UF | Board of Trustees
UNIVERSITY of FLORIDA

BOARD MEETING
AGENDA
Thursday, September 7, 2023
11:00 a.m.
Virtual Meeting, (646) 558-8656, ID# 971 9639 1164
University of Florida, Gainesville FL

1.0 Call to Order and Welcome ..... Morteza "Mori" Hosseini, Chair

2.0 Verification of Quorum ..... Mark Kaplan, University Secretary

3.0 Public Comment ..... Mark Kaplan, University Secretary

4.0 Action Items ..... Mori Hosseini, Chair
AFSSPRSC1 Tenure Upon Hire ..... Rahul Patel, Chair AFSSPRSC Committee
AFSSPRSC2 New Degrees ..... Scott Angle, Interim Provost
AFSSPRSC3 Specialized Admissions Program Approval ..... Scott Angle
AFSSPRSC4 Annual Textbook and Instructional Materials Affordability Report Scott Angle
AFSSPRSC5 Self-supporting and Market Tuition Rate College-Credit Programs Annual Report 2021-22 & 2022-23 ..... Scott Angle
AFSSPRSC6 University Press of Florida Annual Report ..... Scott Angle

5.0 Discussion Item ..... Mori Hosseini, Chair
2023-2024 Education & General Carryforward Spending Plan, Fixed Capital Outlay Budget, and Related Certifications ..... Curtis Reynolds, Vice President for Business Affairs and Taylor Jantz, Office of the Chief Financial Officer

6.0 New Business ..... Mori Hosseini, Chair

7.0 Adjourn ..... Mori Hosseini, Chair

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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC1
September 7, 2023

SUBJECT: Tenure Upon Hire

BACKGROUND INFORMATION

The Chairs and Deans have recommended to the Provost and Senior Vice President for Academic Affairs that 13 faculty members be granted tenure commencing with their appointment. These individuals meet the criteria set forth in the University's tenure and permanent status policy and have been recommended by the Provost and President to receive tenure. Attached is a Summary of the Tenure Upon Hire cases.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the Tenure Upon Hire cases listed on the attached Summary for recommendation to the Board of Trustees for its approval on the Consent Agenda. While any administrative appointment is noted, tenure is granted only for the faculty appointments.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is not required.

Supporting Documentation Included: Tenure Upon Hire Summary

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023

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Morteza "Mori" Hosseini, Chair Ben Sasse, President and Corporate Secretary

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Tenure Upon Hire Summary
September 7, 2023

Dr. Sara A. Smith – College of Education
Associate Professor, School of Teaching and Learning
Dr. Sara Smith earned her B.A. in Anthropology and Spanish from the University of Illinois-Urbana-Champaign in 2007, her M.S. with distinction in Applied Linguistics and Second Language Acquisition from the University of Oxford in 2009 and her Ph.D. in Education, Applied Linguistics and Second Language Acquisition from the University of Oxford in 2013. Her prior institution is the University of South Florida. Dr. Smith has 31 journal articles, 7 book chapters, 1 patent and 5 works currently under review. Her stellar research has garnered support from the U.S. Air Force, NSF and the Institute of Education Sciences. She has generated external funding of approximately $7M while serving in the role of principal investigator or co-PI.

Dr. Matthew K. Burns – College of Education
Professor, School of Special Education, School Psychology and Early Childhood Studies
Dr. Matthew Burns earned his B.A. in Psychology from Michigan State University in 1991, his M.A. in Educational Psychology in 1992, his Educational Specialist in School Psychology in 1997 and his Ph.D. in Leadership, School of Education in 1999 from Andrews University. His prior institution is the University of Missouri-Columbia. Dr. Burns has an impressive authorship record with 164 published articles in research journals, 15 books and 35 book chapters. He has served as PI or co-PI on external grants totaling close to $15.5M and $10M generated directly to the University.

Dr. Alison C. Dunn – Herbert Wertheim College of Engineering
Associate Professor, Department of Mechanical and Aerospace Engineering
Dr. Alison Dunn earned her B.S. in Mechanical Engineering in 2004, her M.S. Mechanical Engineering in 2006 and her Ph.D. in Mechanical Engineering in 2013 from the University of Florida. Her prior institution is the University of Illinois Urbana-Champaign. Dr. Dunn has 44 peer-reviewed journal articles in high impact journals and 2 book chapters. She is the PI or Co-PI on a total of $1.5M in grants and contracts (2 as PI) from the National Science Foundation including the prestigious NSF Career Award.

Dr. Lenka Bustikova Siroky – College of Liberal Arts and Sciences
Professor, Department of Political Science
Dr. Lenka Bustikova-Siroky earned her AB/AM in Sociology from Charles University, Prague, her AM in Political Science from Central European University in Budapest, her AM in Russian, Eurasian and East European Studies from Harvard University and her Ph.D. in Political Science from Duke University in 2012. Her prior institution is the University of Oxford. Dr. Bustikova-Siroky has

published 25 peer-reviewed articles and has delivered invited presentations from around the world.

Dr. David Siroky – College of Liberal Arts and Sciences
Professor, Department of Political Science
Dr. David Siroky earned his B.A. from Boston University in 1997, his M.A. in Slavic Languages and Literature from the University College London, his M.P.P. in Public Safety from the University of Chicago in 2002 and his M.A. in Economics and Ph.D. in Political Science from Duke University in 2009. His prior institution is the University of Essex in Colchester, UK. Dr. Siroky is the co-author of three books and 40 articles and has a very strong research record with high-impact publications in a wide array of top-tier peer review sources.

Dr. David Silkenat – College of Liberal Arts and Sciences
Professor, Department of History
Dr. David Silkenat earned his A.B. in History from Duke University in 1999, his M.A. in History in 2005 and his Ph.D. in History in 2008 from the University of North Carolina-Chapel Hill. His prior institution is the University of Edinburgh. Dr. Silkenat has authored four books, as well as several book chapters and peer-reviewed journal articles. His research has been supported by the external sponsorship of travel and research that characterizes the humanities, including awards from the Mellon Foundation, the Carnegie Trust, the British Academy and the William and Mark Special Collections Library.

Mr. Thomas (Trey) Shelton, III – George A. Smathers Libraries
Associate University Librarian and Chair, Academic Research Consulting & Services
Mr. Trey Shelton earned his B.S. in Family and Consumer Science: Retail Merchandising with a minor in Business from the University of Montevallo in 2007 and his M.S. in Library and Information Science from the University of South Florida in 2009. His prior institution is the University of Georgia Libraries.

Dr. Michael von Fricken – College of Public Health and Health Professions
Associate Professor, Department of Environmental and Global Health
Dr. von Fricken earned is B.S. in Health Sciences from James Madison University in 2008, his M.P.H. in Epidemiology from the University of Florida in 2011, and his Ph.D. in Public Health from the University of Florida in 2016. His prior institution is George Mason University. Dr. von Fricken has an outstanding record of teaching, research and service in the areas of OneHealth and Global Health. He has a strong record of external funding that is focused on the Department of Defense.

Dr. Kate S. Carroll – The Herbert Wertheim UF Scripps Institute for Biomedical Innovation and Technology
Professor, Department of Chemistry
Dr. Kate Carroll earned her B.A. in Biochemistry and Molecular Biology from Mills College in 1996 and her Ph.D. in Biochemistry from Stanford University in 2002. Her prior institution is The Scripps Research Institute. Dr. Carroll has over 125 peer-reviewed publications. Her research focuses on the study of reactive sulfur species and redox biochemistry in disease biology, and in developing precision small molecule medicines targeting cystine in proteins.

Dr. Wen Li – College of Medicine
Professor, Department of Psychiatry
Dr. Wen Li earned her M.D. in 1994 from Central South University, China, her M.S. in Clinical Psychology from Beijing University in 1997 and her Ph.D. in Psychology from Northwestern University in 2004. Her prior institution is Florida State University. Dr. Li has received several NIH grants as PI and has published in high impact journals such as Science. She specializes in cognitive neuroscience with expertise in electrophysiology, neuroimaging and sensory processing in neuropsychiatric and pain disorders.

Dr. William C. Inboben, III – Hamilton Center for Classical and Civic Education
Professor and Director
Dr. William Inboden earned his A.B. with Honors in History from Stanford University in 1994, his M.A. in History from Yale University in 2001, his M.Phil. in History from Yale University in 2001 and his Ph.D. in History from Yale University in 2003. His prior institution is the University of Texas-Austin. Dr. Inboden is an outstanding scholar and teacher. He built one of the nation's premier multi-disciplinary academic centers on history, strategy and statecraft as the founding director of the Clements Center.

Dr. Mei Liu – College of Medicine
Associate Professor, Department of Health Outcomes and Biomedical Informatics
Dr. Mei Liu earned her B.S., M.S. and Ph.D. in Computer Science at the University of Kansas in 2002, 2004 and 2009 respectively. Her prior institution is the University of Kansas Medicine Center. She has over 70 publications with her work appearing in high impact journals. She is the PI on grants from NSF and NIH/NIDDK that are focused on machine learning and algorithms to predict acute kidney injury.

Dr. Iris Rivero – Herbert Wertheim College of Engineering
Professor, Department of Industrial and Systems Engineering
Dr. Iris Rivero her B.S., M.S. and Ph.D. in Industrial and Manufacturing Engineering from The Pennsylvania State University in 1996, 1998 and 2002, respectively. Her prior institution is Rochester Institute of Technology. Dr. Rivero has published 48 peer-reviewed journal articles in high impact journals, 34 peer-reviewed conference proceeding papers and 2 book chapters. She is an expect on additive and hybrid manufacturing encompassing materials, 3D printing, nondestructive testing with applications to biomanufacturing and tissue engineering.

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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC2
September 7, 2023

SUBJECT: New Degrees

BACKGROUND INFORMATION

The proposed Bachelor of Science in Music Business and Entrepreneurship in the College of the Arts (CIP 50.1003) will prepare students for careers across a range of music business professions. Upon completion of the program, students may pursue a range of career options in music business-related fields, including audio recording and engineering, artist and venue management, music production and marketing, management of both for-profit music businesses and not-for-profit music organizations, and music industry-specific data science and software engineering.

The proposed Bachelor of Science in Meteorology in the College of Liberal Arts and Sciences (CIP 40.0404), will engage the next generation of atmospheric scientists to broader geographical training, building skills that crosscut from meteorology to applied climate science, geospatial analysis, hydrology, business economics, communications, and artificial intelligence. The program will recruit and prepare students for careers in agriculture, business and economics, disaster risk management, emergency management, energy creation and distribution, engineering, national security, political science and policy development, tourism, transportation, and water resource management.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the New Degrees listed above for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is required.

Supporting Documentation Included: New Degrees for Bachelor of Science in Music Business and Entrepreneurship and Bachelor of Science in Meteorology

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023

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Morteza “Mori” Hosseini, Chair Ben Sasse, President and Corporate Secretary

STATE UNIVERSITY SYSTEM OF FLORIDA

Board of Governors, State University System of Florida

REQUEST TO OFFER A NEW DEGREE PROGRAM

In Accordance with BOG Regulation 8.011

(Please do not revise this proposal format without prior approval from Board staff)

University of Florida Institution Submitting Proposal	Fall, 2024 Proposed Implementation Term
College of the Arts/School of Music Name of College(s) or School(s)	School of Music Name of Department(s)/Division(s)
Music Business and Entrepreneurship Academic Specialty or Field	Bachelor of Science in Music Business and Entrepreneurship Complete Name of Degree
50.1003 Proposed CIP Code (2020 CIP)	

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees	President's Signature 8-31-23 Date
Board of Trustees Chair's Signature Date	Provost's Signature 8/29/23 Date

PROJECTED ENROLLMENTS AND PROGRAM COSTS

Provide headcount (HC) and full-time equivalent (FTE) student estimates for Years 1 through 5. HC and FTE estimates should be identical to those in Appendix A – Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Appendix A – Table 3A or 3B. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 by dividing total E&G by FTE.

Implementation Timeframe	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary/ Philanthropy Funds	Total Cost
Year 1	12	9	$7,858.33	$70,725	0	0	$70,725
Year 2	20	15					
Year 3	30	22.5					
Year 4	40	30					
Year 5	50	37.5	$5,768.72	$216,327	0	0	$216,327

Additional Required Signatures

I confirm that I have reviewed and approved Need and Demand Section III.F. of this proposal.

