

**TO:** The Faculty of the College of Engineering

**FROM:** The Faculty of the School of Biomedical Engineering

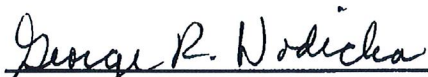
**RE:** New Graduate Course, BME 69699, BME Professional Practice Graduate Internship

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

**BME 69699 BME Professional Practice Graduate Internship**  
Offered Fall, Spring, Summer, 0 cr., Experiential  
Restrictions: Graduate Standing

**Description:** Graduate-level internship course in BME providing training in the professional skills that lead to career success in the biomedical field.

**Reason:** The recent growth in the biomedical industry in the United States has created a demand for well-trained biomedical engineers with strong professional skills. Our partner companies have encouraged the Weldon School to encourage our graduate students who are interested in industry positions to participate in experiential opportunities to increase their marketability and appeal to industry and to help them focus their research in a more deliberate way.

  
George R. Wodicka  
Dane A. Miller Head and Professor  
Weldon School of Biomedical Engineering

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

ECC Minutes #8 Date 12-13-16  
Chairman ECC 

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

DEPARTMENT Biomedical Engineering EFFECTIVE SESSION Spring 2017

**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

<b>PROPOSED:</b> Subject Abbreviation <u>BME</u> Course Number <u>69699</u> Long Title <u>BME Professional Practice Graduate Internship</u> Short Title <u>BME Prof Grad Intern</u> <small>Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)</small>	<b>EXISTING:</b> Subject Abbreviation _____ Course Number _____	<b>TERMS OFFERED</b> Check All That Apply: <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <b>CAMPUS(ES) INVOLVED</b> <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
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<b>CREDIT TYPE</b> 1. Fixed Credit: Cr. Hrs. <u>0</u> 2. Variable Credit Range: Minimum Cr. Hrs. _____ (Check One) To <input type="checkbox"/> Or <input type="checkbox"/> Maximum Cr. Hrs. _____ 3. Equivalent Credit: Yes <input type="checkbox"/> No <input type="checkbox"/> 4. Thesis Credit: Yes <input type="checkbox"/> No <input type="checkbox"/>	<b>COURSE ATTRIBUTES:</b> Check All That Apply 1. Pass/Not Pass Only <input type="checkbox"/> 2. Satisfactory/Unsatisfactory Only <input checked="" type="checkbox"/> 3. Repeatable <input checked="" type="checkbox"/> Maximum Repeatable Credit: <u>    </u> 4. Credit by Examination <input type="checkbox"/> 5. Fees <input checked="" type="checkbox"/> Coop <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Rate Request <input type="checkbox"/> 6. Registration Approval Type Department <input type="checkbox"/> Instructor <input checked="" type="checkbox"/> 7. Variable Title <input type="checkbox"/> 8. Honors <input type="checkbox"/> 9. Full Time Privilege <input checked="" type="checkbox"/> 10. Off Campus Experience <input checked="" type="checkbox"/> Use same standard \$400 fee for experiential courses
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Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Cross-Listed Courses
Lecture					
Recitation					
Presentation					
Laboratory					
Lab Prep					
Studio					
Distance					
Clinic					
Experiential	X				
Research					
Ind. Study					
Pract/Observ					

**COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):**  
Graduate-level internship course in BME providing training in the professional skills that lead to career success in the biomedical field.

**\*COURSE LEARNING OUTCOMES:**  
Students will be able to integrate theory, skills and principles taught in the core biomedical engineering curriculum with professional skills, awareness, and methodologies learned during the on-site internship.  
Students will be able to apply these integrated skills and principles to solve real-world problems.

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>Merge R. Wodicka 10/21/16</i> West Lafayette Department Head _____ Date _____	<i>Michael Y. Shinn 12/14/16</i> 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 _____

## **Detailed Graduate Course Proposal for Academic Review**

**To:** Purdue University Graduate Council

**From:** Faculty Member: Vickie Maris  
Department: BME  
Campus: West Lafayette

**Subject:** Proposal for New Graduate Course

**Contact for information  
if questions arise:** Name: Tammy Siemers  
Phone: 60294  
Email: [tsiemers@purdue.edu](mailto:tsiemers@purdue.edu)  
Address: MJIS 1021

**Course Number:** BME 69699  
**Course Title:** BME Professional Practice Graduate Internship  
**Short Title:** BME Prof Grad Intern

### **Course Description:**

Graduate-level internship course in BME providing training in the professional skills that lead to career success in the biomedical field.

## **A. Justification for the Course**

### **Justification of the need for the course**

The recent growth in the biomedical industry in the United States has created a demand for well-trained biomedical engineers with strong professional skills. Our partner companies have encouraged the Weldon School to encourage our graduate students who are interested in industry positions to participate in experiential opportunities to increase their marketability and appeal to industry and to help them focus their research in a more deliberate way.

### **Justification that course will be taught at a graduate level**

- There is currently a need for a grad level course for those students who would like to enrich their education through professional experiences. This internship course will provide a very important and highly desired option to superior students who are oriented towards developing stronger technical skills and a broader industrial knowledge base than they would develop without this exposure. By introducing such a course, the School of Biomedical Engineering will also be able to offer and track internship opportunities to our graduate student body as well as meet the course standards that ISS is requiring.
- This allows the students who are on internship for the degree program to stay an active Purdue student during their internship.
- As with other current courses set-up in the Office of Professional Practice and in other schools, students will enroll in a 0-credit hour experiential course during the internship with full time privileges. The approved professional practice fee will apply and a repeatable course will be set up so that students that are gone for more than a semester, can enroll for each semester they are gone.

### **Justification of the demand for the course**

- As experiential opportunities are becoming a necessity for students to become competitive in either a technical or research oriented career in industry, we are starting to see the number of graduate students participating in experiential opportunities increase.
- Anticipated enrollment
  - Undergraduate           0
  - Graduate                5-25 a year

### **Justification for online delivery**

N/A

**C. Prerequisite(s)**

- None

If no prerequisites, explain rationale:

- Permission of instructor will validate that student has an offer letter from an approved company. We will also require written approval from the graduate student's faculty advisor.

**D. Course Instructor(s)**

Name	Rank	School, dept., or center	Graduate Faculty or expected date
Vickie Maris	Director of Graduate Programs	BME	No

**E. Course Schedule or Outline**

Week	Topic(s)	Activity (optional)
Duration of Internship	<ul style="list-style-type: none"> <li>• Course work will consist of work-integrated learning that is directly related to the student's research development experiences</li> </ul>	<ul style="list-style-type: none"> <li>• As assigned by supervisor.</li> </ul>

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

There is no reading list required for this course.

**G. Library Resources**

Name of journal, proceedings, book, video, or other acquisition	Already in Libraries?
There are no library resources needed for this course	N/A

## **H. Course Syllabus**

The requirements for this course are outlined below. Students will be instructed by their supervisor as to what their internship requirements will be. We will require the following documentation as part of the course:

- Assignments as directed by internship supervisor (job description)
- Student offer letter
- Written consent from the student's faculty advisor
- Present the information gained during their experience to either their faculty advisor or the Graduate Program Office depending on their circumstances
- Provide an updated CV/Resume with new skills highlighted