



12th Annual
Florida Statewide
SYMPOSIUM

Best Practices in UNDERGRADUATE RESEARCH



UCF

2019

Oct 25-26

Orlando, Florida

www.researchsymposium.ucf.edu

Undergraduate Research: Learning from the Past, Moving towards Tomorrow

Speaker: Susan Singer

Vice President for Academic Affairs and Provost, Rollins College
Former Director for the Division of Undergraduate Education at
the National Science Foundation

Friday, October 25

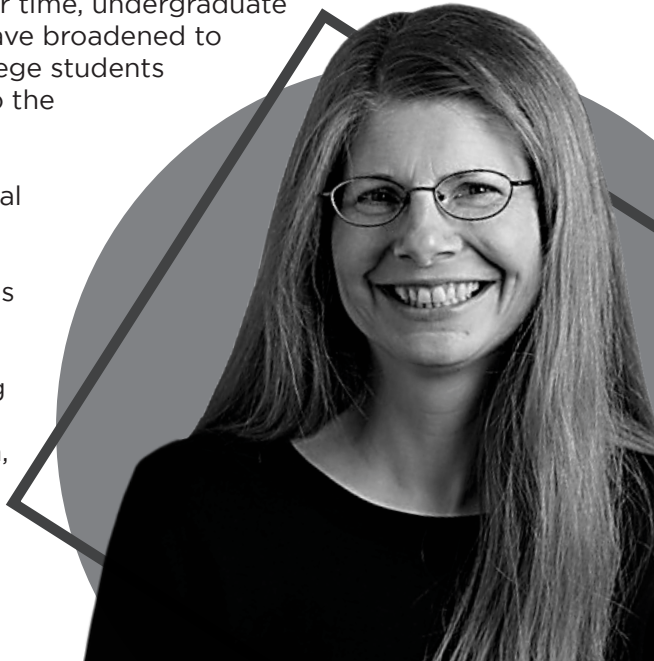
1:30-2:45pm

Cape Florida Ballroom, Student Union

OVERVIEW

Two hundred years ago, the Humboldtian Ideals for the German university set the trajectory for undergraduate research, spreading across the Atlantic. Sixty years ago, the National Science Foundation began supporting undergraduate research, a commitment that persists to today, with a brief hiatus in the 1980s. Over time, undergraduate research experiences have broadened to include community college students and have expanded into the classroom and teaching laboratory, scaling the benefits of the traditional apprenticeship model.

We will explore what has been learned about promising practices, inclusion, and spreading the benefits of undergraduate research, while identifying the next frontier of research to optimize these experiences.



AT-A-GLANCE

FRIDAY, OCTOBER 25TH

11am - 1pm	Registration
1 - 1:30pm	Event Welcome and Orientation
1:30 - 2:45pm	Keynote Address - Undergraduate Research: Learning from the Past, Moving Towards Tomorrow
2:55 - 3:45pm	Interactive Presentations
3:55 - 4:15pm	Mini Presentations
4:25 - 5:10pm	Interactive Presentations
5:15 - 7pm	Posters and Reception
7pm	Dinner on Your Own

SATURDAY, OCTOBER 26TH

8:15 - 9am	Coffee and Conversation
8:30 - 8:55am	The Florida Undergraduate Research Association: Updates and Opportunities
9 - 10am	Keynote Workshop - The Hows and Whys of Funding Undergraduate Research
10:10 - 11:30am	Mini Presentations
11:40 - 12:25pm	Interactive Workshops
12:25 - 1:05pm	Lunch
1:05 - 1:50pm	Interactive Workshops
2:00 - 2:45pm	Interactive Workshops
2:50 - 3:45pm	Plenary Panel - Approaches to Using Financial Aid Awards to Support and/or Sustain Undergraduate Research
3:45 - 4pm	Conference Wrap Up

11AM - 1PM | REGISTRATION

Cape Florida Ballroom

1 - 1:30PM | WELCOME AND ORIENTATION

Cape Florida Ballroom – AB, Kimberly Schneider, Assistant Dean, Division of Teaching and Learning; Director, Office of Undergraduate Research, George Walters-Marrah, McNair Scholar and undergraduate researcher

1:30 - 2:45PM | KEYNOTE PRESENTATION

Undergraduate Research: Learning from the Past, Moving Towards Tomorrow

Cape Florida Ballroom – AB, Susan Singer (Rollins College)

Introduction: Melody Bowdon, Interim Vice Provost for Teaching and Learning and Interim Dean, College of Undergraduate Studies

2:55 - 3:50PM | INTERACTIVE PRESENTATIONS

Evolution of the Undergraduate Research Journal

Cape Florida Ballroom – AB, Michelle Leonard and Anne Donnelly (University of Florida), Tracy Baker (Florida Atlantic University), David Advent (Florida State University)

Vignettes: Integrating Research into Curriculum

Cape Florida Ballroom – D

CUREing Exposure to Environmental Chemicals from Personal Care Products

Erika Doctor and Cassandra Korte (Lynn University)

Teaching the Principles of Research through the Creation of Digital Content

Melodie Eichbauer (Florida Gulf Coast University)

Critical Pedagogy and Social Justice In a Research-Embedded Course Series: A Pilot In a Teacher Education Program

Debra Giambo and Tunde Szecsi (Florida Gulf Coast University)

The Role of Research in the Curriculum of Social Science Majors

Janis Prince (Saint Leo University)

Integrating Clinical Research into the Health Sciences Curriculum

Suha Saleh (University of Central Florida)

3:55 - 4:15PM | MINI PRESENTATIONS

Faculty-Library Collaboration to Enhance UG Research and Information Literacy Skills

Cape Florida Ballroom – AB, Hulya Yazici and Regina Beard (Florida Gulf Coast University)

Seminole State College CCURI Experience: From Classroom to Collaboration

Cape Florida Ballroom – D, Maya Byfield (Seminole State College of Florida)

4:25 - 5:10PM | INTERACTIVE PRESENTATIONS

A Pilot Cross-Campus Collaboration with FSU's UROP and University Libraries

Cape Florida Ballroom – AB, Alicia Batailles and Denise Wetzel (Florida State University)

Leveraging Embedded Undergraduate Research to Bolster Research Culture: A Multi-Pronged Approach Case Study

Cape Florida Ballroom – D, Marshall Jones and Darby Proctor (Florida Institute of Technology)

5:15 - 7PM | POSTER SESSION AND RECEPTION

Burnett Honors College

7PM | DINNER ON YOUR OWN

See suggestions on Page 26-27.