Melissa Fleury
Signature of Equal Opportunity Officer

12/15/22
Date

I confirm that I have reviewed and approved Non-Faculty Resources Section VIII.A. and VIII.B. of this proposal.

Signature of Library Dean/Director

1/4/2023
Date

Introduction

I. Program Description and Relationship to System-Level Goals

A. Describe within a few paragraphs the proposed program under consideration, and its overall purpose, including:

- **degree level(s)**
- **majors, concentrations, tracks, specializations, or areas of emphasis**
- **total number of credit hours**
- **possible career outcomes for each major (provide additional details on meeting workforce need in Section III)**

The Bachelor of Science in Music Business and Entrepreneurship will prepare students for careers across a range of music business professions. Graduates will be empowered to exceed evolving and expanding music industry vocational demands as leaders in music business innovation and entrepreneurialism. With a curriculum designed to develop one's music business acumen as well as specialized music performance skillsets, graduates will be equipped to engage the field as music business leaders who are also skilled music performers.

This degree is distinguished by the collective inclusion of the following elements: (1) a portfolio review and audition demonstrating musical skills suitable for performance in an expanded range of ensembles beyond traditional classical ensembles; (2) the option (not requirement) of incorporating applied studio study, depending upon one's skillset and interests; (3) a curriculum that in the second year offers optional alternative courses in written/aural theory and keyboard uniquely suited to these students; (4) a balance of coursework in both business and entrepreneurship; (5) required ensemble participation in which students also engineer, produce, manage, and market the ensemble; and (6) a capstone business plan developed in collaboration with industry professionals.

Upon completion of this 120-credit program, students may pursue a range of career options in music business-related fields, including audio recording and engineering, artist and venue management, music promotion and marketing, management of both for-profit music businesses and not-for-profit music organizations, and music industry-specific data science and software engineering. Performance opportunities in commercial music business settings would frequently intersect with and augment these career paths. Internships and other practical job-training opportunities will accelerate students' ability to engage with and contribute to multiple facets of the music business within Florida and around the world. As a capstone project, students will develop a sustainable business plan that fosters immediate and impactful entry into the workforce.

B. If the proposed program qualifies as a Program of Strategic Emphasis, as described in the Florida Board of Governors 2025 System Strategic Plan, please indicate the category.

- **Critical Workforce**
  - ☐ Education
  - ☐ Health
  - ☐ Gap Analysis
- **Economic Development**
  - ☐ Global Competitiveness

☐ Science, Technology, Engineering, and Math (STEM)

☒ **Does not qualify as a Program of Strategic Emphasis.**

II. Strategic Plan Alignment, Projected Benefits, and Institutional Mission and Strength

A. Describe how the proposed program directly or indirectly supports the following:

- **System strategic planning goals (see link to the 2025 System Strategic Plan on the New Program Proposals & Resources webpage)**
- **the institution's mission**
- **the institution's strategic plan**

The nontraditional audition and unique curriculum of the proposed BS in Music Business and Entrepreneurship will facilitate access to an entirely new pool of talented and qualified young musicians. Recruitment will be vastly expanded and diversified, thereby advancing both the UF Mission to "create the broadly diverse environment necessary to foster multi-cultural skills and perspectives in its teaching and research for its students to contribute and succeed in the world of the 21st century," and the SUS Strategic Plan's Teaching and Learning Productivity goals surrounding diversification of the baccalaureate student body. The focus upon business and entrepreneurial skills is in direct alignment with the State University System Mission to "support students' development of the knowledge, skills, and aptitudes needed for success in the global society and marketplace."

By expanding the range of music disciplines available for study, and embracing a more diverse applicant pool, this BS degree embraces the entirety of UF's Strategic Plan, but specifically Goal 1, "An exceptional academic environment that reflects the breadth of thought essential for preeminence, achieved by a community of students, faculty, and staff who have diverse experiences and backgrounds," and Goal 2, "An outstanding and accessible education that prepares students for work, citizenship and life."

This degree embodies each major component of the State University System Tripartite Strategic Plan, most directly by *Community and Business Engagement*. Through internships, guest lecturer collaborations, and the building of a capstone business plan, engagement with the successful music entrepreneurs of Florida is inherent in the curriculum. Upon completion of the program, graduates will lead advancement within a broad range of music business opportunities across our state, both as professionals within existing music businesses, and as entrepreneurs building startup businesses.

B. Describe how the proposed program specifically relates to existing institutional strengths. This can include:

- **existing related academic programs**
- **existing programs of strategic emphasis**
- **institutes and centers**
- **other strengths of the institution**

Serving a diverse population of music business and entrepreneurship students, this degree will greatly complement the wide range of successful undergraduate degree programs currently in the UF School of Music. These include well-enrolled BM and BA degrees with majors in Music, Composition, Performance, and Music Education, as well as numerous minors including Jazz Studies. The presence of a new community of young musicians, whose talents, skills, and musical backgrounds may differ from those students traditionally entering our school, stands to enrich the experiences of all

students and faculty in the school.

In addition to these benefits found within the School, further enrichment opportunities would be available – through internships, course electives, and capstone projects – within the College of the Arts' Centers for Arts in Medicine (CAM), and Arts, Migration, and Entrepreneurship (CAME).

Given UF's massive investment in artificial intelligence, students in the proposed BS degree would be well-positioned as leaders in an increasingly data-driven music industry through partnerships with the Artificial Intelligence Academic Initiative (AI2) Center and the UF Informatics Institute (UFII), where they will connect with inter- and multi-disciplinary teams of engineers, scientists and researchers to learn skills and undertake research that will strengthen Florida's economy, foster a culture of community engagement and public service, and revolutionize the future of cultural production.

C. Provide the date the pre-proposal was presented to the Council of Academic Vice Presidents Academic Program Coordination (CAVP ACG). Specify whether any concerns were raised, and, if so, provide a narrative explaining how each concern has been or will be addressed.

The pre-proposal was approved by the CAVP Academic Coordination Group, Sept 7, 2022, with no concerns.

D. In the table below, provide a detailed overview and narrative of the institutional planning and approval process leading up to the submission of this proposal to the Board office. Include a chronology of all activities, providing the names and positions of both university personnel and external individuals who participated in these activities.

- **If the proposed program is a bachelor's level, provide the date the program was entered into the APPRiSe system, and, if applicable, provide narrative responding to any comments received from APPRiSe.**
- **If the proposed program is a doctoral-level program, provide the date(s) of the external consultant's review in the planning table. Include the external consultant's report and the institution's responses to the report as Appendix B.**

The proposed degree was entered into APPRiSe on September 24, 2022. It closed on Oct 3, 2022 and there were no comments.

Planning Process

Date	Participants	Planning Activity Description
Summer-Fall 2021	Laura Ellis, Associate Director José Valentino Ruiz, Faculty Kevin Orr, Director	Preliminary research conducted on the structure, market need, and feasibility of developing a new, distinctive undergraduate degree in this discipline. Consultations were conducted with peers, students, industry professionals, and the School of Music accrediting body, the National Association of Schools of Music (NASM).
Fall 2021-Spring 2022	José Valentino Ruiz, Faculty Kevin Orr, Director	Preparation for and communication with FL institutions having programs in related disciplines, validating distinctiveness of this proposal and avoidance of program duplication.
October 2021	Brenda Smith, Faculty Steven Thomas, Faculty James Sain, Faculty Barry Hartz, Faculty Willard Kesling, Faculty Welson Tremura, Faculty Kevin Orr, Director Laura Ellis, Associate Director José Valentino Ruiz, Faculty	A preliminary discussion of the degree concept was presented to the School of Music Council of Representatives, where it received unanimous support and expressed understanding of need.
November 2021	School of Music Faculty Kevin Orr, Director	A summary of the Council of Representatives discussion and support was presented to the School of Music faculty, affording opportunity for questions or concerns prior to formal development of the proposal.
January-May 2022	Onye Ozuzu, Dean Kevin Orr, Director Jennifer Setlow, Associate Dean Laura Ellis, Associate Director José Valentino Ruiz, Faculty Charles Pickeral, Faculty	In collaboration with the College of the Arts, the School of Music officially presented the degree concept to Provost Joseph Glover, who supported the proposal for inclusion on the UF 2022 Accountability Plan for the FL Board of Governors. This progress update was reported to the School of Music faculty.
July-September 2022	Laura Ellis, Associate Director Charles Pickeral, Faculty José Valentino Ruiz, Faculty Kevin Orr, Director	Upon receiving the BOG's support for UF Accountability Plan, the School of Music commenced writing the CAVP Pre-Proposal document for consideration at the CAVP September 2022 meeting. This progress update was reported to the School of Music faculty.

September 2022	Laura Ellis, Associate Director Charles Pickeral, Faculty Jose´ Valentino Ruiz, Faculty Kevin Orr, Director	The CAVP Pre-Proposal document was completed and approved by UF Provost, Joseph Glover, who included it for consideration by the CAVP Academic Coordination Group. The pre-proposal was approved by the Coordination Group, September 7, 2022, with no questions raised. This progress update was reported to the School of Music faculty.
September 2022	Cheryl Gater, Assistant Provost and Director	The proposed degree was entered into APPRiSe on September 24, 2022. It closed on Oct 3, 2022 and there were no comments.
September-December 2022	Charles Pickeral, Faculty and Committee Chair Laura Dallman, Faculty Christina Tallon, Faculty José Valentino Ruiz, Faculty Scott Wilson, Faculty Kevin Orr, Director	A School of Music Committee was formed to commence writing the formal BOG New Degree Proposal with a goal of submitting it for School of Music faculty consideration by the conclusion of the fall 2022 semester. Consultation with the National Association of Schools of Music, who will ultimately accredit this program, occurred regularly.
November 2022	Charles Pickeral, Faculty and Committee Chair Laura Dallman, Faculty Christina Tallon, Faculty José Valentino Ruiz, Faculty Scott Wilson, Faculty Kevin Orr, Director	A survey to determine interest and feasibility of the proposed degree was conducted among current faculty members at UF and peer institutions, students, alumni, and industry professionals.
November 2022	James Sain, Faculty Laura Dallman, Faculty Barry Hartz, Faculty Lauren Hodges, Faculty Randy Lee, Faculty Kevin Orr, Director	The degree was submitted to the School of Music Curriculum Committee for approval.
December 2022	School of Music Faculty Kevin Orr, Director	Upon Curriculum Committee approval, the degree was submitted to the School of Music full faculty for approval
Spring 2023	Laura Ellis, Associate Director Charles Pickeral, Faculty Jose´ Valentino Ruiz, Faculty Kevin Orr, Director	Upon School of Music faculty approval (TBD as of this writing), the degree was submitted into the UF Online Approvals system. With the degree now moving through the university and state approval system, a formal degree proposal to our accrediting body, the National Association of Schools of Music, commenced.

E. Provide a timetable of key events necessary for the implementation of the proposed program following approval of the program by the Board office or the Board of Governors, as appropriate, and the program has been added to the State University System Academic Degree Program Inventory.

Events Leading to Implementation

Date	Implementation Activity
Fall 2023	Begin a formal recruiting process for the degree, including the development of specialized marketing materials for use across a range of recurring program recruiting events. Update School of Music website, handbooks, and catalog to reflect the forthcoming program. Ensure that all necessary equipment and personnel necessary for program delivery are on schedule for Fall 2024.
Spring-Summer 2024	Continued recruiting for the program. Onboarding of new students and associated new faculty members and/or new faculty member assignments associated with delivery of the program beginning Fall 2024.

Institutional and State Level Accountability

III. Need and Demand

A. Describe the workforce need for the proposed program. The response should, at a minimum, include the following:

- **current state workforce data as provided by Florida's Department of Economic Opportunity**
- **current national workforce data as provided by the U.S. Department of Labor's Bureau of Labor Statistics**
- **requests for the proposed program from agencies or industries in your service area**
- **any specific needs for research and service that the program would fulfill**

This program will address a market need for talented musicians possessing a solid business acumen and entrepreneurial skillsets that engage both the corporate music industry and enterprise start-ups. Graduates will be attractive to prospective music business employers both in Florida and nationally in numerous fields, including music management, marketing, recording/engineering, the entertainment industry, for-profit music businesses, and not-for-profit music organizations. Data points below substantiate that anticipated professional outcomes exceed the State University System Strategic Plan *Strategic Priorities for a Knowledge Economy* cited goal of $43,200 for median wages of bachelor's graduates. Appendix K contains a sampling of professional job advertisements in related fields, as of August 2022.

