



2022  
Florida Statewide  
Symposium on  
Undergraduate Research



Miami Dade  
College



Welcome to the  
Florida Undergraduate Research Association's  
2022 Florida Statewide Symposium on  
Undergraduate Research

I welcome each Florida Undergraduate Research Association (FURA) member and conference participant to this year's Florida Statewide Symposium (FSS) at Miami Dade College. FURA's FSS 2022 focuses on best practices in undergraduate research in ALL disciplines. That is a commendable focus, and I hope that your deliberations on this high-impact teaching practice will be productive for advancing the student success agenda.

Each of you belongs in that well-regarded group of faculty with an unceasing drive to adopt high-impact practices (HIP) in their craft. These are teaching strategies that have proven to not only enhance but, in many cases, accelerate student success in various courses. HIPs tend to have an experiential approach as a common feature, which promotes deeper learning for students.

We love the fact that undergraduate research is one prominent HIP that scores of MDC faculty have utilized over the years to great effect working with students of different preparation levels.

FSS 2022 is a tremendous professional development opportunity packed full of timely topics of practical value to presenters and attendees alike. The different formats of the presentations also make for engaged learning and interactivity.

I am confident you will all enjoy learning and exchanging ideas with colleagues across the state of Florida, and I wish you a most beneficial experience!

Sincerely,

Madeline Pumariaga  
*President*  
*Miami Dade College*

## 2022 FLORIDA STATEWIDE SYMPOSIUM SCHEDULE AT A GLANCE

### DAY 1: THURSDAY, OCT. 6, 2022

11:30 AM - 1:00 PM	FURA Board Meeting
1:00 PM - 1:30 PM	Registration - Room 1102
1:30 PM - 2:30 PM	Welcome Dr. Malou C. Harrison Executive Vice President & Provost Miami Dade College
2:30 PM - 3:30 PM	Session I: Panel Discussions
3:30 PM - 4:30 PM	Session II: Poster Presentations

### DAY 2: FRIDAY, OCT. 7, 2022

8:30 AM - 9:30 AM	Breakfast - Room 1109
9:30 AM - 10:30 AM	Keynote Address - Room 1102
10:30 AM - 12:00 PM	Session I: Mini Presentations
12:00 PM - 1:00 PM	Lunch
1:00 PM - 2:00 PM	Session II: Interactive Presentations
2:00 PM - 3:00 PM	Session III: Interactive Presentations
3:00 PM - 3:15 PM	Break
3:15 PM - 4:30 PM	Session IV: Mini Presentations
4:30 PM - 6:00 PM	Closing Reception & Networking

### DAY 1: THURSDAY, OCT. 6, 2022

#### SESSION I: Panel Discussions

2:30 PM - 3:30 PM

##### Room 2137 | STEM Research as a Tool to Foster Knowledge and Enhance Curriculum

*Maria E. Monzon, Trinidad Argüelles, Dahis Manzanares, Eric Belokon & Claudia Sánchez | Miami Dade College, Miami, FL*

In this presentation, we will discuss our efforts in engaging students in undergraduate research in STEM disciplines. Education in STEM should be student-centered, institutionally supported, and facilitated by faculty mentors. The support of STEM grants at the School of Science aims to improve and maintain STEM interest as well as to facilitate the research process by offering undergraduate internships, field trips, and conference participation. The involvement of STEM faculty mentors in developing interdisciplinary research programs will foster collaboration among students, faculty, disciplines, and institutions by integrating learning outcomes and ensuring program sustainability that will address current social issues. Here we describe the pedagogical effectiveness of incorporating a research component into science curriculum and co-curricular activities. This high impact practice will also be instrumental in the transfer of workforce "soft skills" through translational research applications.

##### Room 2236 | If you build it, will they come? Designing extra-curriculum for undergraduate student researchers

*Amy Reid, DeEtta Mills, Chad Pierre, Asfa Siddiqui, Anil Thota & Connie Viamonte | Florida International University, Miami, FL*

Undergraduate student researchers typically are high achieving students with heavy course loads and commitments to time-consuming research projects. Undergraduate research administrators are aware of the co-curricular activities these students should engage in for preparation for graduate school, however pointing them in the right direction does not ensure engagement. Many universities have excellent resources on campus which are underutilized, especially by busy undergraduate researchers. Florida International University's MARC U\*STAR program received a supplement award to create a curriculum for undergraduate researchers focused on quantitative skills development, professional development, and student wellness. Underestimating the time commitment and skill levels of students led to mixed success rates for the quantitative skills curriculum. Creating a targeted and focused professional development and wellness curriculum through university partnerships led to excellent student feedback and engagement. Assessing the needs of students and targeting the curriculum has led to the continuation of these sessions, expansion to the broader university community, and increased use of university resources.

