



ADVANCED STUDIES PROGRAM

25th Annual

ADVANCED STUDIES PRESENTATIONS

Monday, August 17, 2026

Peter B. Benedict Library

Light breakfast begins at 7:30 a.m.



Lily Browning 8:00 - 8:30 a.m.

Reestablishing Military Credibility: How the Gulf War's New Criteria for Foreign Involvement Rectified the Rudderless Gradualism of the Vietnam War

Numerous differences can be highlighted in both the motivations for and the outcomes of the Vietnam War and the Gulf War. Looking at this through a broader lens, the Vietnam War has widely been considered a failure on the part of the United States, while the Gulf War is viewed as a success. However, something as complex as war can not be categorized merely as a success or a failure. The Vietnam War cast a shadow of guilt and regret over the United States. The U.S. military lost upwards of 60,000 American lives and committed atrocities against innocent Vietnamese civilians. The United States allowed all of this to happen in the name of fighting communism and upholding a reputation, both of which ultimately proved to be futile efforts. Traditionally, with the wars being roughly 15 years apart, there have been few comparisons drawn due to the stark differences between location, length of combat, and strategy used. This research, however, analyzes how the arbitrariness, disorganization, and unsuccessful attempts by the U.S. government during the Vietnam War-era drove the government to achieve more quantifiable success in the liberation of Kuwait and how that success then impacted the future of the United States' foreign military operations.

Faculty Mentor: Mrs. Infanzón
Non-Faculty Mentor: Dr. Frakes

Jackson Colontrelle 8:30 - 9:00 a.m.

The Legacy of Steel: Industrialization, Environmental Inequality, and Modern Respiratory Health Disparities in Pittsburgh

This project evaluates the degree to which cases of respiratory disease, such as asthma and chronic obstructive pulmonary disease, and health disparities within Pittsburgh's neighborhoods reflect the spatial and social effects of steel-era geography between 1940 and 1950. Determining the spatial and social effects of steel-era geography included an investigation of the locations of mills and coke production factories, as well as residential segregation through redlining and discriminatory housing practices. After careful examination of primary sources from muckrakers, data sourced from the 1940s showing industrial pollution levels, historic legislation passed at the time, and maps depicting neighborhoods along with mill locations, it can be concluded that modern-day cases of respiratory disease are not solely the result of current cultural or environmental conditions but also of decades of industrial pollution, historic socioeconomic practices, and disproportionate post-industrial development.



Faculty Mentor: Mrs. Infanzón
Non-Faculty Mentors: Mrs. Gadd, RN



Jack Curley 9:00 - 9:30 a.m.

Literacy Trends in Florida: Reading Achievement, Educational Policy, and the Science of Reading

This study examines literacy trends in Florida and Indian River County to better understand the State and District education systems, their current and historical challenges, and what future initiatives would be most effective in granting greater equity, opportunity, and cognitive growth through reading development. In line with established scholarly consensus, this analysis targets the third-grade benchmark. At this stage, students pivot from mastering mechanics to reading in content-specific areas. Following third grade, students begin to use critical thinking for self-guided advancement in subject areas with distinct literary requirements. This study will further discuss how literary development is complicated by cultural, socioeconomic, and technological factors; current research shows a strong correlation between literacy and poverty, a close relationship linking low literacy with incarceration, impacts of technology on early education, and a shifting interest away from valuing reading. This study will also identify effective strategies to improve reading proficiency, analyzing peer-reviewed research, scholarly books, government reports, and literacy data from nonprofit organizations. Ultimately, this project will determine what further steps can be taken to expand literacy and to assess how Indian River County's model of community-driven intervention could be applied more broadly across the state.

Faculty Mentor: Mrs. Barnes
Non-Faculty Mentor: Mr. Sowers

Valentina Henriquez 9:30 - 10:00 a.m.

The Impact of AI on Engaged Learning Amongst the Youth

The integration of Generative Artificial Intelligence into education has become a subject of intense skepticism, as many are drawn to question the potential negative implications of utilizing AI as a tool for learning or, rather, a tool to replace learning. As of May of 2025, the College Board reports that 84% of students use generative AI tools for their schoolwork, completing tasks such as brainstorming, editing, revising, conducting research, and finding sources. The emergence of what can be understood as near-ubiquitous acceptance of AI amongst the youth raises the question of the potential negative impact of outsourcing one's capacity for reflection and critical thinking about educational material, especially during adolescence, when cognitive development is underway. This project examines how the misuse of generative artificial intelligence affects the cognitive processes necessary for deep learning and academic engagement among youth by analyzing surveys and scientific studies documenting its effects on students' critical thinking, retention, and overall understanding.



Faculty Mentor: Mr. Tuna
Non-Faculty Mentor: Dr. Hebig

Break: 10:00 - 10:15 a.m.



Caíri Infanzón 10:15 - 10:45 a.m.

