Harvard Summer Program in Trento, Italy

June 11 – August 6, 2011

General Information
This 8-week, interdisciplinary program at the Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy, provides students a unique opportunity to study the mind/brain. Taught by neuroscientists and cognitive scientists from Harvard, Wellesley, and the University of Trento, the courses include lectures as well as hands-on laboratory sessions (e.g., neuroimaging demonstrations, discussion sections). The program also provides room and board in Trento, Italy. Students will have the opportunity to participate in program activities which include hikes in the Italian Alps, day and weekend trips to Verona, Venice, and Lake Garda. Courses run Monday through Thursday; Fridays are dedicated to program outings and student activities. On free weekends, students will have the opportunity to organize independent travel and activities.

Faculty
John A. Assad, PhD, Professor of Neurobiology, Harvard Medical School
Alfonso Caramazza, PhD, Daniel and Amy Starch Professor of Psychology, Harvard University; Director, CIMeC, University of Trento
Giorgio Coricelli, PhD, Assistant Professor of Economics, University of Southern California; CIMeC, University of Trento
Jennifer S. Lerner, PhD, Professor, Harvard Kennedy School of Government
Marc J. Tetel, PhD, Associate Professor of Neuroscience, Wellesley College

Courses
Students will receive course credit from the Harvard Summer School and can request an official transcript of their marks two weeks after the end of the program. All students take the introductory course offered in the first half of the program (MBB S-101). For the second half, they choose one of the two in-depth courses (MBB S-93 and S-94). All instruction is in English.

MBB S-101. Windows into the Structure of the Mind/Brain (Assad/Caramazza)
The mind/brain can be studied at multiple levels of description and with various methodologies. The course reviews methods from psycholinguistics to neuroimaging, and from computational modeling to clinical neuroscience. Each method is illustrated through laboratory demonstrations. This course is mandatory for all program participants, and it is meant to provide the neuroscience and cognitive science foundation necessary to explore specific topics in the field.
Pre-requisites: None.

MBB S-93. Mind, Brain, and Behavior in Decision Making (Coricelli/Lerner)
Economists have produced remarkable theories describing how people make decisions, but, until recently, their approach treated the human brain as a “black box.” The introduction of neuroscience tools (brain imaging, neuropsychological studies, single-cell recording) and the discovery of evidence about the importance of emotional and social states in economic decision-making are revealing new perspectives in the field of behavioral economics. This new discipline combines economics, psychology, and neuroscience in order to study decision-making in individual and social contexts. Students will learn about economic decision-making principles (e.g., choice under risk and uncertainty, intertemporal choices, bargaining, cooperation and competition); lectures and laboratory sessions will cover contemporary theories of behavioral economics as well as the application of methods from neuroscience (e.g., single-cell recording, fMRI, TMS) to the study of decision-making.
Pre-requisite: MBB S-101.

MBB S-94. Hormones, Brain, and Behavior (Tetel)
Hormones act throughout the body to coordinate basic functions such as development, differentiation and reproduction. This course will investigate how hormones act in the brain to regulate behavior. Students will study how steroid hormones regulate a variety of functions, including sexual differentiation of the brain during development, reproductive behavior and physiology, homeostasis and stress. In addition, the course will explore how hormones influence complex events such as sexual orientation, cognition and mental health. Students will read original research articles and discuss multi-disciplinary approaches to understanding the influence of hormones on brain and behavior.
Pre-requisite: MBB S-101.

Application deadline: February 4, 2011 (post-mark deadline for application)

For more information about the courses, activities, costs, financial aid, or to obtain an application, please visit our website (http://www.cimec.unitn.it/hss) or e-mail trento@wjh.harvard.edu.