

Honors College Thesis Day

Fall 2023

Friday, December 8th, 2023

Urja Joshi

"Hindu Mythology is not Mythology: Philosophy of the Puranas according to Dharma."

Philosophy & Religion

Synopsis:

Building on existing scholarship regarding the trinary relation between religion, secularism, and superstition, I argue that a similar Eurocentric conceptual schema defines the relation between religion and mythology today. As a case in point, I offer both theoretical and empirical research on the widespread use of "mythology" to refer to the Hindu Purāṇas. The deeply problematic connotations of this usage speak to the limitations of "religion" as a conceptual category in multicultural contexts. Hence, I offer a more inclusive term to use instead: dharma. Relying broadly on postcolonial methodologies and Gayatri Spivak's notion of subalternity in particular, I will argue that reclaiming the Purāṇas in relation to the category of dharma makes an effective intervention in resisting colonial legacies.

9:30 AM

Sage 355

Zoom Meeting ID:

812 7958 6949

Mentor:

Dr. Leah Kalmanson

Leslie Agwanihu

“Impact of Health Disparities on Maternal Mortality Rates for Black Mothers of Advanced Age in the United States”

Rehabilitation & Health Services

Synopsis:

This research rigorously investigates the heightened mortality risks faced by black mothers aged 35 and older in the United States. Adopting a descriptive research approach, the study concentrates on variables such as mortality rates, maternal risk factors, race, and age. Utilizing a qualitative framework, the research aims to dissect the intricate interplay of these factors to provide a comprehensive understanding of the challenges contributing to elevated maternal mortality rates in this demographic. By pinpointing key variables, the study aspires to offer nuanced insights that can inform targeted interventions, ultimately contributing to a broader understanding of the complex dynamics affecting advanced-age black mothers.

10:30 AM

VIRTUAL

**Zoom Meeting ID:
865 0718 2142**

**Mentor:
Dr. Chisom Iwundu**

Johnny Luevano

“Is Pax Total Possible: Does the Homicide of Social Leaders in Colombia Serve a National Political Purpose”

Political Science

Synopsis:

This thesis addresses the issue of political violence in Colombia, more specifically how the homicide of social leaders in Colombia impacts voting in national legislative elections. The use of political violence has been used as a means of voter mobilization throughout Africa, however, typically, such violence takes place in set electoral cycles, not year-round. Using variables measuring crime data, economic data, and political data, it can be determined that these homicides do have political effect even though they take place year-round, raising the vote share of right-wing parties in municipalities where more left-wing social leaders are murdered. In turn, this study helps to create a foundation for determining factors of violence against social leaders in Colombia even in the face of Petro’s push for Pax Total.

10:00 AM

Sage 120A

**Zoom Meeting ID:
889 7338 2187**

**Mentor:
Dr. James Meernik**

Alyssa Becnel

“Distribution of larval Chironomidae in selected rivers on Navarino Island, Sub-Antarctic region of Chile.”

Biology

Synopsis:

Chironomidae is a diverse family of insects found on every continent. Due to their broad range of tolerance to different environmental conditions, they are often valuable in the assessment of freshwater ecosystem health. However, the ecology of chironomid populations in Sub-Antarctic freshwater ecosystems is poorly understood. By identifying chironomid larvae from a freshwater river on Navarino Island, Chile, this study aims to define how chironomid population characteristics respond to temperature along an altitudinal gradient, providing a baseline for long-term studies conducted in the region.

10:00 AM

Sage 310P

Zoom Meeting ID:

883 8743 1491

Mentor:

Dr. James Kennedy

Sydney Buhrow

“Writing Character of Color as a White Writer”

English

Synopsis:

This thesis aimed to practice writing characters of color in a meaningful way through four short stories. It begins with a short analysis of what the demographics of authorship currently looks like, how characters of color are currently portrayed, why it is necessary for white authors to write with these characters and readers in mind, and how white writers must be sensitive to what and how they write. Each story has a different focus and character set while coming with unique challenges which are discussed in reflections before each story.

