Minor in Computational Neuroscience

Computational neuroscience is becoming an important tool for neuroscientists to understand how complex brain circuits work, for example, what causes post-traumatic stress disorder. This intersection of engineering and neuroscience is allowing great advances in health care, manufacturing and communication.

**Required for all students:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE/BIO_SC 4580</td>
<td>Computational Neuroscience</td>
<td>4</td>
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</tbody>
</table>

Select 2 courses from the following list:

- BIO_SC 3700 Animal Physiology
- BIO_SC 4310 Physics in Cell and Developmental Biology
- BIO_SC 4500 Neurobiology
- BIO_SC 4560 Sensory Physiology and Behavior
- BIO_SC 4986 Neurology of Motor Systems
- BIO_SC 4988 Nerve Cells and Behavior
- BIOL_EN 4070 Bioelectricity
- BIOL_EN 4080 Engineering Computation
- PHYSCS 4310 Physics in Cell and Developmental Biology
- PHYSCS 4500 Computational Biological Physics

**For students majoring in Engineering, Physics, Math, Psychology or Statistics, choose 6 credits from the following list of courses:**

- BIO_SC 1010 General Principles and Concepts of Biology (with BIO_SC 1020) | 3 |
- BIO_SC 1500 Introduction to Biological Systems with Laboratory | 5 |
- BIO_SC 2300 Introduction to Cell Biology | 4 |
- F_W 1100 Introductory Zoology with Laboratory | 5 |
- PSYCH 2210 Mind, Brain, and Behavior | 3 |
- PSYCH 4210 Physiological Psychology | 3 |

**For students majoring in Biology choose 6 credits from the following list of courses:**

- PHYSCS 1220 College Physics II | 4 |
- PHYSCS 2760 University Physics II | 5 |
- INFOTC 1040 Introduction to Problem Solving and Programming | 3 |
- BIOL_EN 2080 Introduction to Programming for Engineers | 3 |
- Seminar for Undergraduates | 1 |