

25TH ANNUAL

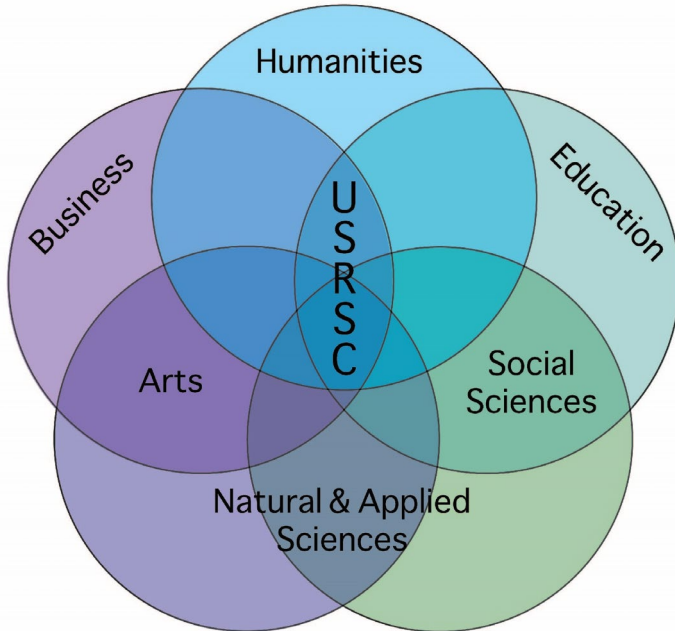


LOYOLA UNIVERSITY MARYLAND

— 1852 —

UNDERGRADUATE STUDENT RESEARCH &
SCHOLARSHIP COLLOQUIUM

APRIL 25, 2025



ACADEMIC EXCELLENCE

WEEKEND

Undergraduate Student Research & Scholarship Colloquium

Once a year Loyola University Maryland hosts a campus-wide forum highlighting undergraduate student research and scholarship. The goal of the colloquium is to encourage scholastic endeavors that focus on either the generation of new knowledge or creative integration of existing scholarship.

Today's presentations will be evaluated based on the following criteria:

- A. *Clear Goals: Does the student-scholar state the basic purpose(s) of his or her work?*
Considerations: Defining objectives that are specific, realistic, and achievable.
Identifying important questions in the field.
Stating the objectives in a manner appropriate for a lay audience.
- B. *Adequate Preparation: Does the student-scholar show an understanding of existing scholarship and/or scholarly processes in the field?*
Considerations: Referencing relevant approaches, scholarship, and/or creative work in the field.
Gathering evidence relevant to stated goals.
Bringing the necessary skills to his or her work.
- C. *Appropriate Methods: Does the student-scholar use methods appropriate to the goals?* Considerations: Selecting appropriate methods.
Applying effectively the methods selected.
Modifying procedures or methods in response to changing circumstances?
- D. *Meaningful Results: Does the student-scholar achieve his or her goals?*
Considerations: Conclusions are well-supported and convincingly argued.
Contributes meaningfully to the field of study.
Opens additional areas for further exploration.
The student-artist's work is aesthetically and expressively effective.
- E. *Effective Presentation: Does the student-scholar use a suitable style and effective organization to present his or her work?*
Considerations: Clear oral or written presentation of the work.
Effective organization of the presentation
Visual appeal of the presentation.
- F. *Reflective Critique: Does the student-scholar critically evaluate his or her own work?* Considerations: Demonstrates an understanding of the strengths and weakness of the work.
Is able to respond thoughtfully to questions about the work.

SCHEDULE OF EVENTS

3:00-4:30PM • ORAL PRESENTATIONS

FERNANDEZ CENTER, 333 – Natural & Applied Sciences Session 1

BEATTY HALL 318– Business School Session 1

BEATTY HALL 236 – Social Sciences Session 1

FERNANDEZ CENTER, 237 – Social Sciences Session 2 with Humanities,
and Fine Arts

2:30-3:00PM • POSTER JUDGING (*JUDGES ONLY*)

FERNANDEZ CENTER, 1ST FLOOR (POSTERS)

BEATTY HALL 108 (*MEETING ROOM FOR THE JUDGES*)

3:00-5:00PM • POSTER PRESENTATIONS AND RECEPTION

(Open to Public) Poster Judging Continues

FERNANDEZ CENTER, 1ST FLOOR

5:15-6:00PM • KEYNOTE SPEAKER & AWARDS CEREMONY

STUDENT CENTER, 4TH FLOOR PROGRAMMING ROOM



Welcome: Dr. Michiko Iwasaki, Associate Professor of Psychology

Remarks from the President: Terrence M. Sawyer, J.D.

