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.

Requirements

Required for all students:

- ECE/BIO_SC 4590 Computational Neuroscience 4

Select 2 courses from the following list:

- BIO_SC 3700 Animal Physiology
- 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
- PHYSICS 4310 Physics in Cell and Developmental Biology
- PHYSICS 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:

- PHYSICS 1220 College Physics II 4
- PHYSICS 2760 University Physics II 5
- INFOTC 1040 Introduction to Problem Solving and Programming 3
- BIOL_EN 2080 Introduction to Programming for Engineers 3

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