

Wheaton College Research & Creativity Symposium



# Message From the Interim Provost



# Dear Students,

As spring returns and beauty blooms around us, we are reminded that renewal is possible, in its many hopeful ways. With that hope, we recommit ourselves to ideals we hold true, all of which are nourished by our belief that knowledge is a gift we must share generously.

And generous you are – generous in the time you have devoted to the pursuit of your passion, generous in the supportive communities you have created while doing so, and generous in your contributions to your fields of expertise.

This year, Academic Festival honors these contributions and celebrates you. Through your extraordinary work, you manifest the radical joy inherent in learning and you extend grace to those who learn with you and from you.

It is my great privilege to witness your exceptional scholarship and to wish for your lives to exemplify the abundance that Wheaton College promises to all its students.

With warm congratulations,

Touba Ghadessi, Interim Provost

wheaton college massachusetts

# **Academic Festival Participants: Individual Projects**

# Mackenzie Blaney '22

Hispanic Studies Capstone Project

The Power of Learning a Foreign Language in the Context of a Liberal Arts Education

There are many ways in which people connect. Every connection a person has is established through language, either verbal or non verbal language. In my research I consider the ways in which the values of learning a foreign language and the goals of a liberal education align. I also investigate whether the argument against foreign language requirements in colleges and universities has sufficient evidence to support its application. Within the liberal arts context, learning objectives exist to improve the communication skills of all students whether through writing classes, presentations or the requirement to learn and foreign language. In many colleges and universities, however, foreign language programs or requirements are being eliminated, based on economic arguments and cultural-centric sentiment in the United States. Learning to communicate with others, especially with those different from us is an essential part of one's education. Speaking a different language and achieving intercultural competence is another important step towards a well-rounded education. One doesn't have to be an expert in a second language for it to be valuable or to have an influence in one's and other's lives.

## Charles Campbell '23

Industrial Organization and Public Policy

Racial Demographics and its Role in Housing and Poverty

Race in the United States has long acted as a determinant for opportunity, especially regarding housing and economic mobility. Redlining's existence in New York City eliminated many people of color's ability to move into more secure economic situations. Consequently, it forcibly placed them into harsh environments where they were more susceptible to socioeconomic issues like food insecurity, poverty, health disparities, and more. While redlining is no longer written into law, its effects still linger. This paper will examine the racialization of rental pricing and its correlation to poverty in New York City.

#### Tessa Kishback '22

Digital Marketing and Early Childhood Education

Creating Professional Portfolio Websites

I created two websites using WordPress, a website creation platform. The first showcases my work in Professor Chapman's Digital Marketing course, in which I audited Hasbro's marketing strategies for fall of 2021. The second displays my educational skills/philosophy and experiences as a student teacher in the spring of 2022. Both websites serve as professional portfolios to be shown to potential employers. Although the content for each website was very different, the mechanics of creating them were the same.

#### Madeleine Lambert '22

Independent Study Senior Capstone

The Unseen Diversity in Wheaton Woods

The leaf litter that coats the forest floor is full of biodiversity. My work primarily relates to the microscopic fungi that break down leaf litter and renew the forest with a fresh layer of soil. Though you can not see them, you are surrounded by fungi in Wheaton Woods. In my research, I was able to develop processes to isolate and genetically sequence fungi samples. After research, we find that Wheaton Woods holds new and uncharacterized filamentous fungi.

#### Hannah Lord '22

Summer Research Project and Independent Study

Editing DEM Files to Represent Overhanging Structure and Arches

Applications like Google Earth rely on huge amounts of elevation data to render terrain. Digital Elevation Models (DEMs) are a commonly used ASCII text file format that contain a matrix of elevation values. Currently, there is no way to represent arching or overhanging structures in these files. The purpose of this research project was to edit the DEM file format to accommodate these structures and write a corresponding algorithm and program to successfully render the terrain with the arch or overhang. The resulting program was written in C++ using the OpenGL graphics library.



