



# **Graduate College** ***Rebel Research and Mentorship Program***

**Congratulations to our incoming  
2018-2019 cohort**






# School of Allied Health Sciences



# DANIEL LIDSTONE

  
**Ph.D. student,  
Department of  
Kinesiology and  
Nutrition Sciences**

**Advisor:  
Dr. Janet Dufek**

**Undergraduate  
student mentee:  
Irwin Munoz**



Cerebellar Transcranial Direct Current Stimulation (CB-tDCS) is a neuromodulation technique that may improve coordination and learning of complex motor tasks. It is currently unknown whether CB-tDCS improves performance and learning of complex motor tasks. Furthermore, the effect of CB-tDCS on motor learning over multiple sessions is not well understood. The proposed study aims to (1) determine the effect of multi-day CB-tDCS on throwing accuracy and (2) determine the effect of multi-day CB-tDCS on motor cortex excitability.



# Irwin Munoz

**Senior, Dept. of  
Kinesiology and  
Nutritional Sciences**

**Advisor:  
Dr. Janet Dufek**

**Graduate student  
mentor:  
Daniel Lidstone**



## Research Interest

- Neurophysiology and non-invasive brain stimulation in clinical settings for analysis in motor control and skill acquisition.
- Understanding Health disparities among vulnerable populations
- Balance performance and biomechanics functions in movement disorders or populations with movement deficiencies.
- Intent to obtain admission into a Medical Scientist Training Program (MSTP) for graduate studies.





# College of Education



# ERDOGAN KAYA



**Ph.D. student,  
Department of  
Teaching and  
Learning**

**Advisor:  
Dr. Hasan Deniz**



Erdogan Kaya is a fourth year PhD. student in the Science Education Program; supervised by Dr. Hasan Deniz. Kaya is currently working on K-12 engineering education aligned with Next Generation Science Standards. For RAMP, Kaya will collaborate with a mentee on writing research oriented manuscripts. RAMP mentee will assist in data collection, data analysis, and will gain experience in writing a literature review.



# AMANDA VAZQUEZ



**Junior, Department  
of Mechanical  
Engineering**

**Advisor:  
Dr. Hasan Deniz**

**Graduate student  
Mentor:  
Erdogan Kaya**



Research Interests: Sustainability  
and Education

These research interests were inspired by my past work with educating K-12 students about solar energy and water treatment.

Educating others about engineering is the best way to learn yourself. Research on engineering education is a big part in improving education for future engineers, and to provide a common curriculum to reach the entire globe.

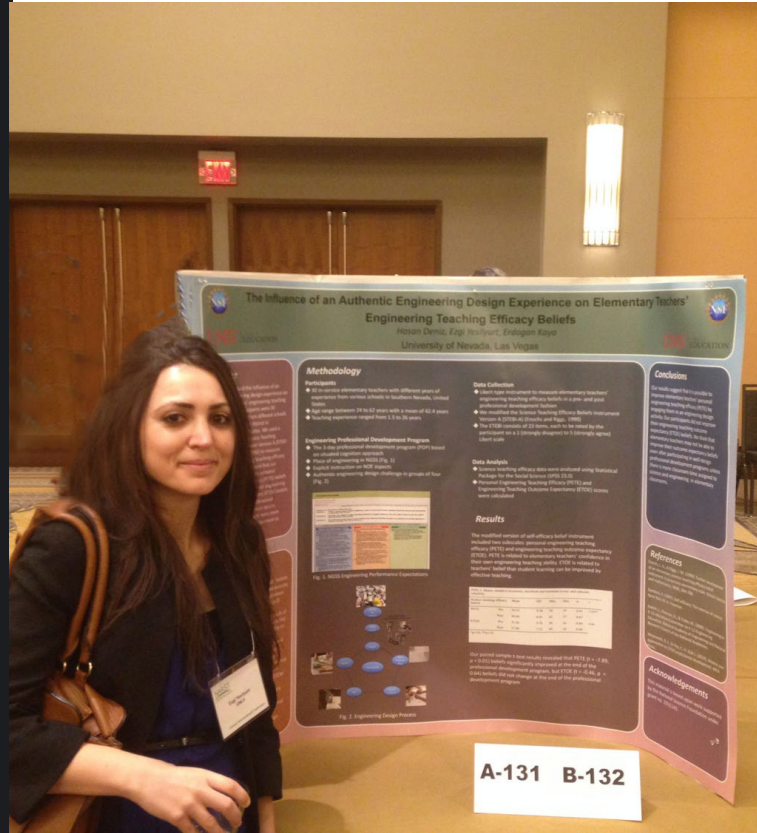
Sustainability is important not only to engineers but to all of society. Clean and renewable energy, green building, water reclamation, recycling, and composting are just some of the important topics in sustainability. Research on this topic is crucial to provide a lasting ecosystem for all populations.



