RICE | SUSANNE M. Glasscock School of Continuing Studies

The Future of Neuroscience

Course Details

Section Dates: Six Thursdays, October 1-November 5, 7-8:30 p.m.
Fee: If registering by September 17: $170 After September 17: $180 For Rice alumni: $162 **CEUs:** 0.9

Co-Sponsors: Baylor College of Medicine Department of Neuroscience, Rice University Neuroscience Program, University of Houston Department of Electrical and Computer Engineering

Amputee using a bionic hand controlled directly by her brain activity. Credit: Carlos Landa, University of Houston.

Intelligence, imagination, consciousness, perception, emotion and other fundamental aspects of the human experience all originate from our brains and nervous systems. With billions of neurons and trillions of connections, the brain poses many challenges to researchers who seek to understand its role in development, learning, memory, aging, disease, injury, and physical and emotional healing. While much remains to be discovered, the field of neuroscience is developing quickly, with recent advances in biomedical engineering, robotics and other research and intervention technologies. In this interdisciplinary lecture series, Rice University, Baylor College of Medicine and University of Houston neuroscientists will shed light on these and other developments and consider what the future may hold for treating brain-related diseases and injuries and for deepening our understanding of the brain and the human experience.

Course Schedule

OCTOBER 1. **Big Questions in Neuroscience: The Future of the Field. David Dickman, Ph.D.**, director of the Rice University Neuroscience Program, adjunct professor in the Rice University Department of Psychology and professor and Vivian L. Smith Endowed Chair in Neuroscience in the Baylor College of Medicine Department of Neuroscience.

OCTOBER 8. **The Brain and Illusions. James Pomerantz, Ph.D**., professor in the Rice University Department of Psychology.

OCTOBER 15. **Rehabilitation Robotics: Innovations in Brain-Machine Interfaces. Jose Luis Contreras-Vidal, Ph.D.**, Hugh Roy and Lillie Cranz Cullen University Professor in the Department of Electrical and Computer Engineering and biomedical engineering director of the Laboratory for Noninvasive Brain-Machine Interface Systems at the University of Houston.

OCTOBER 22. **Understanding Brain Development: New Research Insights. Andrew Groves, Ph.D.**, professor and co-director of the Program in Developmental Biology at Baylor College of Medicine Department of Neuroscience.

OCTOBER 29. **Engineering Minds: Neural Engineering of Memory. Caleb Kemere, Ph.D.**, assistant professor in the Rice University Department of Electrical and Computer Engineering and Department of Bioengineering.

NOVEMBER 5. **The Aging Brain: Promising Developments in Alzheimer's Research. Joanna Jankowsky, Ph.D.**, assistant professor in the Baylor College of Medicine Department of Neuroscience.