VILLANOVA UNIVERSITY
HONORS PROGRAM
SENIOR THESIS RESEARCH CONFERENCE
DECEMBER 1, 2023
GAREY HALL
Check out the Honors Thesis Blog!
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Summer Abdelbarry is a senior from Manasquan, NJ majoring in Economics, Humanities, and Peace and Justice. She has always been intrigued by the inner workings of the United States prison system and quality of life of incarcerated populations. With a minor in Arab and Islamic Studies, she is also fascinated by the ways in which religion impacts the lives of those within correctional institutions, specifically the religion of Islam. Her thesis examines the transformative impact of incarceration on the religious beliefs and practices of Muslim women, investigating how a prison environment and the unique challenges faced by these women may lead to a reorientation of their faith.
Bolu Adesanmi is a Physics major from Lagos, Nigeria. Her thesis explores and aims to demonstrate a field effect transistor using 2D materials for computing hardware security applications. She has been involved in several research projects and loves helping students engage with research, so she has been a student ambassador for Villanova’s Center for Research and Fellowships since 2021. After graduation, she plans to pursue a PhD in Physics or Electrical Engineering, continuing to investigate new materials, devices, and technologies for computing applications.
Andrew Bogdan is a senior Political Science and Humanities major from Annapolis, Maryland. Andrew has an interest in social justice and has always been very service oriented. Since his freshman year, he has developed an interest in Native American Sovereignty, as well as Native American History. Outside of academics, Andrew is very involved at Villanova. Andrew is Vice President of Villanova Refugee Empowerment, where he leads frequent service projects. Andrew is also involved in Phi Sigma Pi, Pre Law Club, and the orchestra, where he plays the cello. Andrew has hopes to go to law school to study human rights law and Native American litigation.
Sarah Cotteta is a senior from Plymouth Meeting, PA majoring in Biochemistry and Humanities. In college, she became interested in the intersection of healthcare and ethics, and her thesis will act as a culmination of these efforts. She will be combining texts in Care Ethics with patient narratives and academic studies to call for a revision of the care in nursing homes and assisted living facilities on humanistic grounds. Outside of her academic endeavors, Sarah is the captain of Villanova EMS, where she leads the student-run EMS agency on campus. After Villanova, Sarah plans to attend medical school and continue her interests in healthcare and patient advocacy.
Sex Differences in Stress-Induced Alterations of DNA Methylation

Major(s): Cognitive & Behavioral Neuroscience
Tutor: Dr. Benjamin Sachs
Alumni Mentor: Brian Emmert ('15), MD

Matt Domanico is a Cognitive and Behavioral Neuroscience major with minors in Spanish and Psychology from Doylestown, PA. During his time at Villanova, he has been involved in leadership positions for RUibal, the Honors Program, and Special Olympics. Throughout his coursework, Matt has taken an interest in the clinical and biological mechanisms of stress. This focus has culminated in his thesis project, wherein he investigates the effects of chronic stress on mice, including whether there is any difference between sexes. By analyzing DNA methylation levels, the extent to which stress alters gene expression - a phenomenon known as epigenetics - can be revealed. After graduation, Matt plans on working in clinical research and eventually pursuing medical school to become a pediatric specialist.
Lejla Elmazi is a Psychology and Sports Studies double major with a minor in Sociology at Villanova University. Her passion for Sports Psychology informs her thesis and is what led her to individually design her own Sports Studies major. As a first-generation college student and an aspiring Sports Psychologist in a male denominated industry, Lejla is no stranger to adversity. The challenges that Lejla and many other women continue to face in the inequitable sports domain are the grounds for her thesis’ exploration of the psychological effects of gender discrimination amongst athletes. As delineated by her choice of majors and minor, Lejla finds great importance in the connections between mental health, social issues, and the sports world, which she hopes to embody through her thesis.
Gerremy Ferguson is a senior Computer Science major with minors in Spanish and Engineering Entrepreneurship from Westchester, New York. At Villanova, Gerremy has involved himself in various academic disciplines and student life experiences. Some of his most formative experiences were as Secretary and President of Blue Key, as an RA, and in University Information Technologies. With his interests and involvement, Gerremy intends to craft his thesis on the current techno-industrial wave, Industry 4.0, and its ability to address global humanitarian issues. He will use different Industry 4.0 sectors to analyze the wave’s potential outside of the technological sphere.
Paisley Hahn is a Criminology and French double major from Gaithersburg, Maryland. Through internships at a Sheriff’s Office and Domestic Abuse Project, and as a member of Villanova’s Philly Justice Project, Paisley has learned about many facets of the criminal justice system. For her thesis, she is focusing on her two primary interests: policing and juvenile justice. Her thesis uses pedestrian stop data from Chicago and Philadelphia police departments to explore differences between adult and juvenile stops.
KATHLEEN JORDAN

Analyzing the Political and Conflictual Effects of Artisanal and Illicit Gold Mining in the Sahel

Major(s): Political Science, Economics
Tutor: Prof. Lance Kenney
Reader: Dr. Maira Reimao