Keynote Introduction: Dr. Jessica Haddaway Enos, Assistant Clinical Professor of Education

Keynote Speaker: Dr. Margarita Gomez Ph.D., Undergraduate Program Director Elementary Education, Associate Professor of Literacy Education

Presentation of Awards

 Detailed schedule begins on page 4 

ORAL PRESENTATIONS

BUSINESS SCHOOL SESSION 1

BEATTY HALL 318

JUDGES: Sara Scalenghe & Aleezay Khaliq

#1: The Effect of Maryland's 2022 Minimum Wage Increase on Employment in the Fast-Food Industry

Ethan Broccolina

Faculty Mentor: Kerry Tan (Economics)

#2: Role of University Administrators in Social Media Usage

Johathan Vanegas

Faculty Mentor: Pethigamage Lami Perera (Business)

#3: At the Crossroads of Innovation: Bridging the Digital Divide for a Connected Future

Caileigh Grimberg & Jack Tartamosa

Faculty Mentor: Lynne Elkes (Business)

#4: The Anatomy of a Roblox Business

Ethan D'Souza (Finance, Applied Mathematics, Quantitative Economics)

Faculty Mentor: Jon Weinstein (Entrepreneurship)

NATURAL & APPLIED SCIENCES SESSION 1

FERNANDEZ CENTER 333

JUDGES: Cassandra Helbert & Marion Davidson

#1: How Dogs Experience Loss: The Impacts of Permanent Disruption of Familial Social Structure on Age Related Decline in Canines

Kathryn Shannon

Faculty Mentor: Marie Lau (Biology)

#2: Chamomile's Cost-Effective Methods of Apigenin Extraction

Markus Dudley

Faculty Mentor: Maren Blohm (Biology)

#3: Hand Spasticity Assistive Device

Alexandra Artiga

Faculty Mentor: Suzanne Keilson, (Engineering)

#4: Presumptive Testing for the Comparison of Human and Animal Blood Droplets

Olivia Welch

Faculty Mentor: Rhys Williams (Forensic Studies)

SOCIAL SCIENCES SESSION 1

BEATTY HALL 236

JUDGES: Dianna Bez & Bahar Jalali

#1: No Corn, No Country: A Content Analysis on U.S. Immigration Policy

Annabella Ritter-Pleitez

Faculty Mentor: Oral-Matt Beverlin (Political Sciences)

#2: Potential Strategies and Implications of China's Taiwan Takeover

Benjamin Bison

Faculty Mentor: Carsten Vala (Political Sciences)

#3: The Impact of Alpha Brain Wave Enhancement on Visual and Auditory Reaction Times in Athletes

Lauren Quinn

Faculty Mentor: Jeff Lating (Psychology)

#4: Perception about Group Assignments; An examination between students' personality and teamwork receptiveness

Alessia Petroni, Willian Hernandez, & Alaina Graham

Faculty Mentor: Michiko Iwasaki (Psychology)

#5: Attitudes toward Artificial intelligence Use in College Education: Examination of undergraduate and faculty perspectives

Mary Donnelly, James Rego., & Conrad Horchos

Faculty Mentor: Michiko Iwasaki (Psychology)

#6: Navigating Alcohol Use: The Role of Attachment Style and Decisional Balance in the Transtheoretical Stages of Change

Samantha Puglisi

Faculty Mentor: Lindsey Neutzling (Psychology)

SOCIAL SCIENCES, HUMANITIES & FINE ARTS

SESSION 2

FERNANDEZ CENTER 237

JUDGES: Rachel Grove & Andrew Ross

#1: *Examining Cultural Appropriation Attitudes, Personality and Privilege Awareness in Undergraduate Students*

Victoria Scott, Nima Rafei, Brennon Schifman

Faculty Mentor: Michiko Iwasaki (Psychology)

#2: *Perception Towards Core Requirements Among Undergraduate Loyola University Maryland Students*

Camryn Donaldson, Safina Yacub

Faculty Mentor: Michiko Iwasaki (Psychology)

#3: *Exhuming Buried Memory: An Investigation into Baltimore's Black Burial Spaces and Public Memory*

Elizabeth Thompson

Faculty Mentor: Stephen Park (English)