#### Amber Medero '22

Global Honors

Global Honors: The Pioneer Women of Latin America

In my Global Honors Project, I argue that "productive frictions" and biculturalism are two examples of transculturation. I prove my argument by exploring the lives and work of singers Celia Cruz, Selena, and Rosalía as case studies. Transculturation is a cultural process by which new cultural elements emerge in a society while existing ones are lost or altered, resulting in behavioral shifts. Productive friction is when new music styles are added to the existing mainstream music, an exchange that ultimately creates new musical genres. Celia Cruz, Selena, and Rosalía all use productive friction being creative artists in their designated genres, salsa music, Tejano music, and flamenco-pop respectively. Transculturality is visible on every continent's many cultures, and it is not unique to these three pioneer women, I only picked them in relation to my interests and their relevance to Hispanic Studies.

#### Cameron Murray '22

Hispanic Studies Senior Seminar Capstone

Gender and Guatemalan Society Through the Films of Jayro Bustamante

My research was centered around the films of the Guatemalan director, Jayro Bustamante, and the ways in which his films showcase various gender norms in Guatemala through sexuality, in indigenous communities, and others. Guatemala is a country with extremely rigid norms in regards to gender, as more than 90% of the population identifies as Catholic and follows conservative approaches to gender and how men and women should function in society. Bustamante oftentimes represents Guatemala in film contests, and sometimes all of Latin America as well. His works are world renowned and have won various prizes. He is unique in the sense that he showcases films from minority or taboo perspectives, including that of a gay man, indigenous communities, or the experiences of women. His films offer unique perspectives into a side of Guatemala that the country seeks to suppress, making his works groundbreaking and challenging the status quo.



#### Minchen Polo Gao '23

Music: Composition

Green Sleeves

*Green Sleeves* was originally composed by Henry VIII of Englandand it describes the feeling of meeting one's true love. My work is a string quartet with 3 variations based on the original *Green Sleeves*. The 3 variations respectively represent the stages of love: "Devotion," "Sorrow," and "Plain Love."

#### Ariana Rajaee '23

ECON 361- Industrial Organizations and Public Policy

The Effects of COVID-19 Vaccination Rates on States' Quarterly GDP in 2021

My research paper analyzes and transforms data on percent change in COVID-19 vaccination rates for all fifty states and compares this data against each states' percent change in quarterly GDP in 2021. The data and results provide some insight on the effects the COVID-19 vaccine can have on states' economy measured by GDP.

## Nicole Toppses '23

099 - Independent Study

An Idea About Embryonic Development

This project explores genetic patterns that drive cilia development during embryonic development in S. purpuratus, the purple sea urchin. These fascinating creatures ciliate within 24 hours of fertilization, making ciliogenesis observation easier. Their embryonic development is also quite similar to the development of humans. The findings in this project combine the work of Wheaton Alumni from 2009 to 2019 to tell a story of the ciliary proteome expression patterns.



#### Kezang Choki Tshering '22

ENG 280: Writing in Professional Contexts

Digital PSA on Parabens

Parabens are one of the most commonly used preservatives in pharmaceutical, food products, and personal care products since the 1930s. Given their widespread use, most people either don't know about its negative effects or they believe parabens are safe for use. With parabens' low acute toxicity, people think of them as one of the safest preservatives in use. However, research studies show a wide range of health problems associated with parabens. Parabens are also a rising environmental concern with low levels being detected ubiquitously in wastewater, rivers, and soil. Savvy customers and their buying power will ultimately affect what will be produced, so there is a need to inform the public that parabens are not safe for use. So, awareness programs and public service announcements (PSAs) specifically tailored to the audience can be a useful tool in persuading consumers to stop buying products with parabens.

# **Academic Festival Participants: Group Projects**

#### Meghan Reed & Melane B. Goncalves, Class of 2022

Summer Research Project, Biology

Prevalence of Saccharomyces Yeast in the Wheaton Woods

For this project we collected yeast, a single celled fungus, from the Wheaton Woods to determine the prevalence of saccharomyces species in Massachusetts. The data we collected will be used to compare changing ecosystems in the wake of climate change.

