2014 Research Projects

WattTime: Building Virtual Wind Power Plants through Econometrics
Agricultural and Resource Economics
Gavin McCormick, Graduate Mentor
Ivanna Patton, Undergraduate Mentor
Meredith Fowlie, Faculty Adviser

Ancient Human Dietary Histories: Stable Isotope Analysis of Skeletal Tissues from a Prehistoric Colombian Population
Anthropology
Melanie J. Miller, Graduate Mentor
Trent Trombley, Undergraduate Mentor
Sabrina Agarwal, Faculty Adviser

Architecture
Ginetzt Wessell, Graduate Mentor
Soia Airaghi, Undergraduate Mentor
Margaret Crawford, Faculty Adviser

Sensory Information Predictive of Reward Is Broadcast to Distant Cortical Areas
Biophysics
Kelly Clancy, Graduate Mentor
Kathryn McClain, Undergraduate Mentor
Daniel Feldman, Faculty Adviser

Public School Closure and Neighborhood Change: An Analysis of Newspaper Coverage in Twelve Cities
City and Regional Planning
Ariel H. Bierbaum, Graduate Mentor
Jessica Rodrigues, Undergraduate Mentor
Carolina Reid, Faculty Adviser

Identifying Fire-Induced Changes in Vegetation and Hydrology in Yosemite’s Illilouette Creek Basin
Civil and Environmental Engineering
Gabrielle Boisramé, Graduate Mentor
Miguel Naruño, Undergraduate Mentor
Sally Thompson, Faculty Adviser

Household Characteristics of an African Community: Ibo Island, Mozambique
Demography
Sara Lopes, Graduate Mentor
Jane Liang, Undergraduate Mentor
Ronald Lee, Faculty Adviser

Critical Research and Youth Community Engagement: A Youth Participatory Action Research Project
Education
Dinorah Sánchez Leza, Graduate Mentor
Antonella Higa, Undergraduate Mentor
Lisa Garcia Bedolla, Faculty Adviser

Restoring Socialism: The New Beginning Group and Democratic Renewal on the German Left, 1930-1970
History
Terence Renaud, Graduate Mentor
Chelsea Clark, Undergraduate Mentor
Martin Jay, Faculty Adviser

Behavioral Function of Flashing in Ctenoides ales: “Disco Clams”
Integrative Biology
Lindsey Dougherty, Graduate Mentor
Alexandra Niebergall, Undergraduate Mentor
Roy Caldwell, Faculty Adviser

Seeking Asylum in the United States: An Empirical Study of Disparities at the Federal Appellate Level
Jurisprudence and Social Policy
Mary Hoopes, Graduate Mentor
Bo Hyun (Sophie) Paeng, Undergraduate Mentor
Leti Volpp, Faculty Adviser

Evaluating Wear Damage Response of Polycarbonate Urethane for Joint Replacements
Mechanical Engineering
Hannah Gramling, Graduate Mentor
Amrita Srinivasan, Undergraduate Mentor
Lisa Pruitt, Faculty Adviser

Functional Effects of Interacellular MicroRNA Transfer via Exosomes
Microbiology
Matthew Shurtleff, Graduate Mentor
Jessica Li, Undergraduate Mentor
Rand Schekman, Faculty Adviser

Bacterial Signals Regulate Multicellular Development in the Choanoflagellate, S. rosetta
Molecular and Cell Biology
Arielle Woznica, Graduate Mentor
Sruhti Mantri, Undergraduate Mentor
Nicole King, Faculty Adviser

The Role of Ventral Pre-Motor Cortex in Brain-Machine Interface Control
Neuroscience
Helene Moorman, Graduate Mentor
Rahul Nadkarni, Graduate Mentor
Arielle Woznica, Graduate Mentor

The Impact of Biotech-Pharmaceutical Alliances on Drug Regulation
Public Health
Courtnee Hamity, Graduate Mentor
Angela Dai, Undergraduate Mentor
Joan Bloom, Faculty Adviser

Transforming the Terms of the Abortion Debate: Human Rights and the Colombian Constitutional Court
Rhetoric
Alisa Sánchez, Graduate Mentor
Natalia Reyes, Undergraduate Mentor
Marianne Constable, Faculty Adviser

From Cell Block to City Blocks: Experiences of Incarceration among People with Mental Disorders
Social Welfare
Leah Jacobs, Graduate Mentor
Guadalupe Barron Vargas, Undergraduate Mentor
Valerie Shapiro, Faculty Adviser

Fracking and Fields: The Social Determinants of Fracking Activities across US Communities
Sociology
Daniel Klatza, Graduate Mentor
Richard Liaw, Undergraduate Mentor
Heather Haveman, Faculty Adviser

Relationship between Foveal Cone Structure and Visual Function in Patients with Inherited Retinal Degenerations
Vision Science
Kavitha Ratan, Graduate Mentor
Junwei Yu, Undergraduate Mentor
Austin Rouzer, Faculty Adviser
2013 SMART Research Projects

