

The Neurobiology of Pain (3 units)

Bi 23 Section 01-11

Organizational Meeting: Wednesday, January 5th, at 4 PM in Braun 151

Instructor: Lindsay Bremner, Ph.D., x8337 email: lindsay@vis.caltech.edu

Course Description:

Pain is a complex experience, with external and internal factors such as danger and belief influencing the perception of a painful stimulus. Both sensory and emotional brain circuits are engaged during the neural processing of pain. Although acute pain is primarily beneficial and serves a protective function, chronic pain (which affects ~25% of adults in the US) can be debilitating and is a major target for medical research. In this class, we will first cover the neuroscience of acute pain processing, from the periphery to the central nervous system. We will then move on to topics such as individual differences in pain perception, the biology of the placebo effect, and current theories of and therapies for neuropathic pain.