According to the 2022-30 Florida Department of Economic Opportunity Forecast, growth and strong earning potential exists in the professions of *Producers and Directors*, *Sound Engineer Technicians,* and *Audio/Video Equipment Technicians,* with annual salaries above the Florida per-capita income. *Producers and Directors* is also ranked among the 100 Fastest-Growing Occupations in Florida, while another field for which graduates could be highly qualified, *Motion Picture and Sound Recording Industry,* is listed among Florida's 20 Fastest-Growing Industries.

Statistics for these fields from the 2022-30 Florida Dept. of Economic Opportunity Forecast https://www.floridajobs.org/workforce-statistics/data-center/statistical-programs/employment-projections:

- *Producers and Directors*: Growth: 14.5%; Wage: $30.28/hr, or $62,982/yr
- *Sound Engineering Technicians*: Growth: 9.2%; Wage: $22.62/hr, or $47,049/yr
- *A/V Equipment Technicians*: Growth: 19.9%; Wage: 22.47/hr or $46,737/yr

20 Fastest-Growing Industries in Florida:

- *Motion Picture and Sound Recording Industry*: 21% growth by 2030

The US Bureau of Labor Statistics Occupational Employment and Wage Statistics https://www.bls.gov/oes/current/oes_nat.htm#00-0000 data reports substantively higher national annual wage potential in these same sample professions:

- *Producers and Directors: $101,950*
- *Sound Engineer Technicians: $67,630*
- *Audio and Video Technicians: $55,310*

Advertising and Promotions Management, where Florida boasts the fourth-highest level of employment in the country, is yet another job sector with which these graduates could engage. According to the Bureau of Labor Statistics, 10% job growth is anticipated in the next decade, with a median annual salary of $133,380. A bachelor's degree is required for most entry-level positions. https://www.bls.gov/ooh/management/advertising-promotions-and-marketing-managers.htm

The inclusion of two AI courses in this curriculum, when synthesized with the breadth of other developed skillsets, will yield additional professional opportunities in music industry-specific data science and software engineering careers, where the US Bureau of Labor Statistics cites job growth, 2021-31, at 36%, and median annual salary at $100,910. https://www.bls.gov/ooh/math/data-scientists.htm

B. Provide and describe data that support student demand for the proposed program. Include questions asked, results, and other communications with prospective students.

Repeated inquiries about such a program from prospective students at college fairs, school visitations, and on school audition days, as well as expressed interest from current students, are all factors leading to the initial exploration of this degree. A more detailed exploration of this interest from the survey and results below, fortified by continued job growth in these markets as described in section III,.A., suggests that the body of prospective applicants for this type of program across Florida is substantial.

As a tool for measuring demand, a survey was conducted among prospective students, alumni, faculty colleagues in the discipline, and industry professionals. The results of this are summarized below. The full survey and results can be found in Appendix L.

As seen in Appendix L, the survey contained two major introductory prompts:

1) "Please indicate how important you think each of the following areas is for students pursuing a degree in Music Business and Entrepreneurship."

2) "Based on the proposed degree description, video, and your knowledge of the University of Florida and the School of Music, please indicate how effectively the proposed program addresses each of the following."

Within each major prompt, recipients were asked to respond to five concept areas:

a) Access to university-level music study for talented musicians beyond those trained in traditional classical styles
b) A focus upon career training for both the music industry professional *and* the music entrepreneur
c) Music curricula designed specifically to develop adaptable skillsets suitable to today's diverse music business professional market
d) A focus upon consistent and diverse ensemble participation, with an option for private study, to foster musical development most meaningful to the music business professional
e) Development of a music business plan, achieved in collaboration with established industry professionals

Survey findings demonstrate a highly favorable reaction to the program's distinctive elements. For example, in regard to "access to university-level music instruction for talented musicians beyond those trained in traditional classical styles," 88% of respondents indicated this as "Very important" or "Important," with 79% indicating that the proposed UF degree addresses this "Very effectively" or "Effectively." In regard to the degree's "curricula designed specifically to develop adaptable skillsets suitable to today's diverse music business professional market," 100% of respondents indicated this as "Very important" or "Important," with 83% indicating that the proposed UF degree addresses this "Very effectively" or "Effectively." On the "development of a music business plan, achieved in collaboration with established industry professionals," 96% indicated this component to be "Very important," or "Important," with 83% indicating that the proposed UF degree addresses this "Very effectively" or "Effectively."

Closing the survey, respondents were asked: "Please indicate your interest in either pursuing or recommending the proposed BS in Music Business and Entrepreneurship at the University of Florida." 75% of respondents indicated "Very interested," "Interested," or "Moderately interested."

Samplings of recent job postings (Appendix K) demonstrate a current demand for graduates with the types of multidisciplinary training and skills the UF BS in Music Business and Entrepreneurship will provide. Prospective applicants to the UF BS in Music Business and Entrepreneurship degree will recognize the benefits in achieving this unique degree from a top-five public research university and an AAU-member institution.

This program will cultivate both a wider recruitment pool for talented, experienced musicians and increase the number of markets our graduates' degrees prepare them to join. The curriculum will build skills applicable to multiple music business and entrepreneurially centered music contexts, thereby catering to contemporary students focused upon the pragmatic applications of their studies.

C. Complete Appendix A – Table 1 (1-A for undergraduate and 1-B for graduate) with projected student headcount (HC) and full-time equivalents (FTE). Undergraduate FTE must be calculated based on 30 credit hours per year

- **Graduate FTE must be calculated based on 24 credit hours per year**

In the space below, provide an explanation for the enrollment projections. If students within the institution are expected to change academic programs to enroll in the proposed program, describe the anticipated enrollment shifts and impact on enrollment in other programs.

Based both on capacities of instructional and staff personnel, and capacities of facilities, maximum enrollment by year five is intended to be capped at 50, with roughly 10-12 enrolled each year. This will ensure minimal impact upon existing courses taken by students in this program, and manageable enrollment within courses specialized to them. The enrollment projections are listed as "Other" in Appendix A – Table 1A since the majority of applicants will not be from any of the categories listed, i.e., working musicians or entrepreneurs.

D. Describe the anticipated benefit of the proposed program to the university, local community, and the state. Benefits of the program should be described both quantitatively and qualitatively.

Anticipated benefits of the B.S. in Music Business & Entrepreneurship degree to the

university, local community, and the state, include:

- The nontraditional audition process for this degree will advance access for historically underserved populations whose training and formative musical experiences, while substantive, may differ from those of applicants pursuing more classically focused music degrees.

- Enrichment of the current student body. Current students in the UF School of Music stand to benefit enormously through new curricular and performance collaborations with as many as 50 students (11% of the School of Music student body) possessing musical skillsets and backgrounds that differ from and complement their own.

- Fortification of UF School of Music enrollment well into the future with an expanded base of talented students. The UF School of Music has benefitted from innovative, interdisciplinary degree offerings that attract strong pools of applicants with specialized career interests. The proposed degree continues this philosophy, synthesizing a diversity of student interests applicable across a range of commercial music pursuits.

- Graduates whose creative diversity, talent, and scholarship contribute to music industry job opportunities that exist across the breadth of culturally rich Florida communities.

- Curriculum that directly links class assignments and research projects with 1) local community organizations (performance venues, recording studios, schools, non-arts-business in need of music business-related resources, religious organizations); 2) local music/arts professionals (musicians, event planners, concert promoters, arts administrators, and teachers); and 3) recording and production needs that have long existed within the School of Music performance curriculum.

- Strong contribution to the Florida and national workforce, as evidenced by sample professions discussed in Section III. Job placements within Florida, especially given the growth across many related professions (III.A.) within the 2022-2030 Florida Department of Economic Opportunity Forecast.

E. If other public or private institutions in Florida have similar programs that exist at the four- or six-digit CIP Code or in other CIP Codes where 60 percent of the coursework is comparable, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with appropriate personnel (e.g., department chairs, program coordinators, deans) at those institutions regarding the potential impact on their enrollment and opportunities for possible collaboration in the areas of instruction and research.

As outlined in the table in section II.D., to ascertain the level to which the proposed UF degree would or would not duplicate existing degree programs across Florida, research on potentially similar programs was conducted through email and telephone correspondence with those program coordinators/faculty, department chairs, and/or academic advisors. Five questions were presented:

- What are the main things you look for during a student's audition for entry into the degree program?
- What theory and aural courses do students take? How about piano skills courses?
- What ensembles do students take for your degree program?
- Are courses designed to foster undergraduate student research, or are they more practitioner-based?
- Are there established professional partnerships to help students garner experiential learning opportunities during their degree track or after?

Informed by the feedback, it became clear that substantial program duplication would not exist between the proposed degree at UF and those at SUS or private institutions in Florida. The lack of duplication with SUS institutions was confirmed by the September 2022 presentation to the CAVP Academic Coordination Group, where no questions or concerns were raised.

Public universities with related programs that were contacted include Florida Atlantic University (the only SUS institution with the same CIP code), University of South Florida, and Florida Agricultural & Mechanical University. Private universities with related programs that were contacted include Full Sail University, Florida Southern University, and Southeastern University (all of which have the same CIP code); and University of Miami, Palm Beach Atlantic University, and Jacksonville University. Personnel contacted were extremely helpful in assisting us with our questions and expressing enthusiasm for the prospect of a Bachelor of Science in Music Business and Entrepreneurship at the University of Florida.

Considering the distinguishing elements of the proposed degree taken as a whole, and the anticipated large pool of interested and qualified applicants, impact upon related Florida programs is anticipated to be, at most, marginal.

Considerable potential exists for collaboration with other Florida institutions in both instruction and research, with much of that activity already occurring. Through course activity now in place, UF Music Business/Entrepreneurship faculty and students are:

- Producing audio recording singles, EPs, albums, and music videos as part of inter-university collaborations with students and professors from UF and other Florida state university systems

- Co-creating and facilitating virtual conferences, summits, and day events that provide music business/commercial music-inclined students and professors from UF and other Florida state university systems the opportunities to interact, network, and learn from one another's research and creative activities. Such events have included: Music Industry Leadership Day, Global Music Production & Entrepreneurship Summit, Digital Music Entrepreneurship & Leadership Summit, and International Jazz & Entrepreneurship Camp.

- Hosting guest lectures by musicians and entrepreneurs who run sustainable business enterprises at local and global levels. Students and professors from UF and other Florida state university systems and other state universities have participated in such events.

- Offering virtual and in-person internship opportunities (music marketing, production, engineering, performance, teaching, etc.) to students through collaborative partnerships with students and professors from other Florida state universities.

F. Describe the process for the recruitment and retention of a diverse student body in the proposed program. If the proposed program substantially duplicates a program at FAMU or FIU, provide a letter of support from the impacted institution(s) addressing how the program will impact the institution's ability to attract students of races different from that which is predominant on the FAMU or FIU campus. The institution's Equal Opportunity Officer shall review this Section of the proposal, sign, and date the additional signatures page to indicate that all requirements of this section have been completed.

As described in Section III.F., correspondence with colleagues across Florida has revealed that substantial duplication does not exist between the proposed program and those at other Florida institutions, including FAMU and FIU. Additionally, no questions or concerns were raised by these institutions at the CAVP Academic Coordination Group meeting, September 7, 2022.

The nontraditional audition process for this degree would undoubtedly advance access for historically underserved populations whose training and formative musical experiences, while substantive, may differ from those of applicants pursuing more classically focused music degrees. The fundamental enrichment of the School of Music, both by the exciting presence of these new curricular directions, and by new collaborations among a far broader diversity of students, is extraordinarily promising.

The curriculum is designed to be inclusive of *all* musical styles, including pop/commercial, jazz, classical, blues, rock, etc.. New paths for student recruitment are undeniable, both by the range of musical interests it will welcome, and by the entrepreneurial mindset the curriculum will attract and advance.