Sign up by 4pm for dinner out with colleagues:

Padmini Coopamah Waldron (Director, UCF Office of Honors Research) and Richard Harrison (UCF Librarian)

8:15 - 9AM | COFFEE AND CONVERSATION

Burnett Honors College Lounge

8:30 - 8:55AM | MINI PRESENTATION

The Florida Undergraduate Research Association: Updates and Opportunities

BHC 126, Jennie Soberon (Florida Atlantic University), Eric Freundt (University of Tampa), Kimberly Schneider (University of Central Florida)

9 - 10AM | KEYNOTE WORKSHOP

The Hows and Whys of Funding Undergraduate Research

BHC 130, Susan Singer (Rollins College)

10:10 - 11:30AM | MINI PRESENTATIONS

BHC 126

Part I- Creating a STEM Research Community for First-Year Students: The LEARN Program

10:10 - 10:25am. Kimberly Schneider and Mary Tripp (University of Central Florida)

Part II- Partnering to Expand and Adapt STEM Research Communities at Three Institutions: The LEARN Consortium

10:25 - 10:40am. Donna Chamley-Wiik and Jordan Merritt (Florida Atlantic University)

Developing a Research and Innovation Course for Sophomore Students at a Chinese University: An International Collaborative Experience

10:40 - 10:55am. Tsung-chow Su (Florida Atlantic University), Yanbo Liu (Harbin Engineering University)

Research Abroad: Adopting a Legacy Program to Fit the Current Needs of Students

10:55 - 11:10am. Wesley Lewis (Embry-Riddle Aeronautical University)

BHC 128

Undergraduate Research Develops Transferable Skills More Successfully Than Other High Impact Practices

10:10 – 10:25am. Charles Gunnels (Florida Gulf Coast University)

Course Sequencing and Multi-Level Assessments in Undergraduate Research in the Social Sciences

10:25 – 10:40am. Dan DuBois (Saint Leo University)

A Model for a Multidisciplinary Faculty-Mentored Research-Internship Hybrid

10:40 – 10:55am. Eric Freundt (University of Tampa)

Research Abroad: Adopting a Legacy Program to Fit the Current Needs of Students

10:55 – 11:10am. David Montez (Florida State University)

11:40AM - 12:25PM | INTERACTIVE WORKSHOPS

Documenting and Growing Research in the Curriculum: Two Institutional Approaches to Creating Research Intensive Course Designations

BHC 126. Donna Chamely-Wiik (Florida Atlantic University), Kimberly Schneider and Aubrey Kuperman (University of Central Florida)

All Nuts and No Bolts: The Evolution of Undergraduate Research at a Small State School (South Florida State College)

BHC 128. Theresa James, James Hawker, Charlotte Pressler, Amy Bohan (South Florida State College)

12:25 - 1:05PM | LUNCH

1:05 - 1:50PM | INTERACTIVE WORKSHOPS

Essentials of Mentoring

BHC 126. Fran Duvall and Doreen Gruber (Stetson University)

Utilizing Peer Guidance in Undergraduate Research

BHC 128. Jennie Soberon and Tracy Baker (Florida Atlantic University), Tyler Campbell and Aubrey Kuperman (University of Central Florida)

2 - 2:45PM | INTERACTIVE WORKSHOPS

Visualizing & Understanding Experimental Design and Data Interpretation for Freshman STEM Students

BHC 126, Yu-Wai Peter Lin, Michael Bill, Stephanie Bingham, Flona Redway (Barry University)

Growing Undergraduate Research Opportunities By Embedding Peer HIP Coaches In Your Curriculum: Learn From Our 5 Years Of Missteps And Successes

BHC 128, Linda Walters, Kimberly Schneider, Mary Tripp (University of Central Florida)

2:50 - 3:45PM | PLENARY PANEL

Approaches to Using Financial Aid Awards to Support and/or Sustain Undergraduate Research

BHC 130, Jennie Soberon (Florida Atlantic University), Jaclyn Chastain (Florida Gulf Coast University), Aubrey Kuperman (University of Central Florida)

3:45 - 4PM | CONFERENCE WRAP UP

BHC 130

2:55 - 3:45PM | INTERACTIVE WORKSHOPS

Evolution of the Undergraduate Research Journal

Cape Florida Ballroom - AB, Michelle Leonard (University of Florida), Anne Donnelly (University of Florida), Tracy Baker (Florida Atlantic University), David Advent (Florida State University)

Undergraduate Research Programs: Nuts and Bolts

For undergraduates who are conducting research, it is important for them to share their research. One way to share their research is through publishing an article in their institution's undergraduate journal. In Florida, the Florida Virtual Campus offers its institutions to publish journals through the Open Journal System (OJS), that can also be open access. This panel, representing FAU, FSU, and UF, will discuss how they set-up their institution's undergraduate journal as each has different journal requirements and managed differently, and explore the best options for schools that want to create or revise their own journal. The goal is to offer guidance and support so all Florida institutions operate an undergraduate research journal.

Vignettes: Integrating Research into Curriculum

Cape Florida Ballroom - D, This session will include six short presentations from faculty who have embedded research into their curricula and include highlights of the lessons they have learned.

Embedding Research into Curricula

CUREing Exposure to Environmental Chemicals from Personal Care Products

Erika Doctor and Cassandra Korte (Lynn University)

Course-based undergraduate research experiences (CUREs) have been shown to lower barriers to participate in research while increasing learning. In this CURE, students assessed exposure to phthalates due to personal care product use. This set of modules begins with performing cookbook-style laboratory exercises focused on development of laboratory skills. Then, they propose methods of analysis for human urine samples based on a previously-designed intervention study. Afterwards students extract samples, detect analytes, and analyze data. They complete the CURE by presenting their results and proposing another iteration of the intervention study. Assessment and students' scientific attitudes will be presented.