Humanitarianism and Propaganda: Soviet and Western Allies' Liberation of Nazi Concentration Camps

This project evaluates the comparisons and contrasts between the Soviet Union and the Western Allies in regard to the immediate humanitarian liberation of Nazi concentration camps and how that paved the way for future Cold War propaganda. Within the analysis of the immediate humanitarian response, four specific camps were examined: Auschwitz and Majdanek, which were liberated by the Soviet Union; as well as Dachau and Buchenwald, which were liberated by the Western Allies. During the liberation process, propaganda from both sides was also studied to better understand the geopolitical landscape that formed in the early Cold War period. Overall, this research concluded that the Soviet Union and the Western Allies were similar in their immediate humanitarian response towards concentration camp victims; however, they significantly differed in their intentions of producing propaganda.

Faculty Mentor: Mrs. Infanzón
Non-Faculty Mentor: Mr. Sturgeon

Jenessa Kendall 10:45 a.m. - 11:15 a.m.

The Efficacy of Middle School Standardized Testing

This research project investigates the efficacy of nationally administered standardized tests in middle school. It examines whether these assessments effectively measure student learning and support long-term academic success and well-being. The study explores the historical development of standardized testing, the policies that expanded its use in American schools, and the arguments surrounding its continued implementation. Drawing on research, reports, and studies, this project evaluates the impact of standardized testing on academic achievement, classroom instruction, student mental health, and educational equity. Particular attention is given to Middle School students because this stage of development is marked by significant cognitive, emotional, and social growth that may influence how students respond to high-stakes assessments. By analyzing both the benefits and limitations of standardized testing, this research aims to determine whether these assessments remain an effective tool for evaluating student performance or whether alternative assessment methods may provide more accurate and meaningful measures of learning.



Faculty Mentor: Mrs. Mohr
Non-Faculty Mentor: Ms. Jones



Isabella Peter 11:15 - 11:45 a.m.

A Review of Commonly Used and Newly Developed Mosquito Control Techniques

Mosquitoes are responsible for the greatest number of human deaths, causing over 700,000 annually. Scientists have studied and employed various mechanisms, including chemical insecticides, Wolbachia-infected mosquitoes, and genetically engineered gene drive systems, to control mosquito populations and reduce the incidence of mosquito-borne diseases in the area. Chemical insecticides are among the most well-known methods of mosquito control, having been used for over 50 years and, for the most part, achieving success in reducing mosquito populations and disease in those areas. Yet they have become increasingly ineffective as mosquitoes have evolved resistance to them, and the chemicals harm the environment, other organisms, and humans. Wolbachia-based mosquito control introduces the bacterium Wolbachia into a mosquito population, exploiting its ability to cause cytoplasmic incompatibility to reduce mosquito population size and prevent mosquitoes from transmitting pathogens, thereby reducing disease prevalence in an area. The mechanism by which the Wolbachia bacterium stops pathogens is not well understood by scientists, so further research is needed to prevent potential failures. Gene drive systems are a more recent technology which are able to increase the number of offspring that have a specific gene, in this case, a gene that will allow for a decrease in disease prevalence. However, its use raises ethical concerns as humans evaluate the role of genetic engineering when introduced into the wild. This project investigates each of these mosquito control mechanisms and analyzes which is most effective, considering its success in reducing disease in an area, potential failures, implementation costs, and environmental effects.

Faculty Mentor: Ms. Buckley

Non-Faculty Mentor: Dr. Lima de Souza

Theodore Reicher 11:45 a.m. - 12:15 p.m.

A Review of the Sustainability of the People's Republic of China's Belt and Road Initiative and the Examination of Chinese Foreign Policy with Nations in the Global South

Through various loans and trade agreements structured under the 2013 Belt and Road Initiative (BRI), 2026 saw, for the first time, a majority of the population in developing countries see China as a more favorable ally than the United States and the European Union. This project examines the sustainability of the BRI and whether China's diplomatic efforts will ultimately contribute to the emergence of a China-dominated global order or enable Western nations to reassert their influence in response to the perceived challenge of China's rising power. This questioning is prompted by BRI's continued criticisms from various Western nations, IGOs, and NGOs of economic coercion, political leverage, and exploitative practices toward participating nations. This paper additionally investigates the hypothetical reasons why developing countries remain in or leave the BRI, as well as why the Xi Administration deliberately disburses money that's unlikely to be repaid.



Faculty Mentor: Dr. Infanzón

Non-Faculty Mentor: Mr. Feagin

Thank you to the Faculty Panel:

Terence Mitchell, Director, Advanced Studies Program

Dr. Stuart Hirstein, Head of School, Saint Edward's School

Jack MacMullan, Head of the Upper School

Michele Sternberg, Co-Director of College Counseling and Academic Dean

Ann Wald, Co-Director, College Counseling

Dr. Scott Mohr, College Counseling Department

Lori Infanzón, Department Head: History and Social Science

Meghan Buckley, Department Head: Science

Molly Martin, Department Head: World Language

Sandy Baker, Department Head: Mathematics

Kathleen Raymond, Department Head: Fine Arts

Whitney Barnes, Department Head, English Department

Stephany Cooksey, Head Research Librarian, Peter B. Benedict Library



MISSION STATEMENT

To inspire a nurturing community of enthusiastic learners, critical thinkers and responsible leaders.