Students will learn to be nimble and adapt to various musical situations while maintaining a platform to express musical styles for which they are most passionate. The curriculum is student-centered and malleable to ensure that assignments and training align with students' specific career aspirations.

IV. Curriculum

A. Describe all admission standards and all graduation requirements for the program. Hyperlinks to institutional websites may be used to supplement the information provided in this subsection; however, these links may not serve as a standalone response. For graduation requirements, please describe any additional requirements that do not appear in the program of study (e.g., milestones, academic engagement, publication requirements).

The BS in Music Business and Entrepreneurship is distinguished by its requirement of a portfolio review and audition demonstrating musical performance skills appropriate to popular/commercial music ensembles, as opposed to the traditional required classical performance entrance audition. The portfolio review and ensemble performance proficiency will be evaluated by the appropriate faculty in these specialty areas. Applicants will also be evaluated for music literacy and musicianship skills necessary for success in core courses in music theory, aural skills, and keyboard skills. A document detailing the Audition Assessment and anticipated published audition requirements is attached as Appendix N.

Freshman-level applicants to the University of Florida must have graduated from a regionally accredited secondary school or the equivalent (e.g. G.E.D.). Students that have been educated through homeschool or non-accredited schools will be considered for admission using a holistic review process, which includes an evaluation of earned grades and ACT/SAT scores. Such students are also encouraged to take core classes and submit grades from an accredited secondary or post-secondary institution. At minimum, freshman-level applicants must have 18 academic units, with 16 units in the following categories:

Subject	Required Years
English (with substantial writing)	4 years
Mathematics (Algebra 1, Formal Geometry, Algebra 2)	4 years
Natural Sciences (two units must include laboratory)	3 years
Social Sciences	3 years
Foreign Language (must be sequential)	2 years

Freshman-level applicants must have a cumulative C (2.0) average in the academic core, as computed by the university, at all institutions attended, which includes high school and college credit courses. They must also have a record of good conduct.

To provide an idea of appropriate grades/scores for incoming freshmen, the freshman class of 2021, which is the most recent information available on the University of Florida website, lists the middle 50% of students having a high school GPA of 4.4-4.6, SAT scores of 1330-1470, and ACT scores of 30-34.

Transfer students must meet the following requirements for the University of Florida:

- completion of an Associate of Arts degree from a Florida public institution OR at least 60 transferable semester credit hours from a regionally accredited institution
- evidence of competency in a foreign language by providing a high school transcript

showing completion of two years of the same foreign language OR by completing 8-10 semester hours by the same foreign language

- have a minimum 2.0 overall GPA and a minimum 2.0 GPA at the last institution attended, as calculated by UF
- completion of, or evidence of the ability to complete specific prerequisites for intended major before attending UF
- evidence that the student is in good standing and eligible to return to any institution previously attended

To graduate from the University of Florida, students must complete all degree requirements established by the university, their college, and their major while maintaining a minimum UF cumulative grade point average of 2.0. There is a minimum residence requirement of two semesters, and students who enter a state university in Florida with fewer than 60 credits must earn at least nine credits before graduation during summer terms. Students are also required to complete a foreign language requirement, which can be met by having taken two sequential courses of a foreign language in secondary school, 8-10 semester credits at the postsecondary level or documentation of an equivalent level of proficiency. If a major has language requirements above the minimum required by the university, students must those requirements to graduate.

BS in Music Business and Entrepreneurship students must meet all these requirements and also successfully complete a capstone business plan developed in collaboration with industry professionals. The full curriculum is outlined in section D below, and in Appendix M.

B. Describe the specific expected student learning outcomes associated with the proposed program. If the proposed program is a baccalaureate degree, include a hyperlink to the published Academic Learning Compact and the document itself as Appendix C.

The Bachelor of Science in Music Entrepreneurship and Business provides a liberal arts education emphasizing entrepreneurship and business, particularly as these pursuits relate to the field of music. Anticipated professional outcomes and associated growth and salary potential are discussed throughout this document, particularly in section III. A working copy of the Academic Learning Compact designed specifically for this degree can be found in Appendix C. As this is a new degree proposal, it is not yet published.

Students successfully completing a Bachelor of Science in Music Entrepreneurship and Business degree will meet the following student learning outcomes:

SLO 1: Content

Design, create, launch, and test both products and services that correlate to students' career aspirations.

Evaluation Method: (MUM 4561) rubric from portfolio submission

SLO 2: Critical Thinking

Research, assess, and critique the business, marketing, and entrepreneurial strategies of successful creative arts entrepreneurs.

Evaluation Method: (MUM 4905) rubric from the capstone creative project

SLO 3: Communication

Design and implement professional marketing materials to utilize a variety of multimedia applications.

Evaluation Method: (MUM 4051) rubric from portfolio submission

C. If the proposed program is an AS-to-BS capstone, provide evidence that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as outlined in State Board of Education Rule 6A-10.024. Additionally, please list the prerequisites, if any, and identify the specific AS degrees that may transfer into the proposed program.

☒ **Not applicable to this program because it is not an AS-to-BS Capstone.**

D. Describe the curricular framework for the proposed program, including the following information where applicable:

- **total numbers of semester credit hours for the degree**
- **number of credit hours for each course**
- **required courses, restricted electives, and unrestricted electives**
- **a sequenced course of study for all majors, concentrations, tracks, or areas of emphasis**

The semester-by-semester plan for this 120-hour degree program is as follows. Bold-type indicates critical tracking courses.

FRESHMAN YEAR
Fall Semester (14 credits)
MUT 1111 Music Theory 1 (2 credits)
MUT 1241L Aural Skills 1 (1 credit)
MVK 1111 Secondary Piano 1 (1 credit)
MUS 1010 Recital Attendance (0 credits)
MUN 1000- or 2000-Level Ensemble (1 credit)
Elective (3 credits)
Quest 1* (GE-H) (3 credits)
Mathematics (GE-M) (3 credits)

Spring Semester (14 credits)
MUT 1112 Music Theory 2 (2 credits)
MUT 1242L Aural Skills 2 (1 credit)
MVK 1112 Secondary Piano 2 (1 credit)
MUS 1010 Recital Attendance (0 credit)
MUN 1000- or 2000-Level Ensemble (1 credit)

MUS 1360 Digital Musicianship and Production (3 credits)
Composition (GE-C, WR) (3 credits)
Statewide Core (GE-M) (3 credits)

SOPHOMORE YEAR
First Semester (14 credits)
MUT 2116 Music Theory 3 (2 credits)
MUT 2246L Aural Skills 3 (1 credit)
or **MUT 1361 Commercial Music Theory and Practice 1 (2 credits)**
(name change proposed from Jazz Fundamentals 1)
MUT 1XXX Commercial Aural Skills 1 (1 credit)
MVK 2221 Secondary Piano (3) (1 credit)
or **MVK 2XXX Commercial Keyboard Skills 1 (1 credit)**
MUS 1010 Recital Attendance (0 credits)
MUN 1000- or 2000-Level Ensemble (1 credit)
MUH 2501 World Music (GE-H, and N) (3 credits)
Statewide Core (GE-S) (3 credits)
Statewide Core (GE-P/B) (3 credits)

Spring Semester (14 credits)
MUT 2117 Music Theory 4 (2 credits)
MUT 2247L Aural Skills 4 (1 credit)
or **MUT 1362 Commercial Music Theory and Practice 2 (2 credits)**
(name change proposed from Jazz Fundamentals 2)
MUT 1XXX Commercial Aural Skills 2 (1 credit)
MVK 2222 Secondary Piano 4 (1 credit)
or **MVK 2XXX Commercial Keyboard Skills 2 (1 credit)**
MUS 1010 Recital Attendance (0 credits)
MUN 1000- or 2000-Level Ensemble (1 credit)
Quest 2 (GE-P/B) (3 credits)
Statewide Core (GE-H) (3 credits)
Electives (3 credits)

JUNIOR YEAR
First Semester (16 credits)
MUM 4051 Strategic Music Entrepreneurship Development (3 credits)
MUH 3/4000 Music History Elective** (3 credits)
HUM 3XXX Computational Creativity: Intro to Coding for Artists (3 credits)
MUS 1010 Recital Attendance (0 credits)
MUN 3015 Commercial Music Ensemble (1 credit)
Electives (6 credits)

Second Semester (16 credits)
MUM 4500 Music Production in Commercial Media (3 credits)
MUN 3015 Commercial Music Ensemble (1 credit)
MUS 1010 Recital Attendance (0 credits)
MUH 3/4000 Music History Elective** (3 credits)
Electives (6 credits)
State Core (GE-C) (3 credits)

SENIOR YEAR
First Semester (16 credits)
MUM 4005 Foundations of Music Business (3 credits)
MUN 4940 Music Internship Ensemble (1 credit)
MUM 4XXX Capstone Project 1 (3 credits)
Electives (6 credits)
Social and Behavioral Sciences (GE-S, D) (3 credits)

Second Semester (16 credits)
MUM 4561 Multimedia Prod. for Music Industry (3 credits)
MUN 4940 Music Internship Ensemble (1 credit)
MUM 4XXX Capstone Project 2 (3 credits)
MUT 3XXX Musical Data Structures (3 credits)
Electives (6 credits)

*The Quest 1 course Social Impact of Music Entrepreneurs is recommended, but not required.
**Students can complete any MUH 3000/4000 level course including MUH 3025, MUH 3211, MUH 3541, MUH 4016, MUH 4722, MUH 4724, or MUH 4930.

E. Provide a brief description for each course in the proposed curriculum.

Required Music Courses

HUM 3XXX Computational Creativity: Intro to Coding for Artists

Introduction to programming for artistic applications focusing on basic algorithmic literacy. We will examine common programming structures and logic used in rule-based systems, stochastic processes, recursion, and basic machine learning for both analytical and generative purposes. Other topics explored included human-computer interaction and UX design, development cycles and tools for collaborative coding, documentation, and best practices for writing maintainable code.

MUH 2501: Introduction to World Musics (H and N)

Introduction to musics of non-western cultures in comparison with music of Western European civilizations; the nature of music and the realm of ethnomusicology.

MUM 4051 Strategic Music Entrepreneurship Dev.

This course equips students with a comprehensive foundation, resources, and skill set for improving marketability and success as a music entrepreneur upon graduation. Students will develop various skills for understanding and engaging in business, legalities, communication arts, innovative content creation, and niche development within local and global contexts of music entrepreneurship.

MUM 4005 Foundations of Music Business

This course fosters a comprehensive and chronological understanding of major facets of the music business and observes how rapid changes in the global music industry that challenges music professionals and music business organizations to become more

entrepreneurial in their planning and practice.

MUM 4500 Music Production in Commercial Media

This course is intended to cultivate industry-standard skills in the recording arts and sciences for creating music that facilitates entrepreneurs' commercial media and marketing platforms. Students will cultivate audio engineering, microphone placement, & production techniques to devise (1) original music within various cross-cultural and cross-generational musical genres and (2) musical scores, foley FX, and voice-overs to support commercial media (i.e., albums, visual media, digital advertisements, and podcasts).

MUM 4561 Multimedia Prod. for Music Industry

This course develops independent music professionals' skills for creating enthralling multimedia content and implementing strategic communication strategies for (1) applying effective target marketing via online platforms, (2) increasing employability for multimedia music presentations, and (3) expanding vocational opportunities within various sectors of the music industry.

MUM 4XXX Capstone Project 1

This course engages students in music business/entrepreneurship-related research and practice in the early stages of development of, or refinement of, a business plan, synthesizing vocational interests with theory and practice. Projects should reflect a comprehensive application of music business and entrepreneurship concepts. This is the first of two capstone courses.

MUM 4XXX Capstone Project 2

This course engages students in music business/entrepreneurship-related research and practice in the final stages of development of, or refinement of, a business plan, synthesizing vocational interests with theory and practice. Projects should reflect a comprehensive application of music business and entrepreneurship concepts. This is the second of two capstone courses.

MUN 1000 or MUN 2000 Level Ensemble

Students can audition and/or enroll in a 1000-level ensemble. Examples of options include various instrumental and jazz bands, choirs, orchestra, percussion ensemble, guitar ensemble, steel drum ensemble, and small chamber music groups.