Teaching the Principles of Research through the Creation of Digital Content

Melodie Eichbauer (Florida Gulf Coast University)

This talk outlines an example of using a professionalization project structured as an internship to teach the research process. The internship focused on producing digital content to be used in my survey course EUH 2021 Medieval European History. The production of this content entailed the production of three videos per module, each of which scaffolded the research process from processing the topic with a trailer video, to organizing how to approach the material with a synopsis video, to finally a researched argument with a lecture video that explored a topic in detail.

Critical Pedagogy and Social Justice In a Research-Embedded Course Series: A Pilot in a Teacher Education Program

Debra Giambo and Tunde Szecsi (Florida Gulf Coast University)

The presentation will describe the development and implementation of a research-embedded course series focusing on the education of English learners. In a teacher education program, three mandatory courses about the pedagogy for learners of English as a new language have been revamped to incorporate undergraduate research to provide scaffolded opportunities for students to engage in inquiry about social justice and critical pedagogy in their research studies. These projects are related to immigrant children and communities in Southwest Florida. The presentation will share specific strategies and procedures used to support student research skill development.

The Role of Research in the Curriculum of Social Science Majors

Janis Prince (Saint Leo University)

The Social Sciences department at Saint Leo University is made up of History, Political Science, Psychology, and Sociology programs. Each of these majors has revamped its curriculum to better embed research, giving students exposure to research opportunities across several methodical traditions, even within one program; these changes also provide students with marketable skills that are career enhancing. This presentation will describe the role of research in the curriculum of each of these four social science majors.

Integrating Clinical Research into the Health Sciences Curriculum

Suha Saleh (University of Central Florida)

The undergraduate Health Sciences degree at UCF is designed for students who want to learn about human health and at the same time who aspire to have a career as a healthcare provider. The curriculum is uniquely designed to include core courses that integrate applied concepts and clinical applications of the core subjects in Health Sciences. Recently, the Health Sciences curriculum incorporated a new required course “Health Sciences Seminar” for seniors. One of the main goals in this course is to strengthen student’s understanding of clinical research and clinical trials. Students present their work as groups and intragroup and intergroup peer assessments is utilized in the overall evaluation of the experience.

3:55 - 4:15PM | MINI PRESENTATIONS

Faculty-Library Collaboration to Enhance UG Research and Information Literacy Skills

Cape Florida Ballroom - AB, Hulya Yazici and Regina Beard (Florida Gulf Coast University)

Embedding Research into Curricula

This presentation describes faculty-Library collaboration efforts to enhance research and information literacy skills of our undergraduate students. An example of collaboration between business Faculty and Library Coordinator to facilitate research problem and data finding is presented with Canvas demonstration. The structured methodology is presented with implications on the experiential learning efforts. Additional examples from Library to improve information literacy and writing skills to enhance UG research are demonstrated.

Seminole State College CCURI Experience: From Classroom to Collaboration

Cape Florida Ballroom - AB, Maya Byfield (Seminole State College of Florida)

Leveraging partnerships is critical to State Colleges, which often do not have the time and resources to invest in research activities; thus, driving the need to share knowledge and resources with well-established, research-focused institutions. Through SSC’s collaboration with research-focused institutions, cultivation of a colloquium series, and the establishment of a STEM research course, we have found a way of targeting interested students to streamline them into competitive learning and career opportunities for the future. This helped to build education-industry-research connections, providing our students with an understanding of career opportunities available for life scientists, in turn facilitating increased student motivation.

3:55 - 4:15PM | INTERACTIVE PRESENTATIONS

A Pilot Cross-Campus Collaboration with FSU's UROP and University Libraries

Cape Florida Ballroom - Alicia Batailles and Denise Wetzels (Florida State University)

Building an Inclusive Undergraduate Research Culture

Developing a successful campus partnership is crucial to the holistic development of undergraduate students. Through a pilot collaboration between FSU's University Libraries and the Undergraduate Research Opportunity Program (administered by the Center for Undergraduate Research and Academic Engagement), first and second-year students and new transfers in the UROP program learned valuable research skills and tools to enhance their learning as part of their UROP research assistantships and future academic careers. Currently in its second year, this program requires students to work closely with subject librarians, analyze topics, and reflect on their use of library resources during their research year.

Leveraging Embedded Undergraduate Research to Bolster Research Culture: A Multi-Pronged Approach Case Study

Cape Florida Ballroom D - Marshall Jones and Darby Proctor (Florida Institute of Technology)

Introducing research into UG curriculum is critical toward the development of empirically informed future researchers and practitioners. Developing mechanisms to embed research into curriculum and culture can be challenging. To address these challenges, our UG psychology program has implemented initiatives to increase research participation. We will discuss several which include embedded class research, laboratory experiments, poster opportunities, and faculty research team participation. We also facilitate UG through research centers, partnering with public and private organizations, and novel approaches such as Roach Lab (roachlab.org). We will specifically highlight outcomes attributed to engaging students in research.

5:15 - 7PM | POSTER PRESENTATIONS

Burnett Honors College Lobby

Incorporating High Impact Practices into Undergraduate Research Methods Courses

Frances Abderhalden (University of Central Florida)

Research methods courses are not traditionally an exciting course for students to enroll. Most students in these courses are there by requirement only. Giving undergraduate students the opportunity to apply research methods they learn in a classroom to an academic research poster allows students the ability to gain critical research experience. Through participation in this high impact course project, students are able to explore theoretical frameworks, survey construction, application of research methods, and create research designs, as well as a wide range of learning experiences associated with presenting research posters. This presentation will explore how non-traditional approaches and experiences encourage new learning techniques.

