DATE: January 14, 2008

FROM: David A. Weintraub, DUS, Department of Physics and Astronomy
Robert Scherrer, Chair, Department of Physics and Astronomy

TO: Karen E. Campbell, Chair, CEP

SUBJECT: revision of Minor in Physics

On behalf of the faculty of the Department of Physics and Astronomy, we request that the Minor in Physics be revised from:

Introductory physics sequence (116a-b, 117a-b, or 121a-b) 8-10
Physics 225a 3-4
Two of Physics 221, 223, 225b, 227a, 229a, a three-hour one semester directed study course (289) 6-7
Physics 250 1
Total Hours 18-22

...to...

Any first-semester calculus-based physics class with lab (116a+118a, 117a+119a, 121a) 4-5
Any second-semester calculus-based physics class with lab (116b+118b, 117b+119b, 121b) 4-5
Physics 225a 4
Two 200-level and/or 300-level Physics courses, one of which may be a three-hour one semester directed study course (289) 6
Physics 250 1
Total Hours 19-21

The reasons for these revisions are as follows:

1. students should be able to mix and match any of the first and second semester introductory, calculus-based physics classes without requiring a waiver
2. the lab for 116/117 has been a separate course number (118/119); the new rules explicitly recognize this change
3. students should not be constrained to take only the most elementary of our advanced classes (the rules for the current minor naively assume that students pursuing the minor have no knowledge of physics beyond what they learn in PHYS courses, when that is not always the case, especially with College of Engineering students who wish to earn a minor in Physics)
4. PHYS 225a is offered only as a four hour class (with lab); it is unclear why the rules for the minor list this course as either 3 or 4 hours of credit
Notes on course change proposals:

In parallel with this proposal to revise the rules for the Minor in Physics, the Department of Physics and Astronomy has submitted separate proposals to 1) eliminate PHYS 117a-b and 119a-b and 2) eliminate PHYS 225a and replace it with both PHYS 225 (which will be identical to the current 225a) and PHYS 225W (which will be identical to the current 225a, but with the addition of substantial writing instruction and content). Assuming one or both of these course change proposals are approved, and assuming the rules for changing the minor are also approved, we will implement the course changes into the rules of the minor without further review by the CEP. The rules for the minor, including the proposed course changes noted in this paragraph, would become:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Any first-semester calculus-based physics class with lab (116a+118a, 121a)</td>
<td>4-5</td>
</tr>
<tr>
<td>Any second-semester calculus-based physics class with lab (116b+118b, 121b)</td>
<td>4-5</td>
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<tr>
<td>Physics 225 or 225W</td>
<td>4</td>
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<tr>
<td>Two 200-level and/or 300-level Physics courses, one of which may be a three-hour one semester directed study course (289)</td>
<td>6</td>
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<tr>
<td>Physics 250</td>
<td>1</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td><strong>19-21</strong></td>
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