**EZGI YESILYURT**

**Ph.D. student,  
Department of  
Teaching & Learning**

**Advisor:  
Dr. Hasan Deniz**



### **The Research Project:**

The research is titled "Examining the interrelations among factors related to preservice teachers' approaches to teaching evolution". The purpose of the study is to explore to what extent the direct and indirect relations of cognitive, affective and contextual factors explain teachers' perceived approaches to teaching evolution. The survey will be used to collect data about participants' acceptance of evolutionary theory, religious orientations, and teaching preferences for evolutionary theory.

Based on the available literature and the survey results, a path model is proposed to explain how all these factors are related. To assess the proposed model, path analysis will be performed.

### **Responsibilities:**

We will work together with the undergraduate student mentee throughout the project.

Our responsibilities include:

- ❖ collecting data through the electronic survey
- ❖ analyzing the quantitative data
- ❖ finalizing the research proposal
- ❖ submitting the research proposal to present at a conference
- ❖ writing an article for publication.



# **MINA RAEISI**

**Junior, B.S.,  
Secondary Education**

**Advisor:  
Daniel Henry**

**Graduate student  
mentor:  
Ezgi Yesilyurt**



My name is Mina Raeisi. I am a Secondary Education major with an area of focus in English. Right now, my research and creative interests really fall into education and technology. I'm interested in the evolution of education and the ways we can use technology as a tool of motivation for students.





# Howard R. Hughes College of Engineering



**KAUSHIK RAJ**

**Ph.D. candidate,  
Department of  
Electrical & Computer  
Engineering**

**Advisors:  
Dr. Venkatesan  
Muthukumar & Dr.  
Sahajendra Singh**



Guidance Navigation and control of Aerospace Vehicles: We will start with a HAVE DASH II missile model and design a control Law for Roll couple maneuvers using a finite time controller with high gain observer. For robustness a sliding mode or super twisting control can be used. Further work can be extended to Continuous Fixed time convergent regulator. Similar control techniques will be employed for Quadrotor UAV model and other aircraft model as well.

Undergraduate student is supposed to do a complete background Literature survey of previous recent papers in the area and tuning of the parameters for better results.





# College of Liberal Arts



# ELENA GAVRILOVA

**Ph.D. student,  
Department of  
Psychology**

**Advisor:  
Dr. Brad Donohue**

**Undergraduate  
student mentee:  
Johannah Kalita**



My project will focus on examination of significant others' attendance and their influence on mental health outcomes in student athletes. The project will include examination of client satisfaction with services and intervention helpfulness. Frequency of session attendance, as well as type of significant other relationship to client will be examined. This project is unique in its nature. No previous studies have examined the influence of significant others' attendance on athlete mental health outcomes. Undergraduate will become familiar with basic statistical procedures, constructing correlation tables, as well as learn how to create a poster in accordance with APA standards and partake in the poster presentation at a national conference. Student-mentee will assist with the manuscript creation and have an opportunity to co-author a publication in scientific journal past the RAMP program if enough is contributed to the manuscript.



# JOHANNAH KALITA



**Senior, Department  
of Psychology**

**Advisor:  
Dr. Bradley Donohue**

**Graduate student  
mentor:  
Elena Gavrilova**



I have done some interesting research through TOPPS lab at UNLV, and I will be continuing this research in a more focused way with Ms. Gavrilova. This research considers the unique stressors faced by student athletes, and looks into ways of optimizing their mental health, sport performance, and overall life quality. This research is a great first step towards what I want to research in the future.

On a personal level I want to do work with PTSD, anxiety, and mood disorders in our nation's troops. Like student athletes, these men and women encounter unique stressors that need unique treatments, and working in this area is my life goal.



# JENNIFER JOHN

**Ph.D. student,  
Department of  
Psychology**

**Advisor:  
Dr. Rachael Robnett**

**Undergraduate  
student mentee:  
Brittany Klenczar**



Jen's RAMP research will focus on how college students recall their life experiences with math, and how those memories are related to their own math anxiety, resilience, academic outcomes and future career goals. A major aim of this study is to understand how certain experiences with math might predict an individual's pursuit of the subject. We hope that this research will afford us insight into what allows students to persist in math despite challenges and setbacks.