## SESSION I: Panel Discussions (cont'd)

### **Room 2239 | Hearts and Minds: Engaging and Supporting Students in Undergraduate Research in the Humanities**

*Taurie Gittings-Wheeler, Ildiko Barsony & Kirk Paskal | Miami Dade College, Miami, FL*

The Humanities Edge Undergraduate Research Program (HE-URP) at Miami Dade College (MDC) is an undergraduate research program for the humanities open to any student with minimal entry requirements. The HE-URP features faculty and student support mechanisms throughout the entire program, such as assigned librarians, just-in-time student workshops, professional development for faculty mentors, weekly communications with key updates, lessons, and success strategies, writing tutors, and an in-house virtual symposium for all students to gain conference presentation experience. To demonstrate the findings of their research, participants of the HE-URP have the freedom to choose whichever creative manner worked best for their research and their discipline. In this session, the presenters will share the program philosophy and design and highlight some student projects from HE-URP. The panel of faculty, librarians, and students will offer their own perspectives and experiences from the program.

### **Room 2233 | School of Science Best Practices for Undergraduate Research**

*Victor Okafor, Phil Dickey, Tammy Laberge & Lisa Gonzalez | Miami Dade College, Miami, FL*

The STEM Research Institute (SRI) at Miami Dade College (MDC) began in the summer of 2012, as a pilot of undergraduate research at a then two-year college. Its mission is to provide Hispanic and other underrepresented minority STEM students with high-quality, authentic research experiences to help them acquire knowledge and skills important to their academic success and critical to be competitive in the STEM workforce of the 21st century. SRI has proved to be an attractive hands-on program for many STEM-focused students, stemming from faculty having made undergraduate research at MDC an experiential, as well as a high-impact pedagogical handle, for aiding these motivated students to engage and complete degrees in STEM fields. The implementation is part of the institution's focus on narrowing the STEM equity gap for Hispanics and other minorities. This panel discussion will offer the audience an opportunity to learn about best practices in funding undergraduate research, and how the collaborative efforts of the MDC School of Science, Office of Resource Development, and Faculty Mentors curate an intellectually stimulating and enriching experience for our students.

## SESSION II: Poster Presentations | ROOM 1102

3:30 PM - 4:30 PM

### **Use of Authentic Research to Engage STEM Students in Undergraduate Biology Courses**

*Catalina Aristizabal, Kendra Merchant & David Moore | Miami Dade College, Miami, FL*

### **The Honors Interdisciplinary Thesis at Three: A Summary of Findings**

*Padmini Coopamah Waldron & Amanda Ammirati | University of Central Florida, Orlando, FL*

### **Integrating Undergraduate Research into a Biology Program from Introductory Courses through Capstone Research**

*Tom D'Elia, & Megan Carroll | Indian River State College, Fort Pierce, FL  
Surya Saha | Boyce Thompson Institute, Ithaca, NY*

### **Florida Undergraduate Research Journal: Opportunities for Students**

*Melodie H. Eichbauer | Florida Gulf Coast University, Fort Myers, FL*

### **Teaching the Scientific Method in Core Curricula Through Practical Lab Assignments**

*Graeme Gardner | Lynn University, Boca Raton, FL*

### **On Course for Inclusion: Research-Intensive Courses and Underrepresented Groups**

*Alison Hudson & Natalia Leal Toro | University of Central Florida, Orlando, FL*

### **Research Posters for Assessment of Quantitative Reasoning & Scientific Literacy**

*Alanna L. Lecher, Erika L. Doctor & Cassandra S. Korte | Lynn University, Boca Raton, FL*

### **I.C.O.R.E. Interdisciplinary Community Oriented Research Experiences: A Novel Model for Integrating Authentic Research Experiences into Introductory and Advanced Laboratory Courses at Miami Dade College (MDC)**

*Selwyn A. Williams, Tcha'o Podona, Andreina Aguado Jimenez & Lesly Jean Philippe | Miami Dade College, Miami, FL*

### **Highlights from the Florida Undergraduate Research Association**

*Latika Young & David Advent | Florida State University, Tallahassee, FL*

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## Keynote Address:

**Saif Ishoof**



Saif is the founder of Lab22c, serving as a thought partner to companies, founders, funders, and institutions that are looking to grow and scale their impact and reach in Miami's innovation ecosystem.