#### Morgan Claverley, Devaughn Hamm, Basia Mwantuai

May Fellows Colloquium

Unhoused Communities



## Cat Le, Natalie Moore, Angelina Oroh, Jada Prinopoulos-Taylor

May Fellows Colloquium

Worldly Worries: What to do when the world is too much

#### Emma Gadreau, Tyler Brosseau, Darin Sweet

May Fellows Colloquium

The Last City: A Work of Speculative Fiction- A climate change board game

The purpose of our project is to educate our audience about climate change and the future effects that it will have on the earth. We wanted to effectively communicate the message that we can do something to avoid or limit the worst effects of climate change through a medium that would be enjoyable for its audience. We agreed that a board game would be an excellent way to educate multiple audiences about climate change and the adaptation and mitigation strategies that can be taken. Through this experience, we believe that our project was successful due to our ability to work together and communicate. We were able to develop better public speaking skills, learn how to work better in group settings, delegate tasks, and develop time management skills.

## Veda Garrett, James Sena, Kayla Garabedian, Yanasia Tarr, Elijah Akindole

Theater and Dance

Senior Theater Majors Present: Ensemble Experiments

Senior Theatre majors have spent their last semester creating an original play that bravely reflects on their lives, especially as seniors forging next step paths. The play combines their different voices and styles, and offers a moment of reflection and hope. Please come and join us as we applaud their commitment and grit, and give them our thanks for all they have brought to Theatre and Dance while here at Wheaton. Congratulations to our seniors!

## Thomas Conrad, Haoyuan Zheng, Robert Allen

Music

Music Department Senior Recitals

The Music Department is pleased to recognize the advanced music performance work by this year's senior recitalists. Each of them is studying at upper levels of music performance and will be showcasing their accomplishments in recitals this spring.

## Emily Gray, Olivia Doherty, Sofia Vafiadis, Whitney O'Reardon

History of Art

Limits of Visibility Exhibition

Given the roles visual art has played in supporting claims to power, the artists featured in *Limits of Visibility* raise complex questions about the potentials and pitfalls of using the arts as an agent for social justice, anti-racism and equity work. History of Art senior majors each researched and curated a section of this exhibition: "From Stock to Self," "Race and Representation;" "The Color of Race: Myths and Markers;" "Queering the Classical;" and "Visualizing What Can't Be Seen."

# Sativa Leonard, Sophie Wilhelm, Maddie Clarkewright, Amelia Verhar, Nathaniel Brown, Wyatt Byron

Classics

*The Fall of the City* 

By dramatizing the fall of the city of Troy as described in Virgil's *Aeneid* in the context of the falls of other cities and societies (including Babylon and Constantinople; Sodom and Gomorrah; Masada), we hope to illustrate the modern moment: Syria, Ukraine, and the westward refugee movement.



# Julianna Bauer, Kayla Lewis, Erin Ortega, Eleanor Ruhlin, Adi Shmerling, Samantha Texeira

Research

Abundance, Morphometrics, and Diet Diversity of Invasive Prayer Mantises in SOutheastern Massachusetts

The effects of two species of invasive praying mantis were examined through capture and gut content analysis in order to determine if they have a negative effect on the biodiversity of the fields they have invaded.