**Vibrio cholerae Design of Siderophores**
Department of Chemistry
Benjamin Allred, Graduate Mentor
Christian Villanueva, Undergraduate Mentee
Kenneth Raymond, Faculty Adviser

**Comparing Methods for Extraction of High Quality Genetic Material from Preserved Human White Blood Cell Samples**
School of Public Health
Sarah Daniels, Graduate Mentor
Brenda Yee, Undergraduate Mentee
Luoping Zhang, Faculty Adviser

**Public and Private Provision of Primary Healthcare Services in Chile: A Qualitative Approach**
School of Public Health
Soledad Martinez-Gutierrez, Graduate Mentor
Alexis Captainian, Undergraduate Mentee
William Dow, Faculty Adviser

**Graphene Calisthenics: Modeling the Polymer-Induced Graphene Stretching for Next Generation Electronics**
Department of Physics
Kacey Meaker, Graduate Mentor
Mandy Huo, Undergraduate Mentee
Michael Crommie, Faculty Adviser

**Bones of Contention: The War Dead and the Making of Modern China**
Department of History
Linh Vu, Graduate Mentor
KaHo Lam, Undergraduate Mentee
Alexander Cook, Faculty Adviser

**Assembling Gold Nanoparticles Using DNA**
Department of Chemistry
Jessica Smith, Graduate Mentor
Sarah Hull, Undergraduate Mentee
Paul Alivisatos, Faculty Adviser

**Analyzing Social Media Data for Democratic Practices in Social Movement Organizations**
Department of Sociology
Jen Schradie, Graduate Mentor
Maggie Hardy, Undergraduate Mentee
Kim Voss, Faculty Adviser

**Comparative Histories of Mexico-U.S. Migration: How Two Communities Confront Globalization**
Department of Sociology
Abigail Andrews, Graduate Mentor
Johanna Torres, Undergraduate Mentee
Raka Ray, Faculty Adviser

**Objects and Status: The Historical Study of Material Culture in Early Imperial China**
Department of History
Luke Habberstad, Graduate Mentor
Spencer Smith, Undergraduate Mentee
Michael Nylan, Faculty Adviser

**Molecular Insights into Viral DNA Degradation by a Bacterial Immune System**
Department of Chemistry
Samuel Sternberg, Graduate Mentor
Chantal Guegler, Undergraduate Mentee
Jennifer Doudna, Faculty Adviser

**Maternal Mortality and Abortion Law Liberalization in Ethiopia: The Potential Roles of Midwives in Implementation**
School of Public Health
Sarah Jane Holcombe, Graduate Mentor
Alvin Chan, Undergraduate Mentee
Ann Keller, Faculty Adviser

**Analyzing Social Media Data for Democratic Practices in Social Movement Organizations**
Department of Sociology
Jen Schradie, Graduate Mentor
Maggie Hardy, Undergraduate Mentee
Kim Voss, Faculty Adviser

**The Great Fire of Fort-de-France: Exploring the Language of Catastrophe, Citizenship, and Compatriotism in Colonial Martinique**
Department of History
Christopher Church, Graduate Mentor
Yvonne Lin, Undergraduate Mentee
Tyler Stovall, Faculty Adviser

**The Price of the Purchase: Accounting for the Conquest of Indian Country**
Department of History
Robert Lee, Graduate Mentor
Matthew Irons, Undergraduate Mentee
Mark Peterson, Faculty Adviser

**Becoming Citizens without the Rights of Citizenship: U.S.-Born Women and the Loss and Reacquisition of Citizenship**
Department of History
Brendan Shanahan, Graduate Mentor
Leila Rock, Undergraduate Mentee
Brian DeLay, Faculty Adviser

**Synthesis of a New Hydrocarbon Substrate for Platinum Catalysis**
Department of Chemistry
Miriam Bowring, Graduate Mentor
Kathryn Liu, Undergraduate Mentee
Robert Bergman, Faculty Adviser

**Nanostructuring of Electrodes for Novel Photovoltaic Systems**
Department of Physics
Sebastian Wickenburg, Graduate Mentor
Han Sae Jung, Undergraduate Mentee
Michael Crommie, Faculty Adviser

**Hypervisibility of Race and Poverty in the Lower Ninth Ward since Hurricane Katrina**
Department of Sociology
Siri Colom, Graduate Mentor
Veronica Chew, Undergraduate Mentee
Michael Burawoy, Faculty Adviser

**The Rise and Fall of International Adoption: An Analysis of Policy Changes and their Effects**
Department of Sociology
Sarah Macdonald, Graduate Mentor
Andrea Sequeira, Undergraduate Mentee
Marion Fourcade, Faculty Adviser

**Validation of DNA Methylation in Blood for Study of Prenatal Origins of Later-Life Obesity**
School of Public Health
Paul Yousefi, Graduate Mentor
Girish Motwani, Undergraduate Mentee
Nina Holland, Faculty Adviser

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