Raised in Miami, Saif is an expert on how the forces of disruption are transforming how we learn, work, and play. Saif has been recognized with several prestigious distinctions including as a Presidential Leadership Scholar, a scholar of the German Marshall Fund, and as an Aspen Institute Fellow for Civil Society. Saif is a frequently sought-after advisor and board member to

venture & private-equity backed companies. He is also a speaker and writer on subjects including innovation, talent, American competitiveness, the Future of Work, and Web 3.0.

Saif previously served as the Vice President for Engagement at Florida International University and as the founding Senior Advisor for Innovation & Technology to City of Miami Mayor, Francis Suarez. As VP for Engagement, Saif built transformational partnerships for the university and generated over \$70m to fuel institutional impact. As advisor to Mayor Suarez, he founded the Venture Miami team and worked to assist scores of companies and funds in their relocation to Miami. Saif also advised on several signature projects in the frontier technology domain in support of Mayor Suarez's vision of Miami as the 'capital of capital'. Prior to FIU, Saif served as the founding Executive Director of City Year Miami.

Saif earned his bachelor's degree in Foreign Service from Georgetown University and his Juris Doctorate from the University of Miami School of Law.

## DAY 2: FRIDAY, OCT. 7, 2022

### SESSION I: Mini Presentations | Room 1102

10:30 AM - 12:00 PM

#### **The Making of RUNS (Repository of Undergraduate Nursing Scholarship)**

*Deborah Robinson & Kelly Hernandez | Miami Dade College, Miami, FL*

This mini-presentation will share about the Repository of Undergraduate Nursing Scholarship (RUNS), an initiative funded by the Network of the National Library of Medicine. RUNS is an opportunity for nursing students from the Homestead and the Medical Campus to receive recognition on their process improvement papers for NUR4945C: Advanced Concepts Practicum. Professors who teach this course will select the top student paper from each course section and submit their anonymous papers to a panel of judges consisting of writing tutors and nursing professors. Students whose papers are selected will be recognized at the Nursing Pinning Ceremony and will have the opportunity to be published on the Network of the National Library of Medicine website. Students selected for first and second prize will also receive a monetary award. As award winners, they will also serve as mentors for upcoming Bachelor of Science nursing students.

#### **Integrating Contemplative Pedagogy into Classroom Goals**

*Amanda Koontz | University of Central Florida, Orlando, FL*

Contemplative pedagogy offers an approach to teaching that centers reflection, mindfulness, and the process of being present with the material and in the classroom. With the current “always on” society and socio-political context, students can face an array of distractions and increased anxiety. One way to help address these issues is to offer instruction that encourages students to become present before beginning their work and/or entering the classroom; intentionally reflect on their potential concerns/biases prior to beginning reading and assignments; and offering moments to then reflect on reasonings for their reactions to readings, assignments, and discussions. Each of these steps can then be woven into the goals of the class to transparently center this deep learning/reflexive growth as a form of transferable skills. For those interested, these skills can also be encouraged a way to prevent burn-out in a time of increased social justice and activism. This mini-presentation will offer a brief overview of practices that can help you to consider new ways to integrate contemplative or mindfulness pedagogy into your course objectives, assignment descriptions, extra credit work, and when leading class discussions (in-person and online).

#### **Planning and Laddering are Key to a Successful Research Project in Science**

*Tammy Laberge | Miami Dade College, Miami, FL*

Authentic research in-classroom is a vital part of an undergraduate education. Students are more engaged and more likely to complete their degree. In today's environment we can take advantage of many training opportunities to create a better learning environment and authentic research project for our students. At Miami-Dade College authentic research is performed in CURES laboratories. Along with the regular curriculum, additional molecular techniques are learned in our Principals of Biology 2 CURES' labs. These include sample collection, DNA extraction, phylogenetic analyses, and poster presentations. In science research labs, laddering assignments is a way to keep students moving forward and making progress on their projects. Critical to laddering, is planning to be learning techniques that will be used for the research project early in the process. Students are then able to write a paper using their own data describing their research. This presentation goes over a successful method of laddering for DNA barcoding in science labs aimed at the sophomore level.