Inaugural Florida Undergraduate Research Posters at the Capitol

Marshall Jones and Darby Proctor (Florida Institute of Technology)

Campuses around the country regularly host Undergraduate Research Posters at the Capitol events, which allow undergraduates to present research posters while also interacting with their state representatives. In this cross-collaborative environment, important conversations concerning public policy and the applicability of research to everyday life flourish. On February 10, 2020, the Florida Undergraduate Research Association (FURA) will host the inaugural Florida Undergraduate Research Posters at the Capitol event. This poster will highlight the plans for the event so far and how to get involved, outline desired outcomes, and provide a chance to gather input from interested Florida institutions.

Mentoring Research Projects in Data-Enabled Industrial Mathematics

Mihhail Berezovski (Embry-Riddle Aeronautical University)

This poster will discuss the challenges of mentoring undergraduate students in multiple data-enabled research projects, based on original real-world problems provided directly by businesses and industry. We highlight several different undergraduate research opportunities and student training in computational mathematics at ERAU, including the PIC Math program (Preparing Students for Industrial Careers in Mathematics) projects and ERAU Research Projects in Industrial Mathematics course. We will discuss getting students involved in these projects and share ideas for successfully designing and mentoring such projects. The outcomes of the projects and lessons learned from these research experiences will be presented.

Connecting to Students Where They Are: A Social Media Strategy

Tyler Campbell and Daniela Velez (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

Disseminating information about programs and opportunities, or just simply getting students to know your opportunities exist, can sometimes be difficult. In this presentation, we will discuss how the Office of Undergraduate Research at the University of Central Florida has developed a social media strategy that is both highly successful in connecting with students and efficient. We will break down how to manage everything from developing content with the assistance of a student employee to managing posting schedules, all in an effort to show the impact of connecting with students where they are.

Expanding Options and Access to the Honors Thesis

Padmini Coopamah Waldron and Amanda Ammirati (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

Since 1989, students at the University of Central Florida have had the opportunity to earn Honors through the Honors in the Major program. In an effort to accommodate the range of students' research interests and to make the Honors thesis more appealing and accessible to qualified students, the Office of Honors Research has in the last year introduced two new options: the Interdisciplinary thesis and the Engineering thesis. The former allows students to conduct research and write theses outside their declared academic majors; the latter option allows students in Engineering to substitute their Senior Design course for an Honors Thesis course, thus reducing the number of credits associated with the program.

CUREing Exposure to Environmental Chemicals from Personal Care Products

Erika Doctor and Cassandra Korte (Lynn University)

Embedding Research into Curricula

Course-based undergraduate research experiences (CUREs) have been shown to lower barriers to participate in research while increasing learning. In this CURE, students assessed exposure to phthalates due to personal care product use. This set of modules begins with performing cookbook-style laboratory exercises focused on development of laboratory skills. Then, they propose methods of analysis for human urine samples based on a previously-designed intervention study. Afterwards students extract samples, detect analytes, and analyze data. They complete the CURE by presenting their results and proposing another iteration of the intervention study. Assessment and students' scientific attitudes will be presented.

Teaching the Principles of Research through the Creation of Digital Content

Melodie Eichbauer (Florida Gulf Coast University)

Embedding Research into Curricula

This poster outlines an example of using a professionalization project structured as an internship to teach the research process. The internship focused on producing digital content to be used in my survey course EUH 2021 Medieval European History. The production of this content entailed the production of three videos per module, each of which scaffolded the research process from processing the topic with a trailer video, to organizing how to approach the material with a synopsis video, to finally a researched argument with a lecture video that explored a topic in detail.

First Research Intensive (RI) Designation Course in the Bachelor of Arts in Spanish at UCF

Martha Garcia (University of Central Florida)

Embedding Research into Curricula

Research and creative components have been integrated in my teaching, therefore, defining research in a tangible manner has abetted in understanding panoramically the intrinsic value of these constituents in the preparation of diverse demographic populations. I share here the journey of implementing a RI course purposely for students majoring or minoring in Spanish, for students seeking interdisciplinary learning opportunities, for honors students, or for students of the Medieval & Renaissance Studies Minor. The research and creative components outlined and practiced in the first RI designation course in the Spanish BA discerns the need and relevance of this kind of initiative.

Interactives to Increase User Buy-in at Undergraduate Research Events

Morgan Hamilton (Florida State University)

Undergraduate Research Programs: Nuts and Bolts

Interactives have proven effective in creating user buy-in at FSU's Center for Undergraduate Research and Academic Engagement events and in our digital presence. This past year, we incorporated digital and physical interactive elements to our Undergraduate Research Symposium, including a social media wall, photo booth, and self/event reflective sticky-note walls. These elements, staffed by student volunteers, encouraged visitors to participate in the event, rather than be passive observers. This model reflects the process of research, and, with further development and experimentation, could be integral to hosting impactful events including FURC 2021 at FSU.

Mentoring Undergraduates: Professors Strategically Guiding the Next Generation of Professionals

Alla Kourova (University of Central Florida)

Mentoring

This presentation is one description of how a mentoring relationship develops over time and how it benefits students, faculty and the university. Mentoring is not defined as how faculty impact students, but as an interdependent relationship, each person influencing, and being influenced by the other. The presentation concludes by examining some of the systemic, institutional challenges that keep mentoring from happening and describes some future research that needs to be undertaken.

Implementing Course Based Undergraduate Research Experiences (CUREs) Across an Environmental Studies Curriculum

Alanna Lecher and Cassandra Korte (Lynn University)

Embedding Research into Curricula

CUREs are an effective method of teaching students not only content, but also critical thinking, scientific practice, and other skills beneficial to their education and success. CUREs are especially valuable to underperforming students as they are an effective means of bridging the achievement gap. Due to the value and effectiveness of CUREs in student development, Lynn University has implemented a means by which students are exposed to CUREs and skills necessary to complete a CURE throughout the Environmental Studies major curriculum. This presentation will give a description of the curriculum and how CUREs and CURE-required skills are taught throughout the curriculum culminating in a fully independent capstone research project.