#4: *Incomplete Justice: Evaluating Transitional Justice for Survivors of Wartime Sexual Violence*

Olivia Pare

Faculty Mentor: Mary Kate Schneider (Political Science)

#5: *Boricua de Pura Cepa": A Case-Study of the Puerto Rican Independence Movement in the Twenty-First Century*

Yami Hernandez Santos

Faculty Mentor: Joan Ricart-Huguet (Political Science)

#6: *Charm City*

Sophia Randle

Faculty Mentor: Professor Mary Beth Akre (Visual Arts)

POSTER SESSIONS

EDUCATION SESSION 1

FERNANDEZ CENTER, 1ST FLOOR- STARTING AT 3:00PM

JUDGES: Carrie Horwitz Lang, Stacy Williams, Melissa Gilroy

#1 *Are You Open or Closed to Syllables?*

Madison Donovan

Faculty Mentor: Melissa Mulieri

#2 *Word Games to Enhance Vocabulary Comprehension for English Language Learners*

Katharine Burris

Faculty Mentor: Melissa Mulieri

#3 Enhancing Sight Word Recognition Through Differentiated Intervention

Lindy Hill

Faculty Mentor: Any Consentino

#4 Increasing Student Comprehension with Phonological Awareness Practice

Taylor Richardson

Faculty Mentor: Melissa Mulieri

#5 Improving ELL Reading Comprehension with Bilingual Testing and Graphic Organizers

Isabelle Braudakis

Faculty Mentor: Melissa Mulieri

#6 Decoding Decoding

Jackie Lewis

Faculty Mentor: Melissa Mulieri

#7 Language Comprehension's Influence on Mathematical Word Problems

Vilnis Chakars

Faculty Mentor: Melissa Mulieri

#8 Addressing Literacy Gaps through Small-Group Intervention

Kiera Doherty

Faculty Mentor: Melissa Mulieri

#9 Increasing Coherence in Student Writing using Organizational Tools

Grace Sanz

Faculty Mentor: Melissa Mulieri

#10 Foundational Literacy Components

Tie Manuel

Faculty Mentor: Melissa Mulieri

EDUCATION SESSION 2

FERNANDEZ CENTER, 1ST FLOOR- STARTING AT 3:00PM

JUDGES: Kathleen Siren, Melissa Gilroy, Jessica Enos

#11 Ownership and Responsibility in Singing

Christina Franciosa

Faculty Mentor: Antoinette Carr

12 The Importance of Literacy Knowledge for Elementary Students

Fiona Hickey

Faculty Mentor: Antoinette Carr

13 Increasing Student Achievement in Word Recognition and Phonological Awareness with Differentiated Instruction Strategies

Bayless DeSmit

Faculty Mentor: Melissa Mulieri

14 Mastering Sight Words

Molly Schindler

Faculty Mentor: Melissa Mulieri

#15 Enhancing Reading Skills through Vowel Decoding Practice

Hannah McCardell

Faculty Mentor: Melissa Mulieri

#16 Increasing Student Achievement in Writing Conventions

Kelsey O'Hara

Faculty Mentor: Jessica Enos

17 Closing the Gap in Literacy

Grace O'Brien

Faculty Mentor: Amy Cosentino

18 Context for Vocabulary Words

Kayla Haug

Faculty Mentor: Melissa Mulieri

#19 Increasing Student Short-Vowel application through Intervention

Abigail Comparetto

Faculty Mentor: Antoinette Carr

#20 Reflective Inquiry Project

Faith Tesoriero

Faculty Mentor: Antoinette Carr

21 Growing Student Achievement in Reading Fluency with Multisyllabic Word Practice

Morgan Rico

Faculty Mentor: Melissa Mulieri

NATURAL & APPLIED SCIENCES SESSION 1

FERNANDEZ CENTER, 1ST FLOOR- STARTING AT 3:00PM

JUDGES: Craig Myrum, Natalie A van Breukelen, Zelalem Yalew

#1 Automation and Machine Learning: How a Robot Can Conduct Its Own Experiments Using Gaussian Processes

Miller Gruen, Aldi Timin

Faculty Mentor: Mary Lowe (Physics)

#2 Natural Compounds Can Reduce Ovarian Cancer-Associated Immune Suppression

Amaya Jones

Faculty Mentor: Cassandra Holbert (Biology)

#3 Sustainable Seed Buttons

Josephine Lightner

Faculty Mentor Maren Blohm (Biology)

#4 Evaluation of Simultaneous Localization and Mapping (SLAM) for Static and Dynamic

Ryan Ziegler

Faculty Mentor: David Hoe (Engineering)

#5 Investigation of Turbulence Model Impact on Numerical Simulation of Savonius Vertical

Brady Westerberg

Faculty Mentor: Robert Timothy Bailey (Engineering)

#6 Determining the Activity of Small Batch Insulin in Promoting Glucose Uptake in 3T3-L1

Tina Sung, Sophie Werner

Faculty Mentor: Lisa Scheifele (Biology)

#7 Comparative Analysis of miRNA Expression Across Breast Cancer Subtypes

Kate Tokach, Nane Tevosyan, Danielle Clarke, Hannah Hargrave

Faculty Mentor: Dr. Michael Tangrea (Biology) and Armina Kazi (Biology)

#8 Generating Automatic Feedback For Introductory Computer Science Students

Joe Fielding

Faculty Mentor: Hoang Bui (Computer Science)

NATURAL & APPLIED SCIENCES SESSION 2

FERNANDEZ CENTER, 1ST FLOOR- STARTING AT 3:00PM

JUDGES: Suzan Keilson, Hoang Bui

#9 Investigating glioblastoma aggressiveness through the manipulation of HELLS gene
Olivia Lowrie

Faculty Mentor: Theresa Geiman (Biology)

#10 Optimizing screening and quantification methods for glargine production in Pichia pastoris yeast

Grace Mills, Muskaan Wadhava

Faculty Mentor: Lisa Scheifele (Biology)

#11 Ro52γ, a novel TRIM21 isoform, links neoantigen production with IFN dysregulation in SLE neutrophils

Yuri Singh

Faculty Mentor: Cassandra Holbert (Biology)

#12 Molecular Insights into Sleep and Memory: Investigating Arc's Interaction with Orexin

Nathan Kerbel

Faculty Mentor: Craig Myrum (Biology)

#13 Investigating the impact of predator exposure on shoaling behavior in juvenile convict cichlids

Sarah Oliver, Hannah Graham

Faculty Mentor: Natalie Van Breukelen (Biology)

#14 Synthesizing a bacterial plasmid for insulin production in humans

Lauren Melick, Harry Hearn

Faculty Mentor: Lisa Scheifele (Biology)

#15 The study of miRNA-222 to drug-resistant and drug-sensitive breast cancer cell lines

Aenisha Goti, Kaylee Serio, Eduardo Ugarte

Faculty Mentor: Armina Kazi (Biology)

#16 Investigating Arc Expression in the Hippocampus Across the Sleep-Wake Cycle

Zaira Rehman, Andres Socarras, Katherine Convery

Faculty Mentor: Craig Myrum (Biology)

#17 Exploring Orexin-Dependent Arc Induction

Andres Socarras, Zaira Rehman, Katherine Convery

Faculty Mentor: Craig Myrum (Biology)

SOCIAL SCIENCES & BUSINESS SESSION

FERNANDEZ CENTER, 1ST FLOOR- STARTING AT 3:00PM

JUDGES: Stephanie Kors, Jeff Lating, **Tepanta Posett**, Matt Beverlin, Selin Gursozlu

#1 Opportunities for Communication in Preschool Classrooms with Children with and without Intellectual and Developmental Disabilities (IDD)

Katie Sanford

Faculty Mentor: Sara Cornett (Speech-Language-Hearing Sciences)

#2 Investigating Semantic and Visual Interference in Monolinguals Using the Stroop Task

Sophia Launay-Falasse, Kayla Nunes

Faculty Mentor: Kathleen Siren; Tepanta Fossett (Speech-Language-Hearing Sciences)

#3 Are Naturalistic Approaches Truly Natural? Examining Augmentative and Alternative Intervention Studies that Support the Communication of Children with Intellectual and Developmental Disabilities

Josh Valentine

Faculty Mentor: Sara Cornett (Speech-Language-Hearing Sciences)

#4 Translation during Stroop task: Effect on sequential bilingual performance

Kayla Nunes, Sophia Launay-Falasse

Faculty Mentor: Kathleen Siren; Tepanta Fossett (Speech-Language-Hearing Sciences)

#5 Predictors of Fear of Falling

Victoria Marcondes

Faculty Mentor: Christopher Higginson (Psychology)

#6 The Impact of Early Childhood Attachment on Adult Relationships

Onyi Kenine, Lilly Jermain

Faculty Mentor: Rachel Grover (Psychology)

#7 The Role of Artificial Intelligence in Religious Information Practices

Dilshi Fernando

Faculty Mentor: Pethigamage Lami Perera (Business)

#8 Green vs Gray: The Impact of Environmental Factors on Wellbeing

Kelly Mirarchi

Faculty Mentor: Christopher Turner (Sociology)

#9 School Start Times and Transportation Legislation: A Review of State Codes Regarding Student Transportation

Ben Chico, Aysheh Abuarqub, Sara Jaffie, Gretchen Morris

Faculty Mentor: Amy R. Wolfson (Psychology)

#10 Using Tiny Homes to Improve the Psychological Well-being of the Homeless Population in Dundalk, Maryland

Madison Scalley

Faculty Mentor: Michiko Iwasaki (Psychology)

#11 Influence of Social Media on Promoting Healthy School Hours for Adolescents

Madelyn Beckett, Chloe Conner

Faculty Mentor: Amy R. Wolfson (Psychology) and Paola Pascual-Ferra (Communications)

#12 Accounting for Early School Start Times: Commute Times and Mode of Transportation for U.S. Teens

Gretchn Morris, Ben Chico, Sara Jaffie, Emma O'Hare

Faculty Mentor: Amy R. Wolfson (Psychology)

THANKS TO OUR REVIEWERS & JUDGES

EDUCATION: Stacy Williams, (Chair of Teacher Education), Carrie Lang (Montessori Education), Melissa Gilroy (Teacher Education), Jessica Enos (Teacher Education), Karen Terrell (Teacher Education), Leah Saal (Teacher Education), Antoinette Carr (Teacher Education), Kristine Larson (Teacher Education), Margarita Gómez (Teacher Education)

HUMANITIES: Selin Gursozlu (Philosophy), Bahar Jalali (History), Andrew Ross (History), Sara Scalenghe (History)

BUSINESS: Dr. Jake London (Business)

NATURAL & APPLIED SCIENCES: Craig Myrum (Biology), Natalie A van Breukelen (Biology), Suzan Keilson (Engineering), Hoang Bui (Computer Science), Cassandra Helbert (Biology), Marion Davidson (Forensic Science), Zelalem Yalew (Computer Science), Bernadette Roche (Biology), Michael Knapp (Mathematics and Statistics)

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SPECIAL THANKS

THE USRSC COMMITTEE WOULD ALSO LIKE TO THANK:

Michael Clark, Assistant Manager, Events Center; Heather Kavanaugh, Events Coordinator; Salvatore Lenzo, Director of Information Systems, Dr. Lisa Oberbroeckling, Associate Vice President for Undergraduate Academic Affairs; Printing Services; and Catering Services

UNDERGRADUATE STUDENT RESEARCH AND SCHOLARSHIP COLLOQUIUM COMMITTEE 2024-25: Michiko Iwasaki, Chair (Psychology), Selin GURSOZLU, Associate Chair (Philosophy), Hoang Bui (Computer Science), Jessica Haddaway Enos (Teacher Education), Pethigamage (Lami) Perera (Information System, Law and Operations)

STATEMENT OF STUDENT-SCHOLARSHIP

Student-scholarship is an intellectual undertaking which creates something that did not exist before, is substantive to the discipline, and is communicated to others. Expressions of student-scholarship generate one or more of the following: knowledge about ourselves and our universe, new insights, and new technologies and applications of knowledge that can benefit humankind. The aim of student-scholarship can be discovery, artistic creativity, integration, or application.

Forms of Scholarship

	Discovery	Artistic Creativity	Integration	Application
<i>Nature of Scholarship</i>	Generates new knowledge through systematic investigation or comprehensive analysis.	Interprets the human spirit; creates and communicates new insights; fosters self-reflection and critical thinking.	Synthesizes and communicates new or different understandings of knowledge or technology and its relevance.	Develops and communicates new technologies, materials or uses; fosters inquiry and invention; develops and refines new methods.
<i>Types of Activities</i>	Data analysis, historical documentation, etc.	Creative synthesis and interpretation.	Integration of new knowledge with existing knowledge; makes connections across disciplines.	Application of existing knowledge towards problem-solving.
<i>Criteria for validating scholarship</i>	Originality, scope, and significance of new knowledge; applicability and benefits to society.	Originality, impact, and duration of public value; scope and persistence of influence and public appreciation.	Usefulness and originality of new or different understandings, applications, and insights.	Breadth, value, and persistence of use and impact.