#### Cecilia Aruwajoye, Zachary Barao, Jada Prinopoulos-Taylor, Florence Yu

Center for Collaborative Teaching and Learning (CCTL)

Promoting Inclusivity and Belonging through Student-Empowered Pedagogical Partnerships

The Pedagogical Partnerships Program through the Center for Collaborative Teaching and Learning (CCTL) aimed to bring about changes in classroom teaching and institutional practices by developing culturally responsive competencies in the faculty and staff participating in the Spring 2022 pilot program. Four undergraduate students selected by CCTL co-director Deyonne Bryant partnered with faculty Ada McKenzie Thomas (English), Aubrey Westfall (Political Science), Rachel DeCoste (Mathematics), and librarians Megan Brooks (Dean of Library Services), Cary Gouldin (Humanities and Student Success Librarian), and Kate Boylan (Director of Archives and Digital Initiatives). Student consultants Cecilia Aruwajoye '24, Zachary Barao '23, Jada Prinopoulos-Taylor '24, and Florence Yu '24 used their personal experiences as learners, along with competences developed in weekly training sessions led by Deyonne Bryant, to advise their faculty and staff partners on making Wheaton classrooms and other instructional spaces more inclusive and accessible to a culturally diverse population of learners. Jada, Florence, Ceci, and Zachary share their experiences of the pedagogical partners program.



#### Wheaton College Dance Company Performance

#### Theater and Dance

Against All Odds is a mixed repertory concert presented by the Wheaton College Dance Company in Weber Theatre from May 5- May 7 with a 7:30pm curtain time. Works included are guest artist, Kurt Adametz, and choreographer Diane Arvanites and members of the graduating class of 2022 and include TRYBE and Tap Out Loud as guests in the performance.

## **Participants**

Sydney Alves
Victoria Mattie
Jia Fitzgerald
Meghan Moran
Nat Gibbs
Eve Poliskey
Pierce Gillim
Mary Swansburg
Ellie Guerin
Emerson Stout
Isabelle King

#### Theater and Dance

Acting and Directing Showcase

The acting students this spring semester have shown great resolve in learning the foundations of making theatre come to life while navigating the challenging obstacles of the Covid pandemic. They have found a way to see one another and build meaningful community, even while masked. Their joy and ability to play with one another has inspired me and lifted my spirits. I nominate these students for their bravery, perseverance, and to share the talent that has begun to bubble up to the surface, surprising and delighting them. Bravo!



## **Participants**

Elijah Akindolie Emanuel Johnson Liam Rauch-Moore Bailey Amazeen Mason Keene Nafissatou Sall Tori Burgess Minely Millan Katherine Steinberg Luis Burgos Jason Mndolwa Bethany Tetreault Lucas Caradonna Ethan Thombs Reka Moscarelli Morgan Calverley Savannah Nesbitt Julia Thompson Willow Covendecker Paige Nowlin Vincent Versteeg Alec Devine Kristopher Nunez Delaney Walkesmontes

Elian Fabing Ansuya Pandey Yolanda Wang

Nicky Howard-Rogers Taksh Patel Darien Webb Malin Ingare Tyler Phinney Han Yang

## @capacity

#### Visual Art

The Visual Art seniors have spent their entire year working on their exhibition @capacity. Each student has created a unique body of work that is representative of their personal styles, identity and at times pressing social issues concerning ideas around body image and mental health. This work highlights how the creative process and the visual arts serves as a form of research, self-discovery and communication.

Lydia Alberts

Amanda Barclau Molly Davis Grayson Beaulieu Vu Do

Olivia Doherty Whitney O'Reardon

Tabitha Gilligan

Ella Graml

Ethan Thombs

Joseph Joffrion

Sophia Kahn

Gracie Vicente

Huixian Li

Sofie Weston

Elizabeth Matre

Brooke Morganti

Abigail Strobel

Ethan Thombs

Kayla Turpin

Sosphia Kayla Turpin

Gracie Vicente

Sofie Weston

Xingyu Xiao

Emma Yount

## Wheaton Academic Festival Acknowledgements

For Academic Festival 2022, we would like to express our gratitude for the efforts of Emma Lenskold '22 for her work on the program.

Special thanks are especially due to the staff who dedicated their time and energy to this event: Anice Barbosa, Primrose Boynton, Francisco de Alba, Jessica Kuszaj, Lisa Lebduska, Kathy Marando, Kate Mason, Karen McCormack, Leah Niederstadt, Rachel McElaney, Alison Ricco, Angie Sarhan, and Emma Sullivan.

