Berkeley Graduate Division

2018 Student Mentoring and Research Teams & Projects

MENTORS PROJECT DESCRIPTION MENTEES



AGRICULTURAL AND RESOURCE ECONOMICS

1. Health Effects of Changes in Local Air Pollution Driven by Nuclear Plant Closures





BUSINESS AND PUBLIC POLICY

2. Demand-Driven, Private Sector Enforcement of Labor Law in Bangladesh





CHEMISTRY

3. Controlling Metallic Nanocrystal Shape Transformations Through Non-Equilibrium Etching





CITY AND REGIONAL PLANNING

4. Pedestrian Path Networks in the Suburbs: Evaluating their Contributions to Walkability





CITY AND REGIONAL PLANNING

5. New Frontiers in Urban Transportation Research: **Exploring Crowdsourced Data on Activity Diaries** of Marginalized Low-Income Populations in Bogotá





CIVIL AND ENVIRONMENTAL ENGINEERING

6. Hybrid Simulation and Seismic Testing of Environmentally **Damaged Bridge Columns**





EDUCATION

7. Learning to Define Mathematical Objects and Operations, Learning to Divide Fractions: Fostering the Co-Development of Two Essential Competencies—A Cross-Sectional Study





EDUCATION

8. Following the Leaders: Special Education Policy Diffusion Based on the Convention on the Rights of Persons with Disabilities (CRPD)





Allegra J. Midgette

EDUCATION

9. Gendered Housework Distribution and Morality: Issues of Fairness in American Families





ENVIRONMENTAL SCIENCE, POLICY, AND MANAGEMENT

10. Ecological and Behavioral Consequences of Losing Legs in Daddy Long-Legs



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MENTORS PROJECT DESCRIPTION MENTEES ENVIRONMENTAL SCIENCE, POLICY, AND MANAGEMENT 11. Friend or Foe: Discovering the Colony-Recognition System of Eusocial Flatworms **HISTORY** 12. "Menus that Serve Your Country": The Influence of the U.S. Food Administration on Nutrition Science during World War I LOGIC AND THE METHODOLOGY OF SCIENCE 13. Fuzz Testing Software with Control Improvisation **MATHEMATICS** 14. Approximation Algorithms in Semirandom Models **MECHANICAL ENGINEERING** 15. Mechanics of 3D Printed Cartilage Constructs abriel R. López-Marcial **MOLECULAR AND CELL BIOLOGY** 16. Exploring the Impact of Faulty Astrocytes on Brain Development **MOLECULAR AND CELL BIOLOGY** 17. Regulation of Microglial Function in the Healthy and Diseased Brain **NEAR EASTERN STUDIES** 18. A Network of Stars: Mapping the Ancient Heavens **PLANT AND MICROBIAL BIOLOGY**



19. Powdery Mildew-Secreted Effector Proteins Target Host Plant Transcription Factors Involved in Growth and Development







PLANT AND MICROBIAL BIOLOGY

20. Characterization of a Novel Plant Cell Wall Enzyme in the Model Plants Nicotiana benthamiana and Arabidopsis thaliana



Gauri R. Kapse

Berkeley Graduate Division

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MENTORS PROJECT DESCRIPTION MENTEES POLITICAL SCIENCE 21. The Dark Side of Political Participation: The Public's Veto and the Housing Crisis in U.S. Cities Joseph Valentine Hernández **POLITICAL SCIENCE** 22. Understanding the Role of Gender: The Unique Path Women Take on the Road to Candidacy in Sub-Saharan Africa **PSYCHOLOGY** 23. Comparing Human and Artificial Intelligence **SOCIOLOGY** 24. The Authoritarian Foundations of the Rule of Law: Spain and Mexico in Comparative Perspective