Jen will be mentoring Brittany Klenczar, an undergraduate psychology major who hopes to attend graduate school in the future.

Over the next year, Jen and Brittany will generate formal scientific hypotheses and research questions, create a coding manual for working with qualitative data, clean and manage the dataset, run statistical analyses, and submit two posters for presentation at a national social psychology conference.



**Brittany Klenczar**



**Senior, Department  
of Psychology**

**Advisor:  
Dr. Rachael Robnett**

**Graduate student  
mentor:  
Jennifer John.**



My research interests are vast within developmental and social psychology. They include interpersonal relationships, gender, and stereotyping and the way in which they effect development and beliefs people may hold about the world. Additionally, attraction and personality are of interest to me. Being able to conduct research with Jen is so appealing to me because researching how gender and stereotypes could affect peoples' decisions to pursue a certain career field could potentially allow for interventions that negate the effects stereotype threat has on people.



**Frank Johnson**



**MFA, Creative  
Writing**

**Advisor:  
Dr. Anne Stevens**

**Undergraduate  
student mentee:  
Nicholas Russell**



Our project will interrogate the American tendency to examine the biracial Black experience solely through a Black/White lens, which is remarkable given the expansive and continually growing body of discourse around the African diaspora. The silencing and erasure of Afro-Asian, Afro-Latinx, Afro-Indigenous, and Afro-African experience serves to affirm the value of and perpetuate a conversation that centers White Americans. To treat the subject with due care would require further unpacking and specification of these categories based on cultural and regional disparities; however, due to the length of time given to complete this project, my mentee and I will provide a broad vision of the multiple and varying causes and impacts of this rhetorical bias. Our examination of the discourse as manifest in literary works will ballast our production of a conference-length paper. We plan to present at MELUS and AWP and publish the work in an academic journal.



**NICHOLAS  
RUSSELL**

**Junior, Hank  
Greenspun School of  
Journalism and  
Media Studies**

**Advisor:  
Dr. Anne Stevens**

**Graduate student  
mentor:  
Frank Johnson**



We seek to conduct research into the styles, motivations, and challenges faced by multiracial writers and artists.

Our work will seek to analyze the content of working writers like Mat Johnson and Zadie Smith, as well as challenge the simplistic and misunderstood notions surrounding race and identity, specifically in the U.S. Our driving desire is to give credence to the truth of complexity surrounding identity, the ways racial and ethnic boundaries have been produced and policed, and our collective reluctance or inability to reckon with history.



# RAFAEL OGANESYAN

**Ph.D. candidate,  
Department of  
Political Science**

**Advisor:  
Dr. John Tuman**

**Undergraduate  
student mentee:  
Karl Catarata**



The 2016 U.S. President election brought the notion of identity politics to the forefront of voter behavior scholarship. Using the National Asian American Survey (NAAS), we test sociological and psychological approaches with a understudied vote group: Asian-American voters. We posit that sociodemographic identity will have a direct impact on the vote function of Asian American voters. The undergraduate student mentee, Karl Catarata, will be responsible for providing a theoretical background of the Asian-American voter. Upon gathering the necessary literature, we will then proceed with modeling the Asian-American vote function.



# Karl Catarata

**Junior, Department of  
Political Science**

**Advisor:  
Dr. John Tuman**

**Graduate student  
mentor:  
Rafael Oganessian**



Karl Catarata's research focuses on voter mobilization and voter behavior within specific affinity groups like the Asian Pacific Islander American (APIA) population and within the Latinx population. Catarata's research interests also focus on how grassroots activism and social movements plays a deep role in turning young folks and voters towards the ballot box. In addition, Catarata is interested in focusing on how voter mobilization and voter behavior is influenced by various identities that citizens hold before the turnout to polling locations on voting day.

During the RAMP Undergraduate program, Catarata is aiming his research on voter behavior within Asian Pacific Islander national-based surveys conducted from the 2016 election, to predict and showcase the evidence that affinity identities and groups play a deep role towards voter mobilization.



**JONATHAN-  
GEORGES  
MEHANNA**

**Ph.D. student,  
Department of Political  
Science**

**Advisor:  
Dr. David Damore**

**Undergraduate student  
mentee:  
Selene Moreno**



Economic sanctions have come to be known as the foreign policy instrument of the 20<sup>th</sup> century. Today, their use remains just as relevant as it always has been in most of the recorded history. Their efficacy, however, remains at the center of heated debate between policy makers and researchers. Much of the existing body of literature on economic sanctions focuses on providing specific guidelines for economic sanctions to succeed, and considers factors influencing their effectiveness such as the nature of sanctions and their scope and goals.

