

ECC Minutes [Signature]
Date 4/6/10
Chairman ECC [Signature]
SUPPORTING DOCUMENTATION

Recommended Reference(s): None.

Course Outcomes:

The sequence of EPCS 41100 Senior Design Participation in EPICS and EPCS 41200 Senior Design Participation in EPICS intended to be taken consecutively.
A student who successfully fulfills the course requirements with at least 3 credits of EPICS taken over 2 or more semesters will have demonstrated:

i. an ability to apply material from their discipline to the design of community-based projects
ii. an understanding of design as a start-to-finish process
iii. an ability to identify and acquire new knowledge as a part of the problem-solving/design process
iv. an awareness of the customer
v. an ability to function on multidisciplinary teams and an appreciation for the contributions from individuals from multiple disciplines
vi. an ability to communicate effectively with audiences with widely-varying backgrounds
vii. an awareness of professional ethics and responsibility
viii. an appreciation of the role that their discipline can play in social contexts

Lecture Outline:

Weeks Lectures
1-15 All EPICS students have a common lecture hour. Lecture topics include the design process, verbal and written communication, project management and planning, ethical and legal issues in engineering design, entrepreneurship, intellectual property, team dynamics and leadership and community involvement. Lectures are supplemented with session on specific technical topics relevant to the projects.
### Lab Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Major Course Milestones</th>
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<tbody>
<tr>
<td>2</td>
<td>Semester Project Plan</td>
</tr>
<tr>
<td>3</td>
<td>Personal Goals</td>
</tr>
<tr>
<td>4</td>
<td>Project Charters (new projects); Project Demonstration (continuing projects); Review of Design Notebooks; Delivery Review of Projects to be Delivered Week 4.</td>
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<tr>
<td>5 - 6</td>
<td>Continued Progress on Projects and Project Documentation.</td>
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<tr>
<td>7</td>
<td>Internal Design Review; oral or poster presentation.</td>
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<tr>
<td>8</td>
<td>Peer evaluation and self assessment; Review of Design Notebooks.</td>
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<tr>
<td>9 – 10</td>
<td>Continued Progress on Projects and Project Documentation.</td>
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<tr>
<td>11</td>
<td>Project Design Review; Delivery Review of Projects to be Delivered Week 11.</td>
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<tr>
<td>12 – 14</td>
<td>Continued Progress on Projects and Project Documentation.</td>
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<tr>
<td></td>
<td>Team Report; Review of Design Notebooks; Peer evaluation and self assessment</td>
</tr>
<tr>
<td>Final</td>
<td>Team Presentation</td>
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**Time Requirements** (as noted from the course syllabus)

Lecture is 50 minutes each week, but attendance requirements vary based on the number of credit hours you are registered for and if you are a new or returning student to EPICS. There are 5 required lectures for new students, and two required lectures for returning students. Students enrolled for one (EPCS 411) credit hour must accumulate at least 5 lecture credits. Students taking two (EPCS 412) credit hours are required to have a semester total of 10 lecture credits. Students with a scheduling conflict with the Monday lecture of EPICS should notify their advisor or TA. A list of all scheduled lectures and more information about making up missed lectures can be found at the EPICS course website.

The typical expectations regarding time spent on EPICS are as follows. But like other courses on campus, you may need to spend more time than is typical to achieve a similar outcome:

- 2 credit hours (EPCS 412) = average 5 hours/week outside the lecture and lab on your EPICS project
- 1 credit hour (EPCS 411) = average 3.5 hours/week on your project for the 10 weeks when you don’t attend lecture