#### **Benefitting Historically Excluded Student Populations Through Targeted Undergraduate Research Programming**

*Santiago Luaces, Melodie Eichbauer & Billy Gunnels | Florida Gulf Coast University, Fort Meyers, FL*

Undergraduate research experiences benefit students by improving their professional skills, disciplinary knowledge, and readiness for life post-graduation. However, undergraduate research experiences are often out of reach for students from historically excluded populations (such as Black, Hispanic, and first-generation students) with financial needs or other non-negotiable responsibilities. At Florida Gulf Coast University, the WiSER (Work in Scholarly Experiences and Research) Eagles program addresses this inequity by targeting historically excluded students from any discipline for faculty-mentored research assistantships. Additionally, the program employs a professional-development aspect in its curriculum for the development of different skills that students are rarely exposed to in their courses. Students that were employed through the WiSER Eagles program earned higher GPAs and completed more credit hours during the semester that they participated in the program compared to non-WiSER students in their same majors and academic years.

## SESSION I: Mini Presentations (cont'd)

### **BMS Science Scholars: Faculty-Mentored Undergrad Research with an Industry Partnership Component**

*Jacob Watson | University of Florida, Gainesville, FL*

Beyond120—the experiential learning and career development program of UF's College of Liberal Arts and Sciences—is partnering with the world-leading biopharmaceutical company Bristol-Myers Squibb for a new undergraduate research program that combines traditional faculty-mentored undergraduate research with industry-specific networking, mentorship, and career coaching. Students in the program work with UF faculty on projects in scientific fields related to BMS's Research and Development areas while simultaneously meeting and networking with BMS team members through Beyond120's MentorConnect digital mentorship platform. The year-long program will culminate in a virtual symposium in which the BMS Science Scholars will present their work to an audience of BMS scientists and receive questions and feedback. This program's format could be replicated for a wide variety of industries beyond pharmaceuticals, as it combines the learning benefits of traditional faculty-supervised research with unique career development opportunities and industry insights while also benefitting the partner company's recruitment and outreach efforts.

### **Conducting Undergraduate Humanities Research During a Pandemic**

*Ginny Peterson Tennant | Miami Dade College, Miami, FL*

With a pandemic in full-swing, two undergraduate students worked with the presenter to conduct small research studies as part of the Humanities Edge Undergraduate Research program. Using virtual tools, the presenter worked individually with each student to teach them how to conduct qualitative research. An architecture major designed and conducted a case study that explored possible gender bias and discrimination of female architects in the workplace. A second undergraduate student used her skills as a photographer in a phenomenological study that looked at participants' lived experiences of working from home during COVID-19. The latter research study is available for presentation as a short video encapsulating the student researcher's findings.

## SESSION II: Interactive Presentations

1:00 PM -2:00 PM

### **Room 2239 | Working Towards Supporting your Universities NSF REU's and Building a Network of Connected Student and Faculty Researchers at the University of Central Florida**

*Darya Farsinejad & Natalia Leal Toro | University of Central Florida, Orlando, FL*

The University of Central Florida hosts six National Science Foundation (NSF) funded Research Experience for Undergraduates (REU) sites. For the past two years, the Office of Undergraduate Research (OUR) has worked to establish centralized support for REU Principal Investigators (PI's) and programming for NSF REU participants. This past summer OUR facilitated its first year of embedded support for five out of the six UCF REU's. This presentation will overview this initiative, including the types of institutional support OUR received to facilitate these efforts, how OUR has navigated developing relationships with PI's who have run their own REU's for years, services offered to PI's and REU participants, campus partnerships created to better serve REU participants, and opportunities and challenges experienced as we grow these efforts. Through an interactive presentation, participants will explore barriers and opportunities at their own campuses to centralize REU's, and support student engagement in external REU's.