11:00 AM

Sage 120A

Zoom Meeting ID:

840 6801 0288

Mentor:

Dr. Joanna Davis-McElligatt

Matthew Nguyen

“Exploring the Utility of Curvilinear Feedback Systems for Improving Muscle Strength via Surface Electromyography.”

Behavior Analysis

Synopsis:

Millions of people suffer from knee-related complications, affecting their everyday lives. Physical rehabilitation is an important part of the recovery process for many. The principles of behavior analysis have much to contribute to this type of therapy. In what is known as biofeedback, weak muscles contractions can be measured, with supplementary, external feedback provided to the person. The individual, through the process of reinforcement, can learn to better control their muscles. This study investigates a unique form of biofeedback, establishing a non-linear relationship between muscle contractions and external feedback.

11:00 AM

Sage 310P

Zoom Meeting ID:

TBA

Mentor:

Russell Silguero

Phillip Guillen II

“Portrait of the Empty Desert”

English

Synopsis:

Portrait of the Empty Desert consists of an excerpt from a novel in progress. The excerpt focuses on the home-life of two siblings, Llorona and Pablo, the mystery surrounding their mother, and the cruelty of their father. Set in the fictional location El Llano del Norte, the piece utilizes a fractured narrative form in an effort to blur dreams and reality. *Portrait of the Empty Desert* weaves together Buddhist philosophy, Surrealism, and Meso-American mythology and folklore to explore the many ways human beings are interconnected with others and with the world at large.

12:00 PM

Sage 120A

Zoom Meeting ID:

856 7620 8067

Mentor:

Dr. Carly Susser

Abigail Borak

**"The Raven,Ãs Fair: A Collision of Modern Ideas and
Historic Concepts in a Story of the Afterlife."**

English

Synopsis:

The Raven's Fair is the beginning of what is meant to be a longer fiction novel following Ness Walker, a teenager who witnesses unexplainable phenomena, struggles with familial tension, and wades through waves of anxiety and depression.

This thesis weaves through Ness's story, the overview of her world, the process behind its creation, and the future of this story.

I consider the process behind drafting this piece through several revised editions of the original, and the feedback I received to finalize it. For the future, I explore publishing, obtaining an agent, and I practice writing a query letter.

1:30 PM

Sage 342

**Zoom Meeting ID:
844 0703 2207**

**Mentor:
Dr. John Tait**

Katherine Crowe

**"Decentering Standard English in the Writing Center and
Beyond."**

English

Synopsis:

Modern conventions for academic writing developed from a tradition of academic discourse as an exclusionary space populated solely by white, wealthy, Western men (Stanford, Mitchell), and enforces a culture of power that excludes students who do not have the ability, and /or desire to learn and conform to the terms of participation (Delpit). White supremacy has heavily influenced the development of academic writing, but its influence is often slippery, resisting explicit identification. In this project I explore the the tacit nature of White Language Supremacy and consider strategies to decenter white language and epistemologies generally in writing instruction as well as in my practice as a writing center tutor.

1:00 PM

Sage 120A

**Zoom Meeting ID:
894 0582 3229**

**Mentor:
Dr. Joanna Davis-McElligatt**

Isha Murugesan

“Modulating mechanical microenvironment for modeling hypertrophic cardiomyopathy using a biocompatible and photosensitive hydrogel.”

Biomedical Engineering

Synopsis:

Hypertrophic cardiomyopathy is a pathological thickening of the ventricular walls and consequent reduced ability to pump blood, often marked at the cellular level by extracellular matrix (ECM) fibrosis. A key issue in *in vitro* modeling of this disease is creating a physical environment that supports and directs cell growth dynamically, allowing us to emulate the changes in the heart as the ECM stiffens using *in vitro* human induced pluripotent stem cell-derived cardiomyocytes (hiPSC-CMs). To this end, we are developing a biocompatible, photosensitive hydrogel that can through a cross-linking process, simulate the effect of stiffening ECM on cultured hiPSC-CMs over time.

3:00 PM

Sage 120A

Zoom Meeting ID:

897 0153 2036

Mentor:

Dr. Huaxiao Yang