Best Practices of The Pegasus Review: University of Central Florida Undergraduate Research Journal in Supporting Student Writing

Melodie Spiegel, Enrique Guerra-Pujol Garcia, Aubrey Kuperman (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

Established in 2005, The Pegasus Review: University of Central Florida Undergraduate Research Journal (UCF URJ) publishes outstanding research submitted by undergraduate students involved in faculty-mentored research projects. This project looks at the UCF URJ and explores the functions of this student-run, undergraduate-only publication. This poster will review the strategies used by the journal to support student writing and overcome the challenges of being an interdisciplinary journal. We also explore the outcomes of our unique rolling publication strategy.

Building a Life Science Transfer Community: The Transfer-student Research and Integration Program (TRIP)

Ken Teter, Ian Biazzo, Kimberly Schneider, Ken Fedorka (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

The Transfer-student Research and Integration Program (TRIP) prepares life science students for placement in graduate school or the STEM workforce by supporting their professional development and integration into the UCF community. TRIP students also receive a team-based research experience and an opportunity to present at regional conferences. An \$8,000 scholarship distributed over the course of the 2-year program TRIP reduces financial barriers and encourages students to spend more time on campus and in a research environment. This poster provides an overview of the challenges facing transfer students, the solutions offered by TRIP, and early outcomes from the first cohort of our National Science Foundation-sponsored program.

8:30 - 10AM | SPECIAL SESSIONS

The Florida Undergraduate Research Association: Updates and Opportunities
BHC 126 - Jennie Soberon (Florida Atlantic University), Eric Freundt (University of Tampa), Kimberly Schneider (University of Central Florida)

The Florida Undergraduate Research Association (FURA) recently became a non-profit organization in the State of Florida. The mission of FURA is to expand undergraduate research opportunities across the state and across disciplines, with a current focus on dissemination. During this session, we will share how FURA was developed, the current structure of the association, the events and presentation opportunities that the association oversees (including the newest – Posters on the Capitol, FL, and our 10 year running FURC), information and data on past events, and future goals and strategies. Opportunities for involvement in this new association will also be discussed.

The How and Whys of Funding Undergraduate Research
BHC 130 - Susan Singer (Rollins College)

This practical workshop will help you strategize ways to support a vibrant culture of undergraduate research on your campus. Do you want to develop a cohort model for your students with additional programming? Perhaps infusing your curriculum with course-based research makes sense for your institution. Where on the continuum from support for stipends for student research collaborators to a desire to grow the knowledge base about the efficacy of research experiences does your faculty fall? What might you do with faculty development? You'll have the opportunity to develop your vision and learn about funding approaches to move towards implementation.

10:10 - 11:30AM | MINI PRESENTATIONS

Part I - Creating a STEM Research Community for First-Year Students: The LEARN Program

BHC 126 - Kimberly Schneider and Mary Tripp (University of Central Florida)
Undergraduate Research Programs: Nuts and Bolts

The LEARN (Learning Environment and Academic Research Network) Consortium is a three institution, NSF-sponsored collaboration to study and create research learning communities, to impact STEM retention. The session will review University of Central Florida first-year student model, which now has been expanded and adapted the model to include AA transfer students entering four-year institutions (see following session). This session will review the development of this program at the UCF over 9 years and will share how we developed partnerships. The three central components of this model include research engagement, tiered mentoring, and community building. Evaluation and assessment data to date will be shared for the UCF program.

Part II- Partnering to Expand and Adapt STEM Research Communities at Three Institutions: The LEARN Consortium

BHC 126 - Donna Chamely-Wiik and Jordan Merritt (Florida Atlantic University)
Assessment

The LEARN (Learning Environment and Academic Research Network) Consortium is a three institution, NSF-sponsored collaboration to study and create research learning communities, to impact STEM retention. This session will discuss the replicability of a first year STEM research community at two other institutions within the consortium. We will also outline how the core components (research engagement, tiered mentoring, and community building) have been adapted to meet the needs of an AA/AS transfer student population, and to accommodate different types of institutions. Evaluation and assessment data will be presented for Florida Atlantic University and Western Carolina University.

Developing a Research and Innovation Course for Sophomore Students at a Chinese University: An International Collaborative Experience

BHC 126 - Tsung-chow Su (Florida Atlantic University), Yanbo Liu (Harbin Engineering University)
Building an Inclusive Undergraduate Research Culture

During the Spring semester of 2019, an undergraduate research and innovation ability development course was initiated at the college of Naval Architecture and Ocean Engineering, Harbin Engineering University, Harbin, China. Instructional methods used include project-based, student-centered instruction, collaborative and active learning, and to spark a desire life-long learning. Thirty-three students participated in the course. In this presentation, we shall discuss the methods and experience, including the influence of culture on students' success as well as the difficulties they experienced.

Research Abroad: Adopting a Legacy Program to Fit the Current Needs of Students

BHC 126 - Wesley Lewis (Embry-Riddle Aeronautical University)
Undergraduate Research Programs: Nuts and Bolts

The Office of Undergraduate Research at Embry-Riddle Aeronautical University for the past seven years has offered a short-term research abroad program to allow students to have an international experience while being introduced to research. This past year the program was not feasible due to low student interest. The program was revamped to a research grant to encourage students who are participating in an ERAU faculty-led study abroad program to add a research component to their experience. Come find out how one program was revamped to meet the needs of the current students while still achieving the desired programmatic outcomes.

Undergraduate Research Develops Transferable Skills More Successfully Than Other High Impact Practices

BHC 128 - Charles Gunnels (Florida Gulf Coast University)

Assessment

Undergraduate research enhances student learning and professional development, including self-reported learning gains and solidified career goals. However, it is unclear how undergraduate research affects direct measures of student learning relative to other High Impact Practices (HIPs). FGCU assesses critical thinking, information literacy, & written communication skills among graduating seniors annually, allowing us to compare HIPs directly. Seniors that complete research-focused capstones perform significantly better than students completing service-learning or internship experiences. Research appears to strengthen students' use of evidence, which then improves the overall development of these transferable skills.