### **Room 2236 | Full Campus Laboratory: Best Practices for Project-Based-Learning and Undergraduate Research**

*Robert Henry & Larry Frolich | Miami Dade College, Miami, FL*

We, as committed and dedicated Miami Dade College faculty, would like to propose an innovative, transformational, aspirational vision for a Full-Campus Laboratory. The FCL, for short, will unite our changing curricular needs with an evolving 21st century facilities infrastructure. The college's buildings and landholdings are part of a core support system for administration, faculty, staff, and students; therefore, college infrastructure will become the experimental proving ground for a curriculum-wide emphasis on hands-on laboratory-style learning accompanying our increasingly virtual didactic classrooms. We believe this vision will synergistically guide us to outcomes that ensure MDC's prominence as a world-class institution serving and educating the next generation, while proving the resilience of a 21st century college's campus physical facilities. We know that the Full Campus Laboratory is a sound academic framework guiding while inspiring faculty and students revolutionizing best practices for project based learning and undergraduate research.

## SESSION II: Interactive Presentations (cont'd)

### Room 2233 | Expanding Early Engagement in Undergraduate Research

*Shaun Elie, Lauren Melanson & Alexis Miller | Florida Atlantic University, Boca Raton, FL*

Early engagement in undergraduate research has been shown to play a significant role in students' educational and career trajectories. At Florida Atlantic University, we have established a comprehensive plan that includes curricular, co-curricular, and marketing strategies to increase undergraduate research awareness and engagement of freshmen and sophomores within the university. Examples of high-impact early engagement strategies that will be discussed include targeted marketing through on campus partners (i.e., admissions), targeted classroom presentations (larger, lower-division courses), co-curricular support of faculty for mentoring freshman (i.e., targeted grant and faculty incentive funding), and supporting curricular initiatives, including offering cohort-based introduction to research courses for freshmen. In this interactive discussion, audience members are encouraged to share successes, challenges, and lessons learned that they have experienced at their respective institutions.

### Room 2137 | Recent Efforts in Improving the Mentor-Mentee Relationship at Florida State

*Latika Young, Alicia Batailles & David Advent | Florida State University, Tallahassee, FL*

As the Undergraduate Research Opportunity Program (UROP) has continued to grow by at least 10% each year, the sheer size of the program has revealed the essential importance of the mentor-mentee relationship. With more than 550 students participating in the program, we rely on the students' mentors as the most important contact for each student. Magnified by the pandemic, this mentor-mentee relationship has become increasingly meaningful, and these last few years have also highlighted the challenges when the match is not optimal. We have focused on several initiatives to improve this experience, including: creating mentor training for graduate student mentors, incorporating a mentoring philosophy into the Research Mentor proposal, and technological additions to help streamline communication with all participants. This session will introduce these initiatives as well as provide a chance to engage with elements of the research mentor training by developing our own mentoring philosophy.

## SESSION III: Interactive Presentations

2:00 PM - 3:00PM

### Room 2137 | Show Me the Money: Using Poster Printing as a Source of Funding

*Judith Ochrietor & Kaitlyn Minnicks | University of North Florida, Jacksonville, FL*

Funding student-serving initiatives can be difficult due to state-wide budget cuts and restrictions on how those state funds can be used. Because of this, the Office of Undergraduate Research at the University of North Florida relies on poster printing revenues to make ends meet and fund programming that would not be possible otherwise. Although COVID-19 restrictions reduced the number of posters printed in a two-year period, the return to in-person presentations has brought an increase in requests, and hence funds to the Office. In addition to an initial investment, having an efficient program in place for submission of files, collecting the appropriate fees, and printing the posters is essential for success. In this interactive presentation, we will share what we have learned about parlaying the initial purchase into a successful means to support undergraduate research initiatives.

### Room 2234 | Integrating the Cultural Experience in Study Abroad Research

*Scott Herber, Luz Matilde Rodriguez Moreno & Amanda Rose Newton | Eastern Florida State College, Melbourne Beach, FL*

Study abroad research has been an integral part of many college research programs throughout the years. Traditionally, research has been observed through a strictly scientific lens, despite being in a region rich in cultural diversity. The two are not mutually exclusive, and the interdisciplinary approach allows students to participate in a richer experience. The integration of a cultural component opens the door for interdisciplinary studies within the same cohort and future cohort of students; providing for research opportunities that cross the disciplines creating more comprehensive outcomes. This presentation will demonstrate mechanisms to incorporate cultural practices during study abroad research and how those practices will enhance the research experience.

