Biomedical Engineering Undergraduate Research Form

Engineering or Science Elective Credit

FOR THE STUDENT: Please fill out this side of the form.

Research Topic: _____________________________________________________

<table>
<thead>
<tr>
<th>Biomedical Engineering</th>
<th>CRN</th>
<th>SE Units</th>
<th>EE Units</th>
<th>2 Quarters Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>199</td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

Estimate average student/faculty contact (hours/week) __________

Estimate average student research effort (hours/week) __________

Course Plan:

Part I: The Research Proposal

- Complete both sides of the BIM 199 form.
- Attach 1-2 page Research Proposal describing the background, aims, methods, and anticipated results of your proposed work. Include a statement of the significance of the work (why it is important to study).
- Obtain PI’s signature.
- Submit to UG advisor.
- Obtain CRN from UG advisor for Quarter 1 and 2, and register for 2 units each quarter.

Until Part II is successfully completed, this research will count as lab credit only.

Part II: The Presented Results

At the end of the stated 2 quarters, the results must be presented in one of the following formats:

a. 30-minute formal PowerPoint presentation at conference or lab meeting (not including questions).
   
b. 10-page double-spaced paper.
   
c. 15-minute formal PowerPoint presentation or conference-style poster presentation (e.g. URC) and 5-page double-spaced paper.

Obtain copy of BIM 199 form from UG advisor:

- Obtain PI’s 2nd signature as approval of work.
- Resubmit BIM 199 form with attached work to UG Advisor for UG Committee approval.

Once UG Committee approval is obtained, then 4 units of lab credit will be counted towards Engineering or Science elective.

Student: ____________________________ I.D. # _______________________ Major: ______________________

BIM 199 engineering elective units already completed (quarter and units)

Total number of units completed to date: (84 units required to take 199 course for degree credit)

Other special study courses this quarter. Department: ____________________________ Units:

The limitation on special study courses (99, 194H and 199) is 5 units per term with the exception of courses approved as part of the Independent Study Program. For 199, engineering elective units are required for 2 units/quarter for a total of 4 units maximum.
FOR THE INSTRUCTOR/PI: Please fill out this side of the form.

Instructor’s Name: _____________________________________________

Please select either Engineering or Science elective credit and check the appropriate boxes.

ENGINEERING ELECTIVE CREDIT ______ OR SCIENCE ELECTIVE CREDIT ______

To be considered for Engineering Elective credit, the completed report must demonstrate all of the following:

☐ A clear statement of engineering deliverables or engineering design objectives.
☐ An overview of existing engineering solutions in the field.
☐ Evidence of testing/validation and quantitative analysis of results.
☐ A clear statement of the impact of the completed work on society.

Describe the engineering content of the project below.

To be considered for Science Elective credit, the completed report must demonstrate all of the following:

☐ An overview of the scientific background underlying the project with appropriate literature citations.
☐ A clearly stated, testable hypothesis.
☐ Evidence of ability to design, analyze, and interpret the results of experiments.
☐ A clear statement of conclusions and their relation to the field at large.

<table>
<thead>
<tr>
<th>Part I</th>
<th>Part II</th>
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<tbody>
<tr>
<td>I certify that I have reviewed the attached Research Proposal and this project is suitable as 4 units of (check one): Engineering elective _____ Science elective _____</td>
<td>I certify that one of the following was completed at C- or better quality for 4 units of upper division engineering/science elective credit.</td>
</tr>
<tr>
<td>Instructor’s Signature Date</td>
<td>30-minute Powerpoint (not including questions)</td>
</tr>
<tr>
<td></td>
<td>10-page double-spaced paper</td>
</tr>
<tr>
<td></td>
<td>15-minute Powerpoint or poster presentation, and 5-page double-spaced paper</td>
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Subject to review by Undergraduate Committee

BME Undergraduate Committee’s Signature Date