Course Sequencing and Multi-Level Assessments in Undergraduate Research in the Social Sciences

BHC 128 - Daniel DuBois (Saint Leo University)

Assessment

This presentation will highlight some of the key changes that the Saint Leo University Department of Social Sciences has recently incorporated to enhance the role of undergraduate research throughout its curriculum. The department as a whole has begun implementing a wide array of assessments over the last several years, and in the History and Political Science majors those assessments have also been augmented by sequencing multiple courses together in a way that allows students to work on a single undergraduate research project over several semesters. The outcomes of these new strategies have started to bear fruit, and this presentation will highlight both these new processes and the encouraging outcomes.

A Model for A Multidisciplinary Faculty-Mentored Research-Internship Hybrid

BHC 128 - Eric Freundt (The University of Tampa)

Undergraduate Research Programs: Nuts and Bolts

The Applied Learning Experience (ALEX) program at The University of Tampa pairs multidisciplinary teams of UT students with local companies to solve real-world problems. Tampa Bay organizations provide problems or creative opportunities that may benefit from a multidisciplinary, inquiry-based approach. Teams of three to four students from different academic majors then collaborate to produce a deliverable for the organization within a 14-week timeframe. ALEX teams also benefit from supervision by a faculty committee composed of members with subject-area expertise. This session will the present logistics, the challenges, lessons learned, and initial outcomes of the program.

Developing Formative Innovation-Focused Experiences

BHC 128 - David Montez (Florida State University)

Building an Inclusive Undergraduate Research Culture

FSU's Center for Undergraduate Research and Academic Engagement (CRE) is charged with engaging undergraduates in research and other academic High Impact Practices, including the development of innovation-focused formative experiences. The CRE does this through a variety of means while keeping UR as a core element of programming. These opportunities have included summer entrepreneurship fellowships (Tech Fellows), a 0-credit course for FTIC students (Future Innovators), a co-curricular social innovation program (Design for America at FSU), and student organization focused events. The audience will develop ideas for how they might be able to adapt these activities to their campus.

11:40AM - 12:25PM | INTERACTIVE PRESENTATIONS

Documenting and Growing Research in the Curriculum: Two Institutional Approaches to Creating Research Intensive Course Designations

BHC 126 - Donna Chamely-Wiik (Florida Atlantic University), Kim Schneider and Aubrey Kuperman (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

Academic research occurring within the classroom environment is hard to quantify and track. To document, support, and grow these courses, and thus opportunities for students, Florida Atlantic University and the University of Central Florida have processes to designate course as Research Intensive (RI). However, the process varies between our two institutions to meet our unique campus cultures. Both institutions will review the history of their RI option, requirements for and criteria of RI courses, and the formal designations and assessment process. Successes to date and lessons learned will be shared.

All Nuts and No Bolts: The Evolution of Undergraduate Research at a Small State School (South Florida State College)

BHC 128 - Theresa James, James Hawker, Charlotte Pressler, Amy Bohan (South Florida State College)

Assessment

In fall of 2017, students first started doing research with their biology instructor, and just a few terms later, two students have earned Portz Interdisciplinary Fellowships. In some ways, the program is going well with students participating in high numbers, but organizers still have questions about the "nuts and bolts" of establishing the program within the institution. Enthusiasm is high! However, key metrics are not being tracked and the workload needs to be distributed more evenly. The organizers will be talking with the audience about different ways to integrate UGR into the institution.

1:05 - 1:50PM | INTERACTIVE PRESENTATIONS

Essentials of Mentoring

BHC 126 - Fran Duvall and Doreen Gruber (Stetson University)

Mentoring

Are you a confident mentor? What is the difference between mentoring and advising? Have you mentored someone by accident? Is there an invisible line you should not cross when mentoring? What qualities are people looking for in a mentor? The answers to these questions and more are the focus of this interactive session! You will learn best practices for mentoring based on current research and walk away with a fresh perspective about mentoring. Please join us for an informative and fun session that will lead to happy and meaningful mentoring!

Utilizing Peer Guidance in Undergraduate Research

BHC 128 - Jennie Soberon and Tracy Baker (Florida Atlantic University), Tyler Campbell and Aubrey Kuperman (University of Central Florida)

Undergraduate Research Programs: Nuts and Bolts

Do you ever feel like you've told students something a thousand times to no effect, and yet when their peer mentions the "cool new research program," the applications flood in? The offices of Undergraduate Research at the University of Central Florida and Florida Atlantic University engage student leaders in several capacities to work directly with both current and prospective undergraduate researchers. These students reach hundreds of their peers annually, amplifying the offices' messages across campus. This presentation will discuss how you can use your current student researchers or select new student leaders and train them to become workshop/classroom presenters, peer mentors, teaching assistants, and journal editors.

2 - 2:45PM | INTERACTIVE PRESENTATIONS

Visualizing & Understanding Experimental Design and Data Interpretation for Freshman STEM Students

BHC 126 - Yu-Wai Peter Lin, Michael Bill, Stephanie Bingham, Flona Redway (Barry University)

Assessment

Even though freshmen may have the desire to conduct research, there is oftentimes considerable anxiety surrounding experimental design and data interpretation. This presents a barrier to students becoming fully engaged in the learning process. In our STEM Academic Skills Boot Camp, we use game-play exercises to improve research design, data analysis and critical-thinking skills. Students use research data to construct a visual representation of the experimental design, methods and results. In so doing, they can then conceptualize, visualize, understand and interpret relevant data, and use these examples as tools to improve critical thinking and problem-solving abilities.

Growing Undergraduate Research Opportunities By Embedding Peer HIP Coaches In Your Curriculum: Learn From Our 5 Years Of Missteps And Successes

BHC 128 - Linda Walters, Kimberley Schneider, Mary Tripp (University of Central Florida)

Embedding Research into Curricula

Growing the number of high impact educational practices (HIP) at any institution, especially large institutions with high enrollment classes, remains a challenge. We have developed a low-cost, high yield model that embeds faculty-selected, peer HIP coaches as a resource for students enrolled in undergraduate courses. HIP coaches receive a small scholarship and devote around 30 hours of assistance implementing high impact practices in their classrooms. Their role is determined by the faculty mentor to best match each unique course agenda. In our workshop, we will discuss our timeline, assessment, and how we train the faculty and coaches to maximize program success.