## SESSION III: Interactive Presentations (cont'd)

### **Room 2239 | How Undergraduate Research Events can Adapt to Change?**

*Allen Varela | Florida International University, Miami, FL*

Traditionally, undergraduate research events at FIU were hosted on-campus. When the COVID-19 began two years ago, FIU transitioned to remote. From 2020 – 2022, FIU Honors College changed the annual Undergraduate Research Conference at FIU (URFIU) to a virtual format. The virtual format provided opportunities for off-campus students and faculty to participate though introduced challenges for the logistical side. In 2022, FIU Honors hosted URFIU back on-campus but with little participation from students outside the United States. FIU Honors College is planning with University of Arizona and University of New Mexico to host virtual events for students in Argentina this academic year, and URFIU 2023 will be in a hybrid format offering on-campus and virtual participation. I will discuss how undergraduate research events at FIU are adapting to changes since the COVID-19 pandemic.

### **Room 2233 | Give Them A Voice! Showcasing Course-Based Undergraduate Research and Creative Work**

*Marina Rodriguez, Ildiko Barsony, Maria Casado, Victor Gomez & Ariane Tulloch | Miami Dade College, Miami, FL*

Excellence Across Curriculum (EAC), a cross-disciplinary student symposium launched by Miami Dade College North Campus, provides a forum for students to present their undergraduate research projects conducted in class. EAC is an awardee of the President's Innovation Fund, a competitive grant with the strategic goal of supporting evidence-based ideas. Conceived before COVID-19 and implemented during the pandemic, EAC has fulfilled its promise as a high-impact practice by showcasing change-making, sustainability, or human rights themed student work. To plan and organize the symposia, an EAC Library Guide was created to serve as an ongoing platform disseminating academic research information, storing analytic rubrics with the adjudication process, and archiving student publications. This presentation will explain how faculty and staff from English, Arts & Philosophy, and the library recruited and mentored students successfully. Participants will engage in peer guided reflection to create similar collaborative efforts at their institutions.

### **Room 2236 | Enticing Students to Enroll in an Interdisciplinary, 1st Year Introduction to Social Research Course**

*Kimberly Coffman | Miami Dade College, Miami, FL*

This proposed interactive presentation, Enticing Students to Enroll in an Interdisciplinary, 1st Year Introduction to Social Research Course, would begin by sharing the course syllabus and course development process for Miami Dade College's new Introduction to Social Research Interdisciplinary Social Sciences' ISS 1301 course. Audience members will participate in an interactive discussion and exploration of strategies for engaging and enticing students to enroll in an elective, undergraduate, interdisciplinary social research survey course. Discussion will focus on building students' foundational capacity for critical thinking and scientific reasoning needed in the workforce, for preparation for upper-level coursework, and / or for becoming a civically engaged citizen. Discussion will also address recent discourse in media and scholarly writing regarding the importance of research methods coursework in community colleges and at the undergraduate level.

## SESSION IV: Mini Presentations | Room 1102

**3:15 PM – 4:30 PM**

### **Can Neurodiversity Help Close the Job Gap in Cyber Security?**

*George Antoniou | Lynn University, Boca Raton, FL*

With cyberattacks growing at an exponential rate and a worldwide cybersecurity workforce shortage, enabling job opportunities for neuro-minorities benefits organizations and individuals. According to the International Information System Security Certification Consortium, Cybersecurity Workforce Study estimates that around four million more cyber professionals are needed worldwide to meet job demand. With so much talent needed, making organizations more accessible to neuro-minorities may hold the key to cybersecurity talent gap. Based on Crest's, an international not-for-profit accreditation and certification body that represents and supports the technical information security market, 2020 report, Neurodiversity in the cybersecurity workplace, stated: "The Cybersecurity industry recognizes that people on the autistic spectrum can provide invaluable skills to the sector and are often the best performers in technical roles." The first step to achieving this vision is connecting the dots between early STEM education, cybersecurity career training, hiring methods, and emphasize neurodiversity as part of the organization's brand.

