TO: The Faculty of the College of Engineering  
FROM: The Faculty of the School of Biomedical Engineering  
RE: Changes to Undergraduate Course, BME 48900, Senior Design Project Lab

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

From: BME 48900 Senior Design Project Lab  
Terms offered: Fall, Lab 6, Cr. 2  
Restriction: Must be enrolled in the School of Biomedical Engineering (BME)  
Concurrent Prerequisite: BME 48800  

Description: The biomedical engineering design process is completed starting from a preliminary system design. Students will work with their teammates to implement (e.g. build, test, iterate and evaluate) a solution to address a biomedical engineering problem statement and meet the technical specifications set forth. The resulting project design is presented and evaluated through an oral presentation, laboratory demonstration, and a final written document.

To: BME 48901 Senior Design Project  
Terms offered: Fall, Lab 8, Cr. 3  
Restriction: Must be enrolled in the School of Biomedical Engineering (BME)  
Concurrent Prerequisite: BME 49000  

Description: The biomedical engineering design process is completed starting from a preparatory design course, BME 39000, through a preliminary system design, build and test in Senior Design Project, BME 48901. Students will work with their teammates to implement (e.g. build, test, iterate and evaluate) a solution to address a biomedical engineering problem statement and meet the technical specifications set forth. The resulting project design is presented and evaluated through an oral presentation, laboratory demonstration, and a final written document.

Reason: This change incorporates the material from the one credit preliminary senior project design, BME 48800, into the lab component. The original division of credits allowed flexibility across multiple semesters of senior design. However, our main mode is now the one semester senior design project lab, BME 48901, in the Fall. BME 48800 and BME 48900 will still be an option for students off sequence, but are no longer required in the plan of study.

George R. Wodicka  
Dane A. Miller Head and Professor  
Weldon School of Biomedical Engineering
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: Biomedical Engineering
EFFECTIVE SESSION: Fall 2017

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
- Expiration of a course
- Change in course number
- Change in course title
- Change in course credit/type
- 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:

<table>
<thead>
<tr>
<th>Subject Abbreviation</th>
<th>BME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>48901</td>
</tr>
<tr>
<td>Long Title</td>
<td>Senior Design Project</td>
</tr>
<tr>
<td>Short Title</td>
<td>Senior Design Project</td>
</tr>
</tbody>
</table>

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

TERMS OFFERED

- Summer
- Fall [X]
- Spring

CAMPUS(ES) INVOLVED

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

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 3

2. Variable Credit Range:
   Minimum Cr. Hrs.
   (Check One) To
   Maximum Cr. Hrs.
   Equivalent Credit: Yes
   No

3. Equivalent Credit: Yes

Schedule Type

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Recitation</th>
<th>Presentation</th>
<th>Laboratory</th>
<th>Lab Prep</th>
<th>Studio</th>
<th>Distance</th>
<th>Clinic</th>
<th>Experiential</th>
<th>Research</th>
<th>Ind. Study</th>
<th>Pract/Observ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes Per Mtg</td>
<td>Meetings Per Week</td>
<td>Weeks Offered</td>
<td>% of Credit Allocated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COURSE ATTRIBUTES: Check All That Apply

- 1. Pass/Not Pass Only
- 2. Satisfactory/Unsatisfactory Only
- 3. Repeatable
- 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

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

Restriction: Must be enrolled in the School of Biomedical Engineering (BME), Concurrent Prerequisite: BME 49000

The biomedical engineering design process is completed starting from a preparatory design course, BME 39000, through a preliminary system design, build and test in Senior Design Project, BME 48901. Students will work with their teammates to implement (e.g. build, test, iterate and evaluate) a solution to address a biomedical engineering problem statement and meet the technical specifications set forth. The resulting project design is presented and evaluated through an oral presentation, laboratory demonstration and a final written document.

*COURSE LEARNING OUTCOMES:

Students will have demonstrated the ability to: Integrate and apply knowledge and skills obtained in earlier course work with new concepts and practices essential to the design and testing of a system or device to meet desired needs. Implement the engineering design process and project management within the context of relevant design constraints. Effectively communicate skills in oral and written form, both individually and as part of a team. Explain/discuss realistic design constraints, including regulatory issues, societal influences, and ethical and professional responsibilities of biomedical engineers, as related to the engineering design process.

Calumet Department Head Date
Calumet School Dean Date

Fort Wayne Department Head Date
Fort Wayne School Dean Date

Indianapolis Department Head Date
Indianapolis School Dean Date

North Central Department Head Date
North Central Chancellor Date

West Lafayette Department Head Date
West Lafayette College/School Dean Date
West Lafayette Registrar Date

OFFICE OF THE REGISTRAR