2:50 - 3:45PM | PLENARY PRESENTATION

Approaches to Using Financial Aid Awards to Support and/or Sustain Undergraduate Research

BHC 130 - Jennie Soberon (Florida Atlantic University), Jaclyn Chastain (Florida Gulf Coast University), Aubrey Kuperman (University of Central Florida)

Building an Inclusive Undergraduate Research Culture

This interactive session will explore two models across different institutions for using financial aid funding and Federal Work Study to support undergraduate research. The presenters will describe their programs, answer questions, and offer suggestions on how programs could be implemented on campuses of all types. Attendees will have the opportunity to hear how these programs were started, including the obstacles and successes faced at both institutions.

ACKNOWLEDGEMENTS

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Student Undergraduate Research Council

Student Union Event Services

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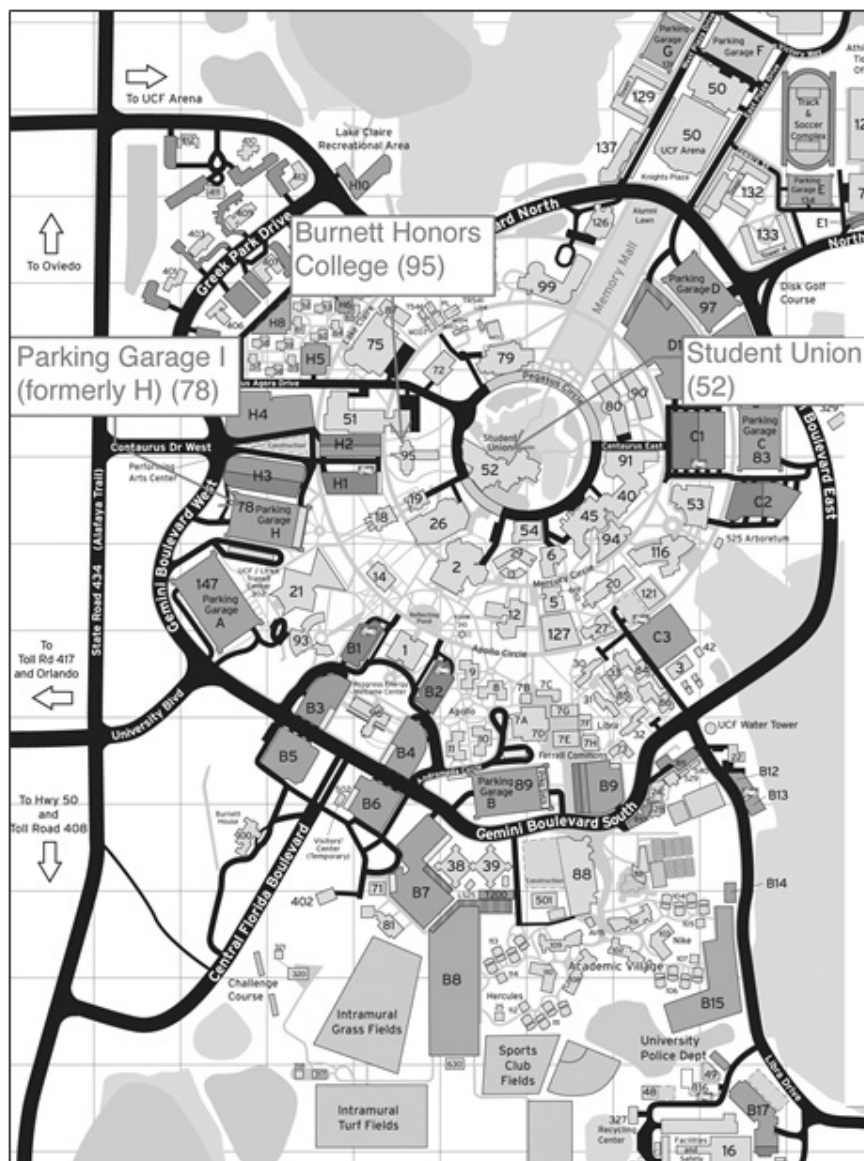
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MAPS & LOCATION

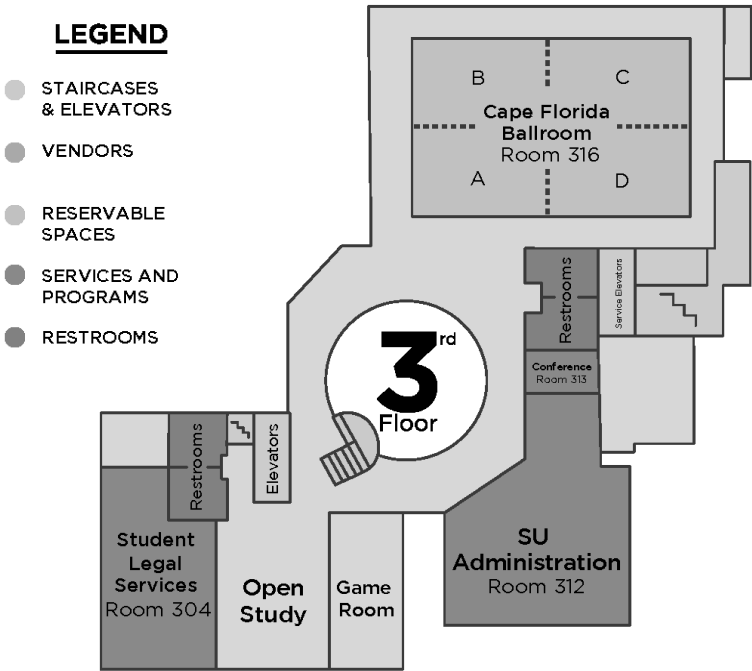
UNIVERSITY OF CENTRAL FLORIDA MAP

Student Union (52), Burnett Honors College (95), and Parking Garage I (formerly H) (78)