Katie Jordan is a senior from San Diego, CA studying political science and economics. Building on a long-held interest in international relations how informal and even illicit activity interacts with formalized political and economic institutions, her thesis explores the multifaceted role of artisanal small-scale gold mining (ASGM) in conditioning state, sub-state, and transnational relationships and structures in the Sahel. When she's not making lattes at Rosie's Coffee, Katie works as a research assistant in Villanova's Economics Department and is involved in the Back on my Feet community service group. After graduating, she hopes to pursue a master’s degree in international relations and a career in the Foreign Service.
Abby Keevins is a Cognitive and Behavioral Neuroscience major with a psychology minor from Lincolnshire, Illinois. She is on the Villanova volleyball team and is the President of Every Mind Matters, the mental health advocacy group within Villanova athletics. Because of her involvement in the mental health field, she is interested in the connection between the gut and the brain, specifically how gut health impacts mental health. She conducts research in the Sachs lab studying stress and depression susceptibility in mice after administering DSS, a compound that causes an inflammatory bowel response, and conducting various stress tests. After graduating from Villanova, she plans to continue research in the cognitive science field and later attend veterinary school.
Colin McGarry is a Mathematics and Statistics double major from Northport, NY. Colin took an interest in financial crises and how they impact different countries after taking economic classes at Villanova. Colin’s thesis researches economic data from 8 prominent countries in the global economy, and why the financial crises of 2008 and 2020 impact them differently. Some relevant data includes inflation, GDP, unemployment, and life expectancy. These metrics measure not only economic effects, but also the quality of life in a country during times of financial trouble.
Catherine Messier is an English and Gender and Women’s Studies double major from Attleboro, MA. In Honors, she was a member of the Interdisciplinary Scholars cohort, and she serves as a peer mentor, ambassador, and office assistant for the program. Her thesis seeks to recover wives’ uncredited contributions to their husbands’ works of literature in the 20th century. Specifically, she will focus on two authors as literary case studies: T.S. Eliot’s wife Vivienne Eliot and F. Scott Fitzgerald’s wife Zelda Fitzgerald. She will frame this research with the definition of authorship, the history of editing processes, and the boundaries of collaboration. Ultimately, Catherine hopes to use her research as a feminist recovery project which examines the importance of giving credit to female authors, especially those whose authorship has been discredited or ignored.
Natalie Monti is a Political Science major with a Peace and Justice minor from Cary, NC. Throughout her time at Villanova, she has been a part of various student life experiences, including Blue Key, Orientation, and Greek Life. Natalie had always found interest in social justice issues surrounding areas of political conflict and phenomenon, and has long had an interest in the field of terrorism studies and counterterrorism efforts. Her thesis seeks to better understand the conditions of groups that choose to utilize violence and why that choice was made. She hopes to combine existing theories with analysis of organizational writings and communications to determine the decision making process that results in the choice of violence as a means to political ends. After graduation, Natalie hopes to move to Washington D.C. to pursue work in the nonprofit or NGO sector.
Gina Ngo is a Biology major with minors in Peace and Justice, and Chinese Language and Cultural Studies from Philadelphia, Pennsylvania. She has been conducting research in the Bamezai lab since her first year at Villanova University. Her thesis focuses on the role that the Ly-6A glycoprotein plays on the metabolic exhaustion of tumor-infiltrating lymphocytes. She is a leader of Villanova Refugee Empowerment, volunteer at Philadelphia’s Nationalities Service Center, mentor for EducationUSA, and violinist in Villanova Chamber Strings. After graduation, she plans to take a gap year before applying to medical school and pursuing a career as an oncologist.
HANNAH PHILLIPS

Life, Liberty, and the Right to Bear Arms: A Look at the Ethics of Gun Control in the United States

Major(s): Political Science, Humanities
Tutor: Dr. Daniel Mark
Reader: Prof. Patrick Brennan

Hannah Phillips is a Political Science and Humanities double major, with minors in Communication and Spanish, from Downingtown, PA. On campus, she is involved in several organizations including Special Olympics, Day of Service, Phi Sigma Pi, and Blue Key. Throughout her undergraduate career, she has developed a passion for public policy, and what a well-lived human life entails. Her thesis combines both of these interests, looking at the ethical frameworks that should or have already, shaped gun legislation in the United States. After graduation, she hopes to research public policy in the Czech Republic before attending law school.
Vassil Tchaprazov is a management major with marketing and psychology minors from Des Moines, Iowa. His research seeks to identify what variables mediate the relationship between employees’ perceptions of a virtual work climate and workplace gossip. The inspiration for his thesis developed after he observed how frequently gossip – in both online and in-person forms – occurred at his internship. On campus, Vassil serves on Club Swim’s core executive board, and has previously served as the team’s secretary. After graduation, he aspires to pursue a PhD in Organizational Behavior and continue his research in this exciting field!
CHRISTINA TILLINGHAST

Exploring Combinatorial Effects on Antitumor Immune Responses in a Mouse Melanoma Model Using a Dual Immune Checkpoint Blockade for Ly-6A and PD-1

Major(s): Biology, Peace & Justice
Tutor: Dr. Anil Bamezai
Reader: Dr. Megan Povelones

Christina Tillinghast is a senior Biology and Peace and Justice double major from Watchung, NJ. She is an EMT on the student-run Villanova EMS and serves as a Community Outreach of Villanova (COV) Coordinator. For her thesis, Christina is working in Dr. Bamezai’s lab to explore antitumor immune responses in mice. Specifically, she studies how expression of two immune checkpoint inhibitors, Ly-6A and PD-1, impact tumor growth rates and survival rates in a mouse B16 melanoma model. She seeks to uncover the effectiveness of a dual immune checkpoint blockade, which holds implications for combinatorial therapies within the growing field of cancer immunotherapy.
Elizabeth Weiss is a Communication and English double major with minors in Creative Writing and Writing and Rhetoric from Weston, MA. On campus, she is involved in Blue Key, NOVADance, and is President of her sorority, Alpha Phi. Throughout her studies within the Communication department, she has become fascinated by ethnographic research and performance as a method of understanding human behavior. Her thesis project dives into the nuances of labeling women as 'crazy' within romantic contexts and explores the portrayal of 'crazy' women in entertainment. This research will culminate in a powerful performance she will write and direct in February, aiming to challenge societal narratives and redefine perceptions. After graduation, she will be moving to New York City and working in Corporate Events Planning.