

About this course (“What is this course like?”)

**Overview** – This course is explicitly *designed for non-science majors*. Its aim is to introduce participants to the always exciting and always new science of the brain (Neuroscience). It does so in the ways described below. If you wish to obtain a feeling for any one of the sections below simply mouse around this web site’s outlines to obtain a feeling for each of the course activities.

**Lecture** – works at providing an overall biological and cognitive behavioral feeling for the current state of knowledge of the brain in neuroscience. It does so largely by focusing on *particular instructive neural conditions* [ what is it like to have no pain receptors and be able to walk on hot coals? What is it like to have only one half (one hemisphere) of a brain? What is it like to not be able to form any new (long term) memories from yesterday onwards for the rest of one’s life (e.g. the case of H.M.) ]. Click on the *Lectures* link on the main page for more detail.

**Laboratory** – is structured so that you spend most of the semester learning and taking measurements on yourselves of brain related activity [ e.g. skin sweating (EDA) levels as a measure of emotional response in lie detection; evaluation of your ability to use biofeedback to control your own brain wave activity (EEG) ]. Click on the *Laboratory* link on the main page for more detail.

With these brain activity measuring techniques in hand, you then design and execute *your own investigation of a brain related question* that your lab group selects [ e.g. effects of 2 different types of music on emotional calmness (EDA), effects of video game “killings” on brain wave activity (EEG frequency) ] and then present your results as a brief formal scientific presentation to the class.

**Neuroethics** – is studied weekly in a one hour lab discussion session that encompasses the full range of current topics such as the still continuing stem cell debate, the biological question of when an individual’s life begins and when it is permissible to end it, strategies of increasing brain performance and the fairness of that (did you know that taking amphetamines raises SAT scores of non-ADD students by 50-100 points) and much more. Click on the *Issues in Neuroscience* link on the main page for more detail.

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