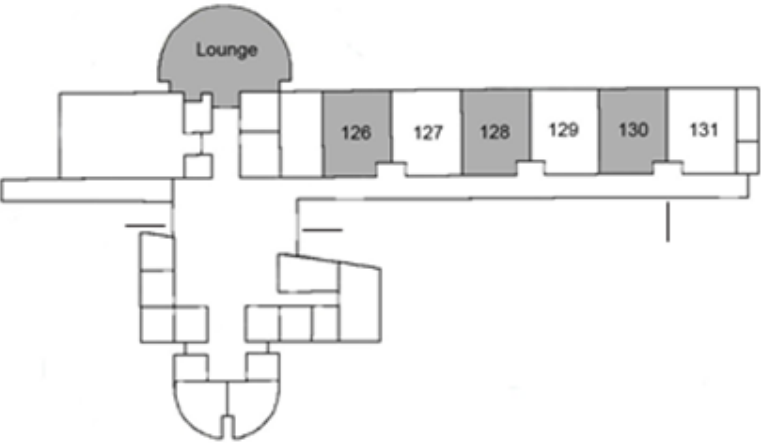


MAPS & LOCATION

STUDENT UNION



BURNETT HONORS COLLEGE



VICINITY MAP AND DINNER SUGGESTIONS



UCF Student Union & Campus (#1 on map)

Café Bustelo (Cuban)
 Chick-Fil-A (American)
 Chili's (American Grill)
 Huey Magoo's (Chicken)
 Knightstop (Convenience Store)
 Mrs. Field's Bakery (Greek
 Cuisine and Desserts)

Qdoba (Mexican Grill)
 Smoothie King (Smoothies)
 Panda Express (Chinese Kitchen)
 Steak 'n Shake (American)
 Which Wich (Sandwiches)
 Domino's Pizza (Italian)
 Foxtail Café

UCF Restaurants (#2 on map)

Gemini Blvd. + N. Orion Blvd.
 Barnes & Noble Café
 Burger U (Sports Bar and Grill)
 Domino's Pizza (Italian)
 Dunkin' Donuts (Pastries)
 Jimmy John's (Sandwiches)

Knightro's (American)
 The Pop Parlour (Coffee)
 Subway (Sandwiches)
 Gringos Locos (Mexican)

University Blvd Restaurants (#3 on map)

Applebee's (American)	Jersey Mike's Subs (Sandwiches)
Azteca D'Oro (Mexican)	Kyoto Sushi and Grill (Japanese)
Bar Louie (American)	Lazy Moon (American)
Bento Café (Japanese)	Metro Diner (American)
Blaze (Pizzeria)	4 Rivers Smokehouse (Barbecue)
Buffalo Wild Wings (Sports Bar)	Ruby Tuesday (American)
BurgerFi (American)	Taco Bus (Mexican)
Chipotle (Mexican)	Panera (American)
Del Taco (Fast food)	PokéStop (Asian fusion)
Dunkin' Donuts (Pastries)	Procolino's Ristorante
Firehouse Subs (Sandwiches)	& Pizzeria (Italian)
First Watch (American Brunch)	Omelet Bar (Brasserie)
Freddy's (American)	Steak 'n Shake (American)
Habanero's (Mexican)	Spoletto (Italian)
Hummus House Pitas &	Toasted (American)
Salads (Mediterranean)	Zaxby's (American)
Island Wing Company (American)	

University Commons (#4 on map)

Alafaya Tr. + Gemini Blvd. N

Arepa World of Food and	Spice Indian Grill (Indian)
Drink (Latin American)	Starbucks (Coffee and Tea)
Luya (Chinese)	Subway (Sandwich)
Moe's Southwest Grill (Mexican)	Sus Hi Eatstation (Japanese)
McAlister's Deli (American)	Tenders (Chicken)
Sno Tea Caffè (Tea)	Valkyrie Doughnuts (Pastries)

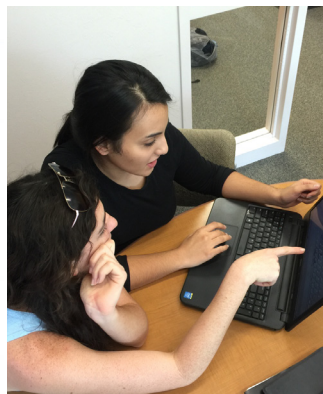
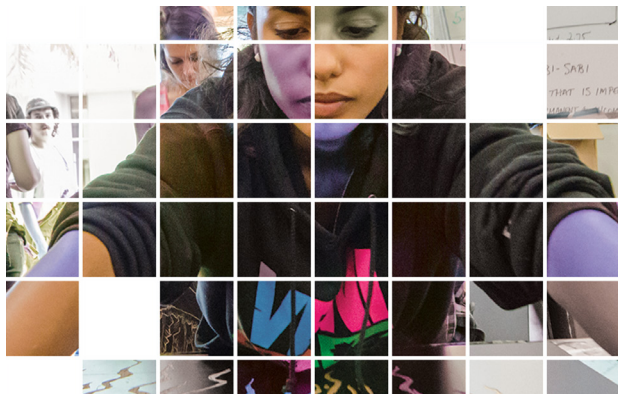
University Palms Shopping Center (#5 on map)

Alafaya Tr. + McCulloch Rd.

Chewy (Boba)	KeKe's (American Brunch)
Dragon Court (Chinese)	3 Natives UCF (Juice)
Giovanni's (Italian)	Wok N Kebab (Asian)
Huey Magoo's (Chicken)	

NOTES

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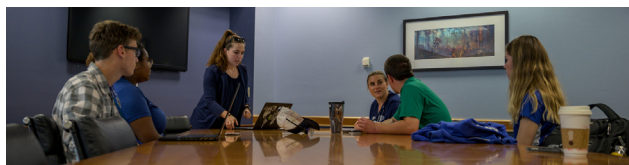


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