MUN 3015 Commercial Music Ensemble

The objective of is course is to provide students with the tools and experience necessary to excel as studio and performing musicians in the commercial music world. Students will analyze, study, arrange, and perform a variety of commercial music styles including but not limited to rock, pop, jazz, funk, alternative, country, soul, R&B, Latin, World, etc.

MUN 4940 Music Internship Ensemble

The course provides students with supervised, evaluated, practical music business-related training in music ensembles on and off campus such as facilitating audio and media products (i.e., recordings and promotional videos), marketing materials (i.e., flyers and social media advertisements), and managerial tasks that advance their designated ensemble's success.

MUS 1010 Recital Attendance

Attendance at concerts and recitals. Students must check the school of music student's handbook for specific attendance requirements. (S-U)

MUS 1360 Digital Musicianship and Production (3 credits)

Provides the fundamentals of music technology in the context of its historical and cultural use. Addresses scientific foundations of acoustics, hearing, and digital audio as well as technical skills for music production; students will work on practical applications of these concepts and techniques. Furthermore, the instructor will encourage students to critically explore cultural aspects of music technology.

MUT 1XXX Commercial Aural Skills 1

This course aims to equip students with a comprehensive foundation in commercial aural skills by engaging in focused aural activities and exercises that fortify competencies to pursue a commercial music career. Topics include aurally identifying and transcribing commercial music elements such as harmony, grooves, repertoire, and audio production parameters.

MUT 1XXX Commercial Aural Skills 2

This course aims to equip students with a comprehensive foundation in commercial aural skills by engaging in focused aural activities and exercises that fortify competencies to pursue a commercial music career. Topics include aurally identifying and transcribing commercial music elements such as advanced harmony, grooves, genres, & audio production parameters.

MUT 1111 Music Theory 1

Studies rhythms, intervals, motifs, phrases, melodies, chords and chord progressions, in the standard clefs through listening, playing, and writing. Chord study includes primary and secondary triads in root position and inversions, non-harmonic tones and seventh chords.

MUT 1112 Music Theory 2

Rhythms, intervals, motifs, phrases, melodies, chords and chord progressions, in the standard clefs through listening, playing, singing and writing. Chord study includes primary and secondary triads in root position and inversions, non-harmonic tones and diatonic seventh chords.

MUT 1241L Aural Skills 1

First of a sequence of four courses that develop skills in sight singing and ear training. Singing techniques are taught at the beginning of the course.

MUT 1242L Aural Skills 2

Second of a sequence of four courses that develop skills in sight singing and ear training.

MUT 1361 Commercial Music Theory & Practice 1

This course is fully online and provides a basic theoretical understanding of jazz harmony, jazz chord symbols, common jazz scales and modes, jazz articulations, blues forms and piano voicings. Online resources include online platform, flash cards, worksheets and 35 instructional videos.

MUT 1362 Commercial Music Theory & Practice 2

This course provides an intermediate theoretical understanding of jazz harmony, jazz chord symbols, common jazz scales and modes, jazz articulations, blues forms, piano voicings, the basics of tune writing and techniques in accurately memorizing jazz standards. Online resources include online platform, flash cards, worksheets and 35 instructional videos.

MUT 2116 Music Theory 3

Using Roman numerals, analyze harmonically the music of the common practice period; includes all harmonic materials studied to date such as Borrowed chords, Neapolitan 6th chords, and Augmented 6th chords. The study of forms from the 18th and 19th Centuries.

MUT 2117 Music Theory 4

The study of the materials and structures of tonal and post-tonal music through reading, listening, model composition, and music analysis.

MUT 2246L Aural Skills 3

Third of a sequence of four courses that develop skills in sight singing and ear training.

MUT 2247L Aural Skills 4

Fourth in a sequence of four courses that develop skills in sight singing and ear training.

MUT 3XXX Musical Data Structures

Musical Data Structures teaches foundational computational methods for the analysis and generation of musical materials and structures to better understand how humans produce and interact with them. Topics covered will include music representation and encoding, music information retrieval, corpus studies, statistical modeling, machine improvisation, and procedural music generation. These techniques will be considered in the context of many different aesthetics, styles, genres, modes of music-making, and theoretical frameworks. We will also examine the ways in which various computational methods are related to music cognition, authorship, intellectual property, labor, and

automation, with an eye towards understanding how advances in artificial intelligence (and technology in general) are changing the ways that we create and consume music in the twenty-first century.

MVK 1111 Secondary Piano 1

The sequence of Secondary Piano courses covers the necessary skills for basic functionality at the keyboard that are fundamental to any musician. Secondary Piano 1 covers basic piano skills through sight-reading, transposition, harmonization, simple solo and ensemble repertoire, and scales and arpeggios in the white-key starting major keys.

MVK 1112 Secondary Piano 2

The sequence of Secondary Piano courses covers the necessary skills for basic functionality at the keyboard that are fundamental to any musician. Secondary Piano 2 is a continuation of Secondary Piano 1 and covers intermediate piano skills through sight-reading, transposition, harmonization, improvisation, solo and ensemble repertoire, and scales and arpeggios in all major keys.

MVK 2XXX Commercial Keyboard Skills 1

This course aims to equip students with a comprehensive foundation in commercial keyboard skills by engaging in activities and exercises that fortify competencies to pursue a commercial music career. Topics include performing standard commercial chord progressions, eight-bar comping patterns and riffs, bass lines, and ii-V-I progressions.

MVK 2XXX Commercial Keyboard Skills 2

This course aims to equip students with a comprehensive foundation in commercial keyboard skills by engaging in activities and exercises that fortify competencies to pursue a commercial music career. Topics include performing advanced chord voicings, songs, improvisations, and lead sheets utilizing various commercial keyboard patches.

MVK 2221 Secondary Piano 3

The sequence of Secondary Piano courses covers the necessary skills for basic functionality at the keyboard that are fundamental to any musician. Secondary Piano 3 is a continuation of Secondary Piano 2 and covers early-advanced piano skills through sight-reading, score-reading, transposition, harmonization, improvisation, solo and accompanying repertoire, and scales and arpeggios in all major and minor keys.

MVK 2222 Secondary Piano 4

Secondary Piano 4 covers all necessary requirements of the departmental piano proficiency which is built upon the accumulation of Secondary Piano 1 through 3 and beyond.

MUH Electives*

In addition to MUH 2501, two additional courses are required from the list of MUH offerings.

Students can choose from MUH 4930: Special Topics in Music History, with rotating topics of current or special interest to students or instructors. Other courses include MUH 4724: Music and Audience, which considers the role and function of the audience in conjunction with various performing ensembles; MUH 4722: Timbre: Critical Discussions, which explores timbre in classical and popular music genres using lenses such music education and demographic markers.

MUH 3025: Popular Music in the USA: From Ragtime to Hip-hop and Beyond (H and D)

Survey of the musical styles, artists, audiences and eras of American popular music in relation to the social, cultural, political and historical contexts in which they emerged. Special attention is given to the diversity and intersecting nature of musical voices in the USA through the examination of musical styles including rock, rhythm and blues, country, punk, hip-hop, salsa and beyond.

MUH 3211 History of Music 1 (H and N)

This course is a survey of music literature, styles, and techniques from antiquity to c. 1750. We will examine representative repertoire from historical, theoretical, and cultural contexts and develop critical thinking skills in reading, writing, analysis, and listening.

MUH 3212 History of Music 2 (H and N)

This course is a survey of music literature, styles, and techniques from c. 1750 to the present day. We will examine representative repertoire from historical, theoretical, and cultural contexts and develop critical thinking skills in reading, writing, analysis, and listening.

MUH 3541: Latin American Music (H and N)

The variable musical expressions of Latin America (including the Caribbean), their historical formations and social importance. (H and N)

MUH 4016: History of Jazz (H and N)

Traces from African, Latin American and Black American sources through contemporary development of jazz music and performance.

<u>Required University General Education</u>

Statewide Core (GE-P/B)

Students will choose a 3-credit science courses from a statewide approved list of courses, such as AST 1002, Discovering the Universe (P); BOT 2011C, Plant Diversity (B); CHM 1020, Chemistry for the Liberal Arts (P); or EVR 2001 Introduction to Environmental Science (B or P).

Composition (GE-C, WR) and Statewide Core (GE-C)

Students will choose 3-credit composition courses from a statewide approved list of courses, such as ENC 1101, Expository and Argumentative Writing; ENC 2210, Technical Writing; or ENC 3465, Writing in the Law.

Quest 1 (GE-H) and Quest 2 (GE-P/B)

Undergraduate students are required to take UF Quest courses to complete the general education requirement. Quest courses ask students to consider why the world is the way it is and what they can do about the problems confronting us. Eschewing rote learning and standardized tests in favor of close reading, critical thinking, and effective communication of ideas, UF Quest promotes a high level of faculty engagement in undergraduate education and gives students the opportunity to choose courses that are meaningful to them.

Mathematics (GE-M) and Statewide Core (GE-M)

Students will choose 3-credit mathematics courses from a statewide approved list of courses, such as MAC 1105, Basic College Algebra; MGF 1106, Mathematics for Liberal Arts Majors 1; or STA 2023, Introduction to Statistics 1.

Statewide Core (GE-H)

Students will choose a 3-credit humanities course from a statewide approved list of courses, such as ARH 2000 Art Appreciation: American Diversity and Global Arts; LIT 2000, Introduction to Literature; or THE 2000, Theatre Appreciation.

Statewide Core (GE-S)

Students will choose a 3-credit social/behavioral sciences course from a statewide approved list of courses, such as ANT 2000, General Anthropology; POS 2041, American Federal Government; or PSY 2012, General Psychology.

Additional examples of courses in each general education category are available at https://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext

Electives

This degree has 30 electives. These electives are not restricted, thereby allowing students the opportunity to complete another bachelors degree, a combined degree, or a certificate or a minor in an area of their choice that will complement and ideally inform their capstone project. Examples include, but are not limited to:

- African-American Studies Minor (15 credits)
- Artificial Intelligence and the Arts Certificate (12 credits)
- Artificial Intelligence and Data Analytics in Tourism, Hospitality and Event Management Certificate (9 credits)

- Artificial Intelligence Fundamentals and Applications Certificate (9 credits)
- Business Administration Minor (24 credits)
- Education Studies Minor (15 credits)
- Engineering Innovation Minor (15 credits)
- Entrepreneurship Minor (17-19 credits)
- Environmental Justice and Policy Minor (15 credits)
- Ethics and Society Certificate (12 credits)
- Event Management Minor (15 credits)
- International Communication Certificate (9 credits)
- Latin American Studies Minor (15 credits)
- Master of Science in Management (12 credits)
- Master of Science in Entrepreneurship (12 credits)
- Music in Medicine Certificate (12 credits)
- Nonprofit Organizational Leadership Minor (15-16 credits)
- Public Relations Minor (15 credits)
- Spanish for the Professions Certificate (12 credits)

Students could also use elective credits to take applied lessons on their instrument, provided they complete and pass a School of Music audition.

F. For degree programs in medicine, nursing, and/or allied health sciences, please identify the courses that contain the competencies necessary to meet the requirements identified in Section 1004.08, Florida Statutes. For teacher preparation programs, identify the courses that contain the competencies necessary to meet the requirements outlined in Section 1004.04, Florida Statutes.

☒ **Not applicable to this program because the program is not a medicine, nursing, allied health sciences, or teacher preparation program.**

G. Describe any potential impact on related academic programs or departments, such as an increased need for general education or common prerequisite courses or increased need for required or elective courses outside of the proposed academic program. If the proposed program is a collaborative effort between multiple academic departments, colleges, or schools within the institution, provide letters of support or MOUs from each department, college, or school in Appendix D.

The Common Prerequisites for the proposed CIP Code, 50.1003, are included in Appendix F.1, as found at Florida Atlantic University (FAU). The proposed degree by the University of Florida is in compliance with existing Common Prerequisite courses. Some courses may be variable credit. Three alternative courses are introduced in the sophomore year, as evidenced in Appendix F, CPM Revision Application; Appendix M, the program's 8-semester plan; and in this document under IV. D., which details the program semester-by-semester. Transfer students from other SUS institutions would not be asked to repeat common courses already achieved.

