

2012-2013 University Seminars

Biophysics and Computational Biology

Conveners: Chen Zeng, Department of Physics; Weiqun Peng, Department of Physics; Guanyu Wang, Department of Physics

This seminar will present cutting-edge applications of fundamental physical principles to prevailing biological problems. The aim is to create an environment for faculty to communicate, explore collaboration opportunities, and connect GW with other research institutions in the region.

The Civil War Project

Convener: Leslie Jacobson, Department of Theatre & Dance and Classical Acting MFA Program

This seminar will explore innovative ways that artists and scholars can collaborate to transform complex ideas into stories which audiences will find compelling and illuminating to watch in performance. Bringing together faculty and students from a variety of disciplines, the seminar participants will plan and execute activities which support the Civil War Project, a creative partnership between GW and Arena Stage to create new and significant performance pieces exploring the American Civil War and the concept of Civil War as played out around the world, now and in the past. Seminar outcomes include: (1) developing a set of interdisciplinary courses exploring the American Civil War, and other civil wars elsewhere in the world, to be offered in AY 2013-14 and 2014-15; (2) planning a series of special events open to the public, led by scholars and artists from GW and other places around the country, inspired by project themes; (3) creating workshops which explore the ways that scholars and artists can work together in the rehearsal studio; (4) developing procedures for awarding special commissions for student-generated, and faculty-generated interdisciplinary performance works on project themes.

Designing Writing Curricula for Student Veterans: Best Practices & Policies

Convener: Derek Malone-France, University Writing Program

This seminar will explore the use of writing as an important mechanism of social reintegration, emotional and psychological recovery, and personal expression for military veterans. "Veterans' writing programs" of various sorts have existed for decades. However, recent developments in our clinical understanding of the psychological dynamics associated with military deployments, combat experiences, and emotional and neurophysiological trauma are beginning to drive innovative new research that more rigorously examines the contexts and practices of such programs. Our seminar cohort will examine relevant academic, psychological, cultural, institutional, and legal issues and formulate a set of general guidelines for the responsible development of effective veterans' writing curricula within higher education.

Energy & Sustainability

Conveners: Lisa Benton-Short, Department of Sustainability; Peter LaPuma, Department of Environmental & Occupational Health; Jerome Paulson, Department of Pediatrics

The seminar will continue that progress and advance our mission to be the authority on sustainability policy and governance throughout and beyond the university. This university seminar will examine energy and energy production from numerous perspectives: environmental, social and economic—all of which are central to sustainable energy and developing good energy policy. Sustainable energy is therefore a central issue in being responsible to future generations while providing for today's needs. The broad objective is for GW to become a highly sought-after neutral “convener” for these critical discussions in energy that will involve students, faculty, policy makers and practitioners

GWIMS Seminar on Math Application

Conveners: Yongwu Rong, Department of Mathematics; E. Arthur Robinson, Department of Mathematics; Yinglei Lai, Department of Statistics; Svetlana Roudenko, Department of Mathematics

The Mathematical application Seminar is a university seminar organized by GWIMS (George Washington Institute for Mathematical Sciences). It aims at interactions between mathematics and other fields. In addition to traditional talks hosted by GWIMS, we will also organize "traveling seminar talks" hosted by various participating departments. Other related activities by GWIMS will include the GWIMS competition which will provide seed grants to support interdisciplinary collaborations involving mathematical sciences, and GWIMS Coffee Hours which will help to create informal interactions. Our seminar conveners believe these activities together will act as a major driving force for interdisciplinary collaborations involving mathematics. In addition, it could serve as a model for other interdisciplinary collaborations across the campus, a major theme in the emerging GW Strategic Plan. The seminar's website is <http://home.gwu.edu/~rong/mas.htm>.

mHealth Research

Conveners: Lorien Abrams, Department of Prevention & Community Health; Richard Katz, Department of Cardiology; Bianca Frogner, Department of Health Services, Management & Leadership

The growth of the field of mHealth--using mobile phones to promote health--has been recognized as an important development for public health and medicine. The seminar in mHealth has three aims. (1) Providing a forum to address pressing questions related to the design, evaluation and dissemination of mHealth programs; (2) Providing the opportunity for researchers across GW in public health, medicine, psychology, engineering and others to come together to build common research projects and research infrastructure for mHealth at GW. (3) Providing a forum to examine existing curricular offerings in mHealth across GW and consider the development of a certificate program in mHealth at GW.

