PHYSICS, BACHELOR OF SCIENCE WITH A CONCENTRATION IN BIOMEDICAL PHYSICS

Requirements

The Bachelor of Science (B.S.) degree in physics with concentration in biomedical physics is offered for students who intend to continue education in biological physics, medical physics or go to medical school. To help the prospective physics majors make optimal decisions, they are encouraged to speak with a departmental adviser as early as possible.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>PHYS 1950</td>
<td>PHYSICS GATEWAY COURSE</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2110 &amp; PHYS 1154</td>
<td>GENERAL PHYSICS I - CALCULUS LEVEL and GENERAL PHYSICS LABORATORY I</td>
<td>5</td>
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<tr>
<td>PHYS 2120 &amp; PHYS 1164</td>
<td>GENERAL PHYSICS-CALCULUS LEVEL and GENERAL PHYSICS LABORATORY II</td>
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<tr>
<td>PHYS 3250</td>
<td>MATHEMATICAL METHODS OF PHYSICS I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1950</td>
<td>CALCULUS I</td>
<td>5</td>
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<tr>
<td>MATH 1960</td>
<td>CALCULUS II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1970</td>
<td>CALCULUS III</td>
<td>4</td>
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<tr>
<td>PHYS 3300</td>
<td>INTRODUCTION TO BIOMEDICAL PHYSICS</td>
<td>3</td>
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<tr>
<td>PHYS 3450</td>
<td>CLASSICAL MECHANICS</td>
<td>3</td>
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<tr>
<td>PHYS 3600</td>
<td>THERMODYNAMICS AND STATISTICAL PHYSICS</td>
<td>3</td>
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<tr>
<td>PHYS 3750</td>
<td>ELECTRICITY AND MAGNETISM I</td>
<td>3</td>
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<tr>
<td>PHYS 3800</td>
<td>OPTICS</td>
<td>3</td>
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Advanced Laboratory

Select three of the following: 3

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHYS 3504</td>
<td>EXPERIMENTAL PHYSICS I</td>
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<tr>
<td>PHYS 3524</td>
<td>EXPERIMENTAL PHYSICS II</td>
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<td>PHYS 3544</td>
<td>EXPERIMENTAL PHYSICS III</td>
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<tr>
<td>PHYS 3564</td>
<td>EXPERIMENTAL PHYSICS IV</td>
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Senior Project and Physics Electives

In addition to the above requirements, a senior project (1-3 credits) is mandatory. The following two upper level electives are required for the total of 39 credits: 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>PHYS 4500</td>
<td>BIOLOGICAL PHYSICS</td>
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<tr>
<td>PHYS 4550</td>
<td>PHYSICS IN MEDICINE</td>
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</table>

Total Credits 53-55

1. Students taking a number of 2000-level mathematics courses may be permitted to waive PHYS 3250 or PHYS 3260.
2. Please see more details about the senior project in the “Other Information” portion of the physics section.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1190 &amp; CHEM 1194</td>
<td>GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY</td>
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