Mondays

Art, Science, and the Brain
Rebecca Ready, Psychology, ready@psych.umass.edu
We will explore the idea that some extraordinary artists had intuitive and deeply insightful knowledge about brain function long before scientists were able to catch up. We will read Jonah Lehrer’s book, Proust was a Neuroscientist, on this particular thesis and critically explore his ideas. Along the way, students will learn basics of neuroscience and about how the brain functions.

Scientific Background behind Targets for CO2 and Consequences for Sea Level Change
Julie Brigham-Grette, Geosciences, juliebg@geo.umass.edu
All global climate models forecast increases in global temperature with business-as-usual emissions of carbon dioxide (CO2) in the coming decades. Today, CO2 levels are 30% higher than at any time over the past 800,000 years. China just passed the US in total emissions but the US is second only to Australia in emissions per capita. While few debate the human cause of current warming, there is no consensus on what level of atmospheric CO2 societies should target given the technological challenges of meeting any chosen goal. The course will provide the background of the global carbon cycle, natural cycles in greenhouse gases and the basis for future projections of sea level rise. These debates will incorporate records of climate change, coastal management, western lifestyles, and energy. The aim of the course will be to better understand Earth’s influence on societies and society’s influence on the Earth as a system.

The Light Fantastic: Wonders of Biology under the Microscope
Alice Y. Cheung, Biochemistry and Molecular Biology, acheung@biochem.umass.edu
The title of the course is adopted from an article in Scientific America, Dec. 2008 issue, which we will start from the theme explored in this article of amazing images of living organisms and biomolecules seen through the light microscope. Students will be asked to research on selected images. For instance, an image of DNA in water is one of the images shown. From this, we can start to discuss the structure of DNA and its function. Another example is a “Rainbow Zebrafish” that shows how different fluorescent proteins are used to follow complex neural pathways. A third example is an image of pollen on the stigma of a plant, the first step that leads to fertilization, which is also the subject of research in our laboratory. We will expand from these images to discuss basic molecular and cell biology behind them.

Tuesdays

Sleep On It!
Rebecca M. C. Spencer, Psychology, rspencer@psych.umass.edu
Healthy sleep habits are essential to a college-student’s performance and health. The transition from high school to college is a critical time to be informed on the need for sleep and strategies for healthy sleep- students are leaving a monitored sleep routine for independence over bedtime, waking, and even napping. In this class, we will explore the benefit of sleep on memory, defending the need for sleep over the “all-nighter”. Sleep also enhances immune function making students who sleep less susceptible to colds and the flu. College students are also apt to drive following reduced sleep, putting them at risk for accidents. This class will educate freshman on their need for healthy sleep habits throughout their college career and thereafter. At the same time, this course will introduce students to the disciplines within Psychology: Cognitive, Clinical, Developmental, and Social Psychology and Neuroscience are all exemplified in the field of sleep.
**Wednesdays**

**Comic Books and Graphic Novels**

Sally Galman, School of Education, sally@educ.umass.edu

Over the last decade, the related text genres of the comic book and graphic novel have experienced increasing visibility, popularity, and—in academic and artistic contexts—text legitimacy. However, the boundaries for their respective genre definition and the criteria for aesthetic and literary evaluation remain the subject of some debate. In this course, students will 1) learn the history and theory behind text genres that combine contiguous text and image, 2) read and reflect upon a selection of modern classic works from a diverse body of authors/artists, and 3) hone their creative and critical thinking and writing skills in designing their own final paper or project. Guided by the instructor, who is also an award-winning cartoonist, students will explore research, literary, and artistic applications of comics and graphic novels in the context of their proposed majors and areas of study and interest.

**Crime Scene Chemistry: The truth and lie behind CSI**

Jeanne A. Hardy, Chemistry, hardy@chem.umass.edu

The goal of this course is to examine the validity of the chemistry portrayed in forensics TV programs like CSI or Bones. In the first week we will dissect an episode of CSI in which a beautiful model is poisoned with cyanide-laden lip gloss to determine if this type of crime is really possible and whether the physiological effects portrayed and rate of death are realistic. In subsequent weeks students will select and provide their favorite clip from CSI or any other forensics TV or movie. Each student will be responsible for presenting the clip and nucleating the discussion of the chemistry shown in the clip. Together we will analyze the chemical principles in the program to determine how accurate the portrayal of the situation is. This course is perfect for forensics-TV lovers, particularly those who are interested in the connections to chemistry!

**Live Art and Audience**

Jenny Spencer, English, jspencer@english.umass.edu

An interactive interdisciplinary exploration of live performance and the dynamics of audience reception. Students introduced to artists such as Bill T. Jones, Anna Deveare Smith, and Gomez-Peña, each of whom uses the performing arts as a way of knowing, an approach to community building, and a form of political action. Students will also read, attend, and discuss plays by UK playwright/performer Tim Crouch (in residence in March). In-class exercises and short writing and performance assignments.

**Thursdays**

**Looking at Art; Listening to Artists**

Laura Holland, Art, lholland@art.umass.edu

How do we “read” and interpret visual art? How do we write about what we see? How do artists write about their own work and articulate their intentions and inspirations? To explore these questions, students will visit local galleries, formulate their approaches to looking at artwork, articulate their responses to artwork in writing and in discussion sessions, read about approaches to art criticism, have opportunities to meet with artists and/or curators, develop questions to address to an artist or curator, conduct interviews concerning the artist's/curator's work, and write profiles based on those interviews.

**Wild Child**

John J. McCarthy, Linguistics, jmccarthy@linguist.umass.edu

What happens when a child is raised by animals or in extreme isolation? This is the stuff of legend (Romulus and Remus), of history (Victor of Aveyron and Kaspar Hauser), and of the present day (a girl named Genie in Los Angeles). This course looks at many facets of the wild child phenomenon: the effect of extreme deprivation on linguistic, cognitive, and social development; the reasons for public and scientific fascination with the wild child; and images of the wild child in film (Truffaut's The Wild Child, Herzog's The Enigma of Kaspar Hauser, Sehr's Kaspar Hauser, Nell with Jodie Foster, Mockingbird Don't Sing), a documentary (NOVA: Secret of a Wild Child), a play (Peter Handke's Kaspar), and a graphic novel (Diane Obomsawin's Kaspar).