Modernity & Its Discontents

Conveners: Theo Christov, Department of History; Mark Ralkowski, Department of Philosophy; William Winstead, Department of Political Science; Libby Anker, Department of American Studies

The principal aim of the seminar is to look at modern thought from this “therapeutic” perspective. If modernity is afflicted with a sickness, what are the causes, and how are those causes unique to the modern world? How, if at all, were they brought on by the rise of modernity (e.g., by the Reformation’s emphasis on inner, spiritual freedom, which laid the foundations for modern individualism; the scientific revolution’s so-called “disenchantment of the earth”; and the newly emerging notion of society as a product of human choice and contractual arrangements, rather than preordained by a single fundamental order structuring nature and society)? And, perhaps most importantly, what should we do? What therapeutic promise, if any, does modern and late modern thought offer alongside its pessimistic assessment of our current predicament? These questions and their answers urge us to reexamine every aspect of the modern period. And for that reason, they have the potential to change the way we approach our teaching. This university seminar thus serves the twofold purpose of (i) generating a faculty conversation across humanistic disciplines and (ii) inviting student engagement on topics that they will have already started to study in the classroom.

Neuroscience of Language & Music

Convener: James Mahshie, Speech & Hearing Science

This seminar seeks to demonstrate how interdisciplinary research can bridge diverse fields of scholarship. Language on the one hand might seem well suited to neuroscientific study, but music might seem less well suited to neuroscience methods. Yet, in cognitive neuroscience, research is ongoing to explain, for example, how both music and speech are processed by the auditory periphery, brainstem, and cerebral cortex. Such research efforts are complemented by the emerging interest in the cognitive understanding and neural processing of music among music scholars.

Nuclear Energy: Science, Technology, Safety, Security, Non-Proliferation & Sustainability

Convener: Bill Briscoe, Department of Physics

The world is faced with the dilemma of meeting the demand for more sustainable and CO₂-free or low sources of energy, while taking into consideration the national and global issues of safety, security, and economic viability. There is a need to educate the public through outreach and improved scientific literacy, as well as to educate regulators, enforcers and policy makers. This series of seminars will address these concerns by bringing together the combined talent of GW and outside experts in nuclear science and related areas through an integrated approach highlighting issues of critical importance within the nuclear arena. The overall goal will be to provide students, and indeed all participants, with a global perspective of nuclear issues and the intricate relationship between science and policy that is in many ways, unique to nuclear energy.

Reframing Risk/Re-imagining Resilience: Strengthening Interventions for Children & Families Living in Urban Poverty

Convener: Lionel Howard, Department of Educational Research

The principal observation guiding this seminar is that while some individuals living in urban poverty conform to predominating risk trajectories, others do not. It seeks to identify and better understand the unique factors (attitudes, program/community supports, child characteristics, family structures, social policies, educational strategies, therapeutic interventions, etc.) that contribute to the resilience of those individuals not conforming to predictive models of risk. Likewise, among those who have demonstrated evidence of negative outcomes, it seeks to develop an understanding of what might be mediating and/or moderating the consequences of their situations—identifying potential resiliency factors which might be bolstered for improved child and family outcomes.

Spanish & Latin American Writers Series

Convener: Sergio Waisman, Department of Romance, German, Slavic Languages and Literature

The Spanish & Latin American Writers Series invites three to four leading Spanish-speaking writers per year to GW. Invited writers teach a class and give a reading or presentation, with many opportunities for discussion and dialogue with our students and faculty, as well as the broader Spanish-speaking community. Invitations are often coordinated with neighboring universities and DC institutions (e.g., the embassy of a given writer's home country). Translation is sometimes provided for the presentations, but the class and events are always held in Spanish. This contributes to making GW a more multilingual and international campus, especially in the areas of literature and culture.

Series on the Future of STEM Education at GW

Conveners: Hartmut Doebel, Department of Biological Sciences; Jerry Feldman, Department of Physics; Rahul Simha, Department of Computer Science

The seminar is a series of colloquia and workshops on Science, Technology, Engineering, and Mathematics (STEM) education that will lead to specific outcomes for STEM education at GW. The idea is to invite nationally recognized leaders in STEM education to campus over a three-year period to talk about the future of STEM education (both content and pedagogy) and to brainstorm with us in answering questions like:

- What competencies and interdisciplinary strengths should we expect of STEM majors?
- What would be a good Honors program for STEM majors?
- What are the most effective STEM pedagogies and what facilities are needed for implementation?
- What pedagogies would make best use of the new teaching spaces in the SEH?
- How should STEM literacy be defined and taught to non-STEM majors?