Delivery of this degree will require two new courses in Commercial Keyboard Skills, two new courses in Commercial Aural Skills (these are shown as alternative courses in the fall/spring semesters of the sophomore year, section IV.D. above), a new Capstone Project course, and new specialized Commercial Music and Internship ensemble courses. This instruction will be covered by current faculty in this discipline, by the redistribution of existing faculty teaching assignments where specialties exist, and if necessary, by the partial load assignment of future faculty appointments in this area.

This degree is not a collaborative effort between departments, colleges, or schools within the University of Florida.

H. Identify any established or planned educational sites where the program will be offered or administered. If the proposed program will only be offered or administered at a site(s) other than the main campus, provide a rationale.

The BS Music Business and Entrepreneurship degree will be offered on campus in Gainesville, FL at the University of Florida.

I. Describe the anticipated mode of delivery for the proposed program (e.g., face-to-face, distance learning, hybrid). If the mode(s) of delivery will require specialized services or additional financial support, please describe the projected costs below and discuss how they are reflected in Appendix A – Table 3A or 3B.

The BS Music Business and Entrepreneurship degree will be a primarily residential program delivered on the campus of the University of Florida. All courses for the degree can be taken on campus. Some elective courses may be offered online according to student interests and needs.

Table 3A Programmatic Expenses include the sum of equipment purchases necessary for this specific degree program: $4,000 in year one for specialized audio/video recording equipment for the computer lab, and an additional $24,000 by year four for recording equipment required for delivery of the Music Internship Ensemble course. Additionally, Table 3A Programmatic Expenses includes an anticipated allotment of undergraduate scholarship dollars (from existing endowment funds), $10,000 in year one, and $25,000 in year five.

The teaching load equivalent of one additional faculty member will be necessary for delivery of this program by year four. This will be achieved both through partial load reallocation of a current faculty member, as reflected in Table 4, and the partial assignment of a future faculty hire to this program.

J. Provide a narrative addressing the feasibility of delivering the proposed program through collaboration with other institutions, both public and private. Cite any specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

Considering elective coursework and co-curricular activity in Music Business and Entrepreneurship currently occurring at UF, the feasibility of delivering the proposed program is very strong. For the past four academic years, we have been delivering elements of the proposed program through collaboration with other public and private institutions within and beyond the state of Florida through the sharing of major guest clinicians from the industry, offering internship sharing opportunities, exchanging faculty guest lectures among Florida universities, and working on capstone projects in collaboration with specialists from other Florida universities and professional music business/entrepreneurship organizations and societies.

We are producing audio recording singles, EPs, albums, and music videos as part of inter-university collaborations with students and professors from UF and other universities in the Florida state university system. We are co-creating and facilitating virtual conferences, summits, and day events that provide music business/commercial music-inclined students. As such, we are giving professors from UF and other universities the opportunities to interact, network, innovate, and learn from one another's research and creative activities, as well as learn from top-tier music industry leaders and companies based in Florida. Examples of such events include Music Industry Leadership Day, Global Music Production & Entrepreneurship Summit, Digital Music Entrepreneurship & Leadership Summit, and the International Jazz & Entrepreneurship Camp.

UF Music Business and Entrepreneurship faculty regularly host guest lectures by musicians and entrepreneurs who run sustainable business enterprises at local and global levels. Students and professors from UF and other universities have participated in these events. We also offer virtual and in-person internship opportunities (music marketing, production, engineering, performance, teaching, etc.) to students through collaborative partnerships with students and professors from other Florida state universities.

The UF Music Business and Entrepreneurship Area is eager to provide cross-curricular collaborations, such as offering UF music business/entrepreneurship online courses to other universities as a means to facilitate access, equity, and inclusion in support of students from other Florida institutions.

K. Describe any currently available sites for internship and/or practicum experiences. Describe any plans to seek additional sites in Years 1 through 5.

☐ Not applicable to this program because the program does not require internships or practicums.

Although the curriculum does not specifically require professional internships, innumerable opportunities for interaction with music business professionals would be facilitated by faculty members whose research closely ties the program to prominent

industry leaders. The degree's music business-focused coursework, including but not limited to development of a capstone business plan, places students in direct connection with outside professionals. Additionally, the Music Internship Ensemble (year four) places students into the recording/production setting with music performers within and beyond the UF School of Music.

V. Program Quality Indicators - Reviews and Accreditation

A. List all accreditation agencies and learned societies that would be concerned with the proposed program. If the institution intends to seek specialized accreditation for the proposed program, as described in Board of Governors Regulation 3.006, provide a timeline for seeking specialized accreditation. If specialized accreditation will not be sought, please provide an explanation.

The National Association of Schools of Music (NASM) is the nationally recognized accrediting body. The BS in Business and Entrepreneurship degree was created in consultation with NASM to meet its strict standards for accredited undergraduate degrees.

In accordance with the NASM accrediting schedule, upon submission of the degree for institutional approval, the BS in Business and Entrepreneurship will be presented to NASM for consideration at the June 2023 meeting of the NASM Commission on Accreditation.

All University of Florida School of Music degrees, undergraduate and graduate, are nationally accredited by the National Association of School of Music (NASM). Reaccreditation occurs at ten-year intervals, with the most recent reaccreditation occurring over the period 2021-2022.

B. Identify all internal or external academic program reviews and/or accreditation visits for any degree programs related to the proposed program at the institution, including but not limited to programs within academic unit(s) associated with the proposed degree program. List all recommendations emanating from the reviews and summarize the institution's progress in implementing those recommendations.

Following a UF School of Music program review that began in October 2021, the National Association of Schools presented a Visitor's Report that, in addition to a summary of findings, included several recommendations and requests for further information.

Recommendations/issues cited by NASM included:

- A critical need for facilities improvements—dedicated performance and rehearsal spaces, acoustic treatments, equipment maintenance, and building safety
- Clarification about Health and Safety education and protection for music students.
- Questions about the level of institutional financial support following a change in budget model in the college
- The adequacy of staff support for the size and scope of School of Music programs
- The level of resources – including financial support, dedicated faculty, and library materials – to support the Master of Music in Ethnomusicology degree program

- Questions about the foreign language requirements and ensemble access for graduate students in the Master of Music and Doctor of Musical Arts programs in Choral Conducting

- Clarification on the articulation agreement with New World School of the Arts

In response to these concerns, the School of Music:

- Presented updated information about the University's commitment to build an additional music facility that would address the needs for performance and rehearsal space, as well as ameliorate some of the sound insulation concerns in the current Music Building by relocating much of the applied activity to the new facility. Plans for new and current facilities, as well as development materials were provided.

- Outlined current and forthcoming efforts to educate students in discipline-specific health concerns and precautions through guest presenters, online resources, and faculty support. Plans to provide safety equipment such as custom-fitted earplugs were included.

- Described the recently adopted zero-based budget model and its ability to address the operating requirements of the school, while acknowledging a critical need for additional graduate assistantships

- Verified the expansion of staff positions within the school

- Offered details about the faculty, ensemble, and library resources currently in place in the Master of Music in Ethnomusicology degree program

- Clarified the assessment plans and ensemble opportunities in the Master of Music and Doctor of Musical Arts programs in Choral Conducting

- Provided updated documentation, including letters of agreement, regarding the University's relationship with New World School of the Arts

Following receipt of these documents, the National Association of Schools of Music Commission on Accreditation voted in July 2022 to continue the University of Florida School of Music in good standing while requesting additional clarification on some of the above points.

C. For all degree programs, discuss how employer-driven or industry-driven competencies were identified and incorporated into the curriculum. Additionally, indicate whether an industry or employer advisory council exists to provide input for curriculum development, student assessment, and academic-force alignment. If an advisory council is not already in place, describe any plans to develop one or other plans to ensure academic-workforce alignment.

This proposal, as well as the degree program itself, rely heavily upon the contributions of two faculty specialists who regularly interface with music industry professionals. According to the expectations of their research assignment, these faculty remain

continually abreast of evolving trends in the disciplines of music business and entrepreneurship. As active performers, producers, and organizers of industry events, they are intimately connected to statewide and national networks of music professionals. Their extensive knowledge of industry driven competencies was a primary driving force behind the creation of this degree.

Faculty connections will enable student engagement with industry-leading organizations, while interaction with guest speakers and instructors from all facets of the music business community will facilitate an enhanced academic-workforce alignment.

VI. Faculty Participation

A. Use Appendix A – Table 2 to identify existing and anticipated full-time faculty who will participate in the proposed program through Year 5, excluding visiting or adjunct faculty. Include the following information for each faculty member or position in Appendix A – Table 2:

- **the faculty code associated with the source of funding for the position**
- **faculty member's name**
- **highest degree held**
- **academic discipline or specialization**
- **anticipated participation start date in the proposed program**
- **contract status (e.g., tenure, tenure-earning, or multi-year annual [MYA])**
- **contract length in months**
- **percent of annual effort that will support the proposed program (e.g., instruction, advising, supervising)**

This information should be summarized below in narrative form. Additionally, please provide the curriculum vitae (CV) for each identified faculty member in Appendix E.

Initially, the proposed BS in Music Business and Entrepreneurship degree will primarily rely upon the efforts of ten existing faculty members on regular lines, including ten 9-month teaching faculty members in the areas of music business & entrepreneurship, commercial and jazz music, music theory and composition, musicology, AI & music technology, ethnomusicology, and applied percussion, as well as one 12-month Senior Associate In who serves as the Director of Music Admissions and Undergraduate Student Services.

Based upon projected enrollment, these faculty will devote approximately 3% of their total effort to the program in year one and reach 11% by year five. In addition, projected enrollment will require the hiring of one additional 9-month faculty member by year four whose effort will also be at 11% by year five.

Please see Table 2 in Appendix A and also Appendix E.

B. Provide specific evidence demonstrating that the academic unit(s) associated with the proposed program have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, and other qualitative indicators of excellence (e.g., thesis, dissertation, or research supervision).

The School of Music at the University of Florida is committed to the teaching and development of musicians, music educators, and scholars. The school fully encourages scholarly research, creative activity, and interdisciplinary studies across all degree programs. Undergraduate and graduate offerings are intended to meet the needs of a diverse student population and to prepare these students for professional careers in music. The faculty includes renowned performers and pedagogues who are committed to the development of musicians and to the musical enrichment of the community. Graduate studies in the School of Music are expanding to include and support a broad range of music degrees and programs.

Enrollment across UF School of Music programs has remained stable, and in some areas has grown substantially, in the past ten years. Increases in each year since 2011 have expanded undergraduate enrollment to 247 majors in 2022, by internal reporting. Graduate programs (MM, DMA, and PhD) have increased enrollments during the past decade, as internal reporting indicates graduate enrollment at 200 across all programs, live and online. Recent combined undergraduate and graduate enrollment across all School of Music programs stands at 447 majors.

The major enrollment growth in the School of Music is summarized as follows:

SCHOOL OF MUSIC MAJORS			
	2000	2009	2022
UNDERGRADUATE	145	195	247
MASTER'S	40	53	141
DOCTORAL	20	37	59

The school also offers music instruction to a small number of music minors. Despite a very competitive recruitment environment and disruption during the COVID-19 pandemic, the School has been able to grow in undergraduate majors by roughly 17% over the last ten years, master's students by 181%, due largely to investment in the online program in Music Education, and doctoral students by 62%, due largely to the relatively new Doctor of Musical Arts program.

There are currently fifty residential faculty members in the School of Music, thirty-eight of whom are in full-time, tenure-track positions, one full-time lecturer, one half-time lecturer, two full-time academic advisors (considered non-teaching faculty), and eight residential adjuncts. An additional 20+ adjuncts serve the fully online, self-supporting Master of Music Education program. This compares to 2010 when there were forty-five

faculty members, thirty-eight of whom were full-time, and seven were adjunct. New faculty appointments in recent years have resulted both from university growth initiatives and refilling positions vacated from retirements or otherwise. Loads among academic faculty equate to a 3+3 fall/spring semester course load, with some variance allotted to research assignments. Applied studio faculty members maintain comparable assignments, overseeing high-enrollment applied studios with some variance allotted for contributing related area academic courses and research.

The overall residential music-major student/faculty ratio (full-time and teaching) in the School of Music is at approximately 7:1, based upon the 2020-2021 enrollment figures. This ratio is simply a reflection of total enrollment divided by the number of faculty, and thus there are ratio variances across the program.