## SESSION IV: Mini Presentations (cont'd)

### **Designing and Implementing Introduction to Research Courses for All Majors**

*Mary Tripp & Tasnim Mellouli | University of Central Florida, Orlando, FL*

At UCF, the Office of Undergraduate Research developed a 1-credit, interdisciplinary Introduction to Research (INTRO) courses each fall and spring semester. This presentation discusses the design and implementation of our INTRO course, a semester-long immersive, classroom experience with an HIP designation. INTRO is designed for students who have not yet been involved in research or creative scholarship. In INTRO, students meet with research faculty and students active in research and contact potential faculty mentors. Additionally, they learn about resources on campus and develop advanced reading and writing skills through finding academic journal articles written by potential faculty mentors. To earn IE course designation, they explore how careers in research help solve real-world problems.

### **Helping Humanities Scholars: Mentoring Students in Philosophy and Art Research Projects**

*Kristin Borgwald | Miami Dade College, Miami, FL*

The past two years I participated in the Humanities Edge Undergraduate Research Project (HEURP). I mentored two students helping them to: write an abstract, work with campus librarians, conduct research, develop projects, and prepare presentations. Gabriela Ramos researched contemporary work concerning the philosophical foundation of the Black Lives Matter Movement and presented her work titled, "The Blue Loophole: Social Contract Theory and Law Enforcement in America," at the HEURP Symposium in 2020. She was also accepted to the National Conference on Undergraduate Research and presented her work in April of 2021. Andrew Ruby researched the relationship between personal struggle and creativity in the artistic process and presented his work, "Triumph Through Trials," a spoken word poem, at the HEURP Symposium in 2021. His project was also accepted to the Humanities Education and Research Association 2022 Conference. I'd like to share both experiences and strategies I developed in the process.

### **The Use of Collage as an Effective Tool in Helping Students Develop Meaningful Research Topics for Architecture History II (ARC 2702) Gordon Rule Course**

*Lyle D. Culver | Miami Dade College, Miami, FL*

The purpose of my study is to investigate how creative visual learning with collages can be an effective tool in helping students research and write essays. Once a topic is identified, I ask students to develop a 2 or 3-D abstract composition on an 24x36 canvas, cardboard, or even plywood that explores the topic from a purely visual perspective. Students are encouraged to develop abstract compositions that incorporate the use of pictures, paint, diagrams, and renderings. They may also include text as part of the collage. This creative exercise helps students explore, and further develop in-depth and even provocative inquiries about their original paper topics.

### **Healthcare Technology Business Research**

*Jose Garcia, Varun Ramberran & Eduardo Salcedo | Miami Dade College, Miami, FL*

Project HTBR was designed to provide undergraduate students with the skillset needed for data collection, analysis, and interpretation regarding health outcomes and their application in today's technological business environment. Students learn the process of obtaining data via reading biotech instruments measuring vital health markers (ex. respiratory rates, electrical signals, etc.) as well as survey instruments and secondary datasets. Upon collecting data, students are given an instructional course on data analysis composed of descriptive/inferential statistics to find predictors of high-risk health markers. Students are shown how to perform linear regression, and interpret their findings based on significance levels while feeding them into machine learning algorithms. At the culmination of Project HTBR, students analyze their findings and their implications on today's business healthcare environment and the potential benefits of medical technology while preparing a formal presentation to be exhibited at the College Symposium and obtaining qualifying certifications.

**Closing Reception & Networking | Building 1, Third Floor  
4:30 PM - 6:00 PM**

## NOTES

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To do successful  
research, you don't need  
to know everything, you  
just need to know one  
thing that isn't known.

– *Arthur L. Schawlow*

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## THANK YOU

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This event would not be possible without the support of Miami Dade College's administrators, faculty, and staff. Additional thanks to our outstanding presenters who by sharing their knowledge and best practices made this a successful event.

## FURA

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FURA is a nonprofit organization dedicated to promoting the understanding of research and creative activity across all disciplines. FURA promotes the creation of new undergraduate research opportunities and unites like-minded faculty and administrators across the state to support this high-impact educational practice.

## WANT TO HOST A FURA EVENT

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FURA is not able to host all these wonderful events without the support of host institutions. If you are interested in hosting FURC or the Statewide Symposium, the FURA Board is soliciting bids. For more information, please contact Latika Young, at [latika.young@fsu.edu](mailto:latika.young@fsu.edu)



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