The impact on sanctioned states often goes far beyond the national economy and can carry hefty political and social implications.

My research investigates that domestic impact of multilateral economic sanctions on “target” (i.e. sanctioned) states, as well as the impact of the rescindment of those sanctions thereafter.



# SELENE MORENO



**Senior, Department  
of Political Science**

**Advisor:  
Dr. David Damore**

**Graduate student  
mentor:  
Jonathan Mehanna**



I am interested in researching topics in the Middle East including Politics of Islam and how that shapes Foreign Policy in the United States; conflict resolution; Political Violence and Terrorism; countries of interest include Egypt, Palestine and the Levant.





# College of Sciences



# MICHAEL ISAACS

**Ph.D. student, School  
of Life Sciences**

**Advisor:  
Dr. David V. Lee**

**Undergraduate  
student mentee:  
Reiner Dizon**



As an engineer, Reiner has a particular expertise in interfacing sensors, microcomputers, and motors to make robots. Michael's work in biomechanics focuses on the direct quantification of locomotor performance for organisms and machines.

Our RAMP project will explore the dynamics of a novel walking robot that mimics human walking strategies.

Realizing robots can be programmed to move in any way we want – we'll use a control strategy that mimics human walking gaits. Our approach allows us to get direct feedback on how the system interacts with the ground and can improve the future of robotics and bionic prosthetics.



# REINER DIZON



**Senior, Department  
of Electrical and  
Computer  
Engineering**

**Advisor:  
Dr. David Lee**

**Graduate student  
mentor: Michael  
Isaacs**



My research interests include embedded systems, biomedical engineering, and electronics. These interests were inspired by previous engineering courses that were most interesting to me. The research area of this project is related to my first two research interests. I hope to continue pursuing these interests after I finish my bachelor's degree in graduate school.






# Greenspun College of Urban Affairs



# **CASSANDRA BOYER**



**Ph.D. student,  
Department of  
Criminal Justice**

**Advisor:  
Dr. Emily Troshynski**

**Undergraduate  
student mentee:  
Itzel Rios**



Cassandra Boyer is a second-year Ph.D. student in Criminology and Criminal Justice. She is supervised by Dr. Emily Troshynski.

Her research interests are focused on the animal rights movement, surveillance, and eco-terrorism.

Her project for RAMP will examine perceptions of domestic terrorism, especially as it pertains to eco-terrorism.

Cassandra will mentor Itzel Rios, an undergraduate student in Sociology, for this project. She will familiarize Itzel with the research process, Qualtrics, and data analysis.



**ITZEL RIOS**

**Junior, Department  
of Political Science**

**Advisor:  
Dr. Emily Troshynski**

**Graduate student  
mentor:  
Cassandra Boyer**



Itzel is excited to learn more about the research process. Her research interests include terrorism, feminist theory, and foreign policy. The project she will be mentored in for RAMP analyzes eco-terrorism, and she is interested in possibly examining the role women have in the subject.



**RYAN RADMALL**

**Ph.D. student,  
Department of  
Criminal Justice**

**Advisor:  
Dr. Tamara  
Madensen-Herold**

**Undergraduate  
student mentee:  
Lauren Sailer**



The title of the research project that I will be working on is called “Booze and Brawling: An Examination of Spectator Violence at Country Concerts.” This project will examine the factors surrounding violence at country concerts in Las Vegas, NV. Aspects of the location, costs of tickets, alcohol served, and nature of violence at these events will be explored through observations, interviews, archival records, and statistical analyses to come up with recommendations for reducing violence at these kinds of events.

I will work together with my mentee, Lauren Sailer, on all aspects of this project including the write-up of the research proposal, filing the IRB, conducting the literature review, collecting the data, analyzing the data, typing up the manuscript, designing the poster for presentation, and participating in the 46<sup>th</sup> Annual Western Society of Criminology Conference that will take place in 2019.



# LAUREN SAILER

**Senior, Department  
of Criminal Justice**

**Advisor:  
Dr. Tamara  
Madensen-Herald**

**Graduate student  
mentor:  
Ryan Radmall**



My research interests are centered around group dynamics in relation to spectator violence. I hope that my research done on identifying the factors that surround violent occurrences in crowds will potentially help expand more training for staff and police services to provide a safe and stable environment and potentially prevent these occurrences from happening all together.