Since instituting formal annual assessments of Student Learning Outcomes in 2011, School of Music student assessments have averaged 4.47 out of a possible 5 across all programs, graduate and undergraduate.

The School of Music is well-equipped to sustain the successful recruitment of talented students. Beyond academic-based scholarships undergraduate music students typically garner for high scholarly achievement, the School of Music manages an endowment that has yielded approximately $950,000 from which *merit-based* performance scholarships are assigned for recruiting and retaining a high-performing student population.

The School of Music is, by nature, regularly engaged in campus and community service. The School of Music serves hundreds of non-music-majors every semester in courses such as Exploring Music and History of Jazz. Major music ensembles, such as the University Orchestra, University Choir, and Marching Band, regularly serve the musical interests of dozens of non-music majors. Nearly all of the nearly 300 annual School of Music concerts are free and open to the public. Additionally, the School of Music provides music to countless campus events throughout the year, including graduation ceremonies, the professional functions of other colleges, and athletic events.

VII. Budget

A. Use Appendix A – Table 3A or 3B to provide projected costs and associated funding sources for Year 1 and Year 5 of program operation. In narrative form, describe all projected costs and funding sources for the proposed program(s). Data for Year 1 and Year 5 should reflect snapshots in time rather than cumulative costs.

Table 3A comprises the sum of faculty, staff salary expenses directly connected to this new program. Percentages of these expenses grow from year one to year five in accordance with anticipated enrollment growth and resulting increase in involvement by these individuals. Based on current School of Music enrollment, first-year enrollment in the new program would constitute approximately 3% of enrollment overall, and thus 3% of personnel workload commitment. By year five, the new program would constitute approximately 11% of enrollment overall, and thus 11% personnel workload commitment.

Table 3A Programmatic Expenses include the sum of equipment purchases necessary for this specific degree program: $4,000 in year one for specialized audio/video recording equipment for the computer lab, and an additional $24,000 by year four for recording equipment required for delivery of the Music Internship Ensemble course. Additionally, Table 3A Programmatic Expenses includes an anticipated allotment of undergraduate scholarship dollars (from existing endowment funds), $10,000 in year one, and $25,000 in year five.

The load equivalent of one additional faculty member will be necessary for delivery of this program by year four. This will be achieved both through partial load reallocation of a current faculty member, as reflected in Table 4, and the partial assignment of a future faculty hire to this program.

B. Use Appendix A – Table 4 to show how existing Education & General (E&G) funds will be reallocated to support the proposed program in Year 1. Describe each funding source identified in Appendix A – Table 4, and provide a justification below for the reallocation of resources. Describe the impact the reallocation of financial resources will have on existing programs, including any possible financial impact of a shift in faculty effort, reallocation of instructional resources, greater use of adjunct faculty and teaching assistants, and explain what steps will be taken to mitigate such impacts.

The Base Before Reallocation comprises School of Music expenses prior to the existence of the new degree. Programmatic Expenses comprises the sum of an average annual equipment budget. The Amount to be Reallocated represents the percentage of commitment to the new program by these personnel and programmatic expense categories. The level of commitment in year one is anticipated at 3%, relative to the overall music student body enrollment. The impact is expected to be minimal with the additional revenue generated by the new enrollment.

C. If the institution intends to operate the program through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition, as described in Board of Governors Regulation 8.002, provide a rationale and a timeline for seeking Board of Governors' approval.

☒ Not applicable to this program because the program will not operate through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition

D. Provide the expected resident and non-resident tuition rate for the proposed program for both resident and non-resident students. The tuition rates should be reported on a per credit hour basis, unless the institution has received approval for a different tuition structure. If the proposed program will operate as a continuing education program per Board of Governors Regulation 8.002, please describe how the tuition amount was calculated and how it is reflected in Appendix A – Table 3B.

As of this writing, the expected resident and non-resident tuition rates are as follows. Resident Tuition Cost, comprising the following, shall be defined as the tuition and fees charged an enrolled student who qualifies as a Florida resident as defined in BOG Regulation 7.005 and Section 1009.21 Fla. Stat.

Non-Resident Tuition Cost, comprising the following, shall be defined as the tuition and fees charged an enrolled student who does not qualify as a Florida resident as defined in BOG Regulation 7.005 and Section 1009.21 Fla. Stat.

Undergraduate Courses Charged per Student Credit Hour 2022-23: https://regulations.ufl.edu/wp-content/uploads/2022/06/3.0375-TuitionCost-6-23-22.pdf	
Resident Tuition	$105.07
Tuition Differential	$44.17
Capital Improvement Trust Fund	$6.76
Student Financial Aid	$5.25
Technology	$5.25
Non-Resident Fee	$707.21
Non-Resident Student Financial Aid	$35.36

E. Describe external resources, both financial and in-kind support, that are available to support the proposed program, and explain how this amount is reflected in Appendix A – Table 3A or 3B.

As of this writing, the pursuit of donor support specific to this program is underway.

VIII. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5 below, including but not limited to the following:

- **the total number of volumes and serials available in the discipline and related disciplines**
- **all major journals that are available to the university's students**

The Library Director must sign the additional signatures page to indicate that they have review Sections VIII.A. and VIII.B.

George A. Smathers Libraries Music Holdings (Volumes)

Library	Books	Scores
Architecture and Fine Arts Library	19,354	18,904
Other Campus Collections	4795	588
E-Texts (books and scores)	6132	686
Offsite Storage	2008	729
Total Holdings	32,380	20,907

The table above displays holdings currently on the shelves in the George A. Smathers Libraries.

The Libraries of the University of Florida form the largest information resource system in the state of Florida. The libraries hold 6.3 million print volumes, 1.5 million e-books, Over 197,000 full text print and electronic journals, and over 1100 databases. The George A. Smathers Libraries of the University of Florida, a system of six research libraries, includes libraries for humanities & social sciences, sciences, architecture & fine arts, education, health sciences and special & area studies collections. The UF Levin School of Law supports a related, but independent law library. Books, scores, periodicals, and physical media recordings related to music are located primarily in the Architecture & Fine Arts Library.

Electronic Books, journals and many key music databases relevant to this degree are available via the internet to UF students, faculty and staff. Selected databases in Music and Business may be easily accessed using curated research guides:

Music: https://guides.uflib.ufl.edu/music
Business: https://businesslibrary.uflib.ufl.edu/bestdatabases

Most databases are funded centrally. The UF libraries expend over $11 Million yearly on electronic resources. Listed below are some of the important journals, in print or electronic form, available at UF for use by students pursuing a BS in Music Business and Entrepreneurship:

Music Business
International Journal of Music Business Research
MEIEA (Music & Entertainment Industry Educators Association)
Music Business International
Music & Entertainment Industry Internship Guide

Music & Video Industry Profile
Online Music Streaming Industry

Entrepreneurship
Academy of Entrepreneurship Journal
American Journal of Entrepreneurship
Artivate: A Journal of Entrepreneurship in the Arts
Entrepreneurship and Regional Development
Entrepreneurship Education
Entrepreneurship Education and Pedagogy
Entrepreneurship Research Journal
Entrepreneurship Theory and Practice
Foundations and Trends in Entrepreneurship
Journal of Business, Entrepreneurship, and the Law
Journal of Entrepreneurship
Journal of Arts Entrepreneurship Education
Journal of Entrepreneurship Education
Journal of Entrepreneurship, Management and Innovation
Journal of Ethics and Entrepreneurship
Journal of Global Entrepreneurship Research
Journal of Innovation and Entrepreneurship
Journal of International Entrepreneurship
Journal of Small Business and Entrepreneurship
Journal of Women's Entrepreneurship and Education
International Entrepreneurship and Management Journal
International Entrepreneurship Review
International Journal of Entrepreneurship
International Journal of Entrepreneurship and Innovation
New England Journal of Entrepreneurship
Strategic Entrepreneurship Journal

Music
19th-Century Music
American Choral Review
American Music
American String Teacher
Black Music Research Journal
Choral Journal
College Music Symposium
Computer Music Journal
Contemporary Music Review
Early Music
Eighteenth-Century Music
Ethnomusicology
IASPM (International Association for the Study of Popular Music) Journal
Jazz Education in Research and Practice
Jazz Research Journal
Journal of Band Research
Journal of Film Music
Journal of Jazz Studies

Journal of Music Theory
Journal of Musicology
Journal of New Music Research
Journal of Popular Music Studies
Journal of Research in Music Education
Journal of Seventeenth-Century Music
Journal of Singing
Journal of the Acoustical Society of America
Journal of the American Musicological Society
Journal of the Association for Music & Imagery
Music and Anthropology
Music Perception
Music Performance Research
Music Theory Online
Music Theory Spectrum
Musica Judaica
Opera News
Opera Quarterly
Organised Sound
Perspectives of New Music
Popular Music
Popular Music History
The Instrumentalist
Twentieth-Century Music
Women and Music

As is evidenced by the wide variety of titles, particularly under the heading of music, nearly every musical period and many genres of music are covered by library holdings. Students coming into the BS Music Business and Entrepreneurship will have diverse resources at their fingertips to compliment and expand their musical knowledge and interests.

In addition to UF Libraries' holdings, all students, faculty, and staff may use interlibrary loan services. UF Libraries hold memberships in a number of consortia and in institutions such as the Center for Research Libraries, ensuring access to materials not held locally. A service known as "Uborrow" allows UF patrons to easily borrow materials from any other Florida state university or college library. Library patrons initiate unmediated requests via a union catalog, and materials are delivered to Gainesville within a few days. Uborrow access is often faster, and can have a longer circulation period, than a traditional interlibrary loan.

With funds allocated through the Provost and the UF budgeting process, the library materials budget is determined by the Dean of Libraries in consultation with the Associate Dean for Scholarly Resources & Research Services, a library collections committee, and subject specialist librarians. The subject specialist for music, with input from School of Music faculty, determines acquisition priorities for the year. Standing subscriptions to journal literature and databases make up the majority of purchasing. Discretionary funds for the purchase of individual books, scores and recordings total $19,000 for the 2022-23 fiscal year.

School of Music faculty may use the library's course reserves system to place print

materials on reserve for class use, as well as to provide easily accessible links to electronic resources. Databases containing scholarly journals and reference materials are used by music researchers at all levels.

Fall semester 2022 there are 7 courses utilizing course reserves: Special Topics, Composition Skills 1, Music Education, Music History 2, Music and Audience, and Latin American Music.

The music librarian meets with students each semester as part of the required music research and bibliography course and with other class groups as requested by faculty. A demonstration/lecture serves as an introduction to scholarly research sources and services offered by the Libraries. To support their work on projects, papers, and research for performance, the librarian consults individually with students to plan literature reviews, to offer targeted advice on resource selection and to provide individualized instruction for using the research collections, including databases and other electronic source material. School of Music faculty may request specialized research instruction related to courses and specific assignments. The librarian may partner with other library faculty to share expertise in cognate areas (such as business) when needed.

Online research guides for all UF disciplines and many specific topics are available from the library website https://uflib.ufl.edu/. Many online tutorials for specific databases are also available. Additionally, the UF Libraries host workshops, lectures, and events throughout the year.

B. Discuss any additional library resources that are needed to implement and/or sustain the program through Year 5. Describe how those costs are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional library resources are needed to implement or sustain the proposed program.

C. Describe any specialized equipment and space currently available to implement and/or sustain the proposed program through Year 5.

Current classroom and performance space within the School of Music facilities will be utilized in the delivery of this program. Current music technology equipment, including the 24-station computer lab, electronic piano lab, and two electronic music studios, will be utilized in the delivery of this program.

D. Describe any additional specialized equipment or space that will be needed to implement and/or sustain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Appendix A – Table 3A or 3B. Costs for new construction should be provided in response to Section X.E. below.

☐ Not applicable to this program because no new I&R costs are needed to implement or sustain the program through Year 5

No new space is required for delivery of this program. Specialized audio/video camera equipment, at a cost of $4,000, is necessary to better equip the existing computer lab in advance of the 2024 start date. By the start of year four, three on-site

recording kits, at a total cost of $24,000, will be necessary to deliver the Music Internship Ensemble course. These costs are reflected in Table 3A, Programmatic Expenses, years one and five.

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Appendix A – Table 3A or 3B includes only I&R costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs, in particular, would necessitate increased costs in non-I&R activities.

☒ Not applicable to this program because no new capital expenditures are needed to implement or sustain the program through Year 5.

F. Describe any additional special categories of resources needed to operate the proposed program through Year 5, such as access to proprietary research facilities, specialized services, or extended travel, and explain how those projected costs of special resources are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional special categories of resources are needed to implement or sustain the program through Year 5.

G. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5, and explain how those are reflected in Appendix A – Table 3A or 3B.

☐ Not applicable to this program because no fellowships, scholarships and/or graduate assistantships will be allocated to the proposed program through Year 5.

It is anticipated that $10,000 in additional scholarship dollars (from existing endowment funds) will be allocated to new year-one students. By year five, it is anticipated that $25,000 in additional scholarship dollars (from existing endowment funds) will be allocated to students across this program. These funds are represented, along with the costs of necessary equipment purchases, (VIII.D. above) within Table 3A, Programmatic Expenses.

There are no specific plans for new or reallocated funding for graduate assistantships in support of this degree. Should new GA funding become available, a decision would be made at that time relative to GA needs program-wide. Graduate assistantship funding is currently allocated, in part, to support courses in Music Business and Entrepreneurship. Those funds will remain so allocated upon the arrival of the new degree.

IX. Required Appendices

The appendices listed in tables 1 & 2 below are required for all proposed degree programs except where specifically noted. Institutions should check the appropriate box to indicate if a particular appendix is included to ensure all program-specific requirements are met. Institutions may provide additional appendices to supplement the information provided in the proposal and list them in Table 4 below.

Table 1. Required Appendices by Degree Level

Appendix	Appendix Title	Supplemental Instructions	Included? Yes/No	Required for Degree Program Level		
				Bachelors	Masters/ Specialist	Doctoral/ Professional
A	Tables 1-4		Yes	X		
B	Consultant's Report and Institutional Response		No			
C	Academic Learning Compacts	Include a copy of the approved or proposed Academic Learning Compacts for the program	Yes	X		
D	Letters of Support or MOU from Other Academic Units	Required only for programs offered in collaboration with multiple academic units within the institution	No	X	X	X
E	Faculty Curriculum Vitae		Yes	X	X	X
F (and F.1)	Common Prerequisite Request Form	This form should also be emailed directly to the BOG Director of Articulation prior to submitting the program proposal to the Board office for review.	Yes	X		
G	Request for Exemption to the 120 Credit Hour Requirement	Required only for baccalaureate degree programs seeking approval to exceed the 120 credit hour requirement	No	X		
H	Request for Limited Access Status	Required only for baccalaureate degree programs seeking approval for limited access status	Yes	X		

Table 2. Additional Appendices

Appendix	Appendix Title	Description
I	Florida Bureau of Economic Opportunity Forecast, 2022-30	Spreadsheet indicating job growth and salaries
J	US Bureau of Labor Statistics Occupational Employment and Wage Statistics	Spreadsheet indicating job growth and salaries
K	Recent Job Listings	Sampling of professional positions for which graduates would be qualified
L	Survey and Results	Survey sent to students, alumni, industry professionals
M	Curriculum At A Glance	8-semester plan
N	Audition Assessment Form	Assessment of applicants

Additional Required Signatures

I confirm that I have reviewed and approved Need and Demand Section III.F. of this proposal.

Melissa Fleury — 12/15/22

Signature of Equal Opportunity Officer — **Date**

I confirm that I have reviewed and approved Non-Faculty Resources Section VIII.A. and VIII.B. of this proposal.

Signature of Library Dean/Director — **Date** 1/4/2023

STATE UNIVERSITY SYSTEM OF FLORIDA

Board of Governors, State University System of Florida

REQUEST TO OFFER A NEW DEGREE PROGRAM

In Accordance with BOG Regulation 8.011

(Please do not revise this proposal format without prior approval from Board staff)

University of Florida Institution Submitting Proposal	Fall 2024 Proposed Implementation Term
College of Liberal Arts and Sciences Name of College(s) or School(s)	Department of Geography Name of Department(s)/Division(s)
Meteorology Academic Specialty or Field	Bachelor of Science in Meteorology Complete Name of Degree
40.0404 Proposed CIP Code (2020 CIP)	

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees	President's Signature 8-31-23 Date
Board of Trustees Chair's Signature Date	Provost's Signature 8/29/23 Date

PROJECTED ENROLLMENTS AND PROGRAM COSTS

Provide headcount (HC) and full-time equivalent (FTE) student estimates for Years 1 through 5. HC and FTE estimates should be identical to those in Appendix A – Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Appendix A – Table 3A or 3B. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 by dividing total E&G by FTE.

Implementation Timeframe	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary/ Philanthropy Funds	Total Cost
Year 1	10	7.5	$54,784	$410,881	$0	$8,572	$419,454
Year 2	20	15					
Year 3	28	22.5					
Year 4	38	31.5					
Year 5	39	33.75	$13,838	$467,051	$6000	$9,648	$482,699

Additional Required Signatures

I confirm that I have reviewed and approved Need and Demand Section III.F. of this proposal

08/01/2022

Signature of Equal Opportunity Officer **Date**

I confirm that I have reviewed and approved Non-Faculty Resources Section VIII.A. and VIII.B. of this proposal.

7/27/2022

Signature of Library Dean/Director **Date**

Introduction

I. Program Description and Relationship to System-Level Goals

A. Describe within a few paragraphs the proposed program under consideration, and its overall purpose, including:

- **degree level(s)**
- **majors, concentrations, tracks, specializations, or areas of emphasis**
- **total number of credit hours**
- **possible career outcomes for each major (provide additional details on meeting workforce need in Section III)**

Housed within the UF Department of Geography, we are proposing a Bachelor of Science (B.S.) in Meteorology. This major will have specializations in Applied Meteorology, Hazards, and Global Change; General Atmospheric Science; and Broadcast Meteorology.

1) B.S. Meteorology, Applied Meteorology, Hazards, and Global Change: This specialization prepares students for a range of interdisciplinary careers centered on the ever-evolving challenges associated with weather and climate systems. In addition to a physical and mathematical understanding of meteorology and climatology, students gain competencies on the impacts of meteorology, hydrometeorology, sea level rise, and other critical areas on society and individuals. These competencies are facilitated through using practical geospatial analysis, geographic information systems, machine learning and artificial intelligence, and multi-disciplinary thinking to apply weather and climate analysis and prediction to related workforce needs. Sectors as diverse as agriculture, business, disaster risk management, emergency management, energy distribution, engineering, national security, political science, tourism, transportation, and water resource management are in search for employees with a formal weather and climate background.

2) B.S. Meteorology, General Atmospheric Science: This specialization prepares students for operational, research, and academic careers centered on an advanced physical and mathematical understanding of Earth's atmosphere. This specialization fulfills long-standing requirements for federal positions in meteorology, including operational forecasting positions in the National Weather Service, National Oceanographic and Atmospheric Administration, and related offices. It also provides the advanced material to pursue careers in research laboratories, academia, and private industry.

3) B.S. Meteorology, Broadcast Meteorology: This specialization prepares students for careers in environmental journalism and broadcast meteorology positions in radio and television. Students gain an advanced physical and mathematical understanding of meteorology while also developing skillsets in communication and mass media broadcasting. It also provides training to pursue careers in sales, marketing, communications, policy advising, and public information officers in private industry.

All specialization will require 120 credit hours to complete the program.

The evolving weather, water, and climate enterprise requires the next generation of atmospheric scientists to engage in broader geographic training, building skills that crosscut from meteorology to applied climate science, geospatial analysis, hydrology, business, economics, communications, and artificial intelligence.

Advances in computer models have vastly improved the accuracy of forecasts and allowed atmospheric scientists to tailor forecasts to specific purposes. This should increase the need for atmospheric scientists working in private industry as businesses demand more specialized weather information to maximize operational efficiency. According to the 2020 Bureau of Labor Statistics report, Florida is the fourth highest employer of atmospheric scientists in the nation, behind California, Maryland, and Texas. The report similarly anticipates most atmospheric sciences opportunities will be in the private sector, including industry, non-profit, and broadcast.

In response to this trend, the program will recruit and prepare students for careers that apply weather and climate knowledge and skills to the diversity of fields that now require their expertise. These include agriculture, business and economics, disaster risk management, emergency management, energy creation and distribution, engineering, national security, political science and policy development, tourism, transportation, and water resource management.

B. If the proposed program qualifies as a Program of Strategic Emphasis, as described in the Florida Board of Governors 2025 System Strategic Plan, please indicate the category.

- **Critical Workforce**
  - ☐ Education
  - ☐ Health
  - ☐ Gap Analysis
- **Economic Development**
  - ☐ Global Competitiveness
  - ☒ Science, Technology, Engineering, and Math (STEM)

☐ **Does not qualify as a Program of Strategic Emphasis.**

II. Strategic Plan Alignment, Projected Benefits, and Institutional Mission and Strength

A. Describe how the proposed program directly or indirectly supports the following:

- **System strategic planning goals (see link to the 2025 System Strategic Plan on the New Program Proposals & Resources webpage)**
- **the institution's mission**
- **the institution's strategic plan**

The mission of the State University System (SUS) 2025 Systemic Strategic Plan centers around enhancing the state and its assets "by providing high-quality academic degree programs to meet state economic and workforce needs," and by conducting "cutting-edge research to address global problems." Similarly, the mission of the University of Florida is to "enable our students to lead and influence the next generation and beyond for economic, cultural and societal benefit." Florida's business success and public safety are becoming increasingly dependent on weather and climate understanding and prediction. Our proposed degree, with its specializations, supports the SUS mission by developing both private and public sector knowledge and skills necessary for success in the Florida and global marketplace, and providing qualified graduates to help employers prosper and grow.

SUS Goal: Strengthen Quality and Reputation of Academic Programs and Universities

The development of the proposed meteorology degree program will elevate UF into one of the top public undergraduate institutions for meteorology education in the state. By providing a premier undergraduate education tailored to the emerging job market, the program aims to develop highly qualified leaders who will address critical state and global challenges. The major is in high demand, as demonstrated by interest from current and potential students. Therefore, the proposed program will help the university attract a greater proportion of freshmen in the top 10% of their graduating high school class, contributing to the university's national ranking.

SUS Goal: Increase the number of graduates with degrees in Programs of Strategic Emphasis
SUS Goal: Increase the number of graduates within STEM fields
SUS and UF Goal: Increase the educational attainment levels of its citizens

To accomplish the SUS mission, the SUS 2025 Systemic Strategic Plan lays out goals to increase the educational attainment levels of its citizens. The SUS specifically recognizes the importance of STEM fields to the state, which are recognized as Programs of Strategic Emphasis. The creation of this degree program directly supports these goals by providing a new STEM degree offering. External students have already reported an attraction to coming to UF specifically because of the prospect of a meteorology major.

SUS and UF Goal: Increase the median wages of bachelor's graduates employed full-time one year after graduation

Similarly, both the SUS and UF desire to benefit Florida's citizens through goals to increase the median salary of bachelor's graduates who enter employment. In direct support of this

goal, entry level salaries of most careers available to the program's graduates are higher than the current median entry level salary of all graduates.

SUS Goal: Increase community and business engagement
SUS Goal: Increase community and business workforce
SUS Goal: Align university outputs with state economic and workforce needs.
UF Mission: Enable our students to lead and influence the next generation and beyond for economic, cultural and societal benefit.

The SUS 2025 Systemic Strategic Plan also includes goals to strengthen the commitment to business engagement and increase the workforce. Both the SUS and UF missions are to benefit state economic, workforce, and societal needs. The degree program directly supports this goal by including specializations that preparing students for every aspect of the weather and climate enterprise (public, private, and research) and support all industries impacted by the environment.

B. Describe how the proposed program specifically relates to existing institutional strengths. This can include:

- **existing related academic programs**
- **existing programs of strategic emphasis**
- **institutes and centers**
- **other strengths of the institution**

The proposed program will be administered through the UF College of Liberal Arts and Sciences (CLAS) and leverage existing faculty, courses, and resources of the Department of Geography. The program has a strong potential to interact with the Florida Climate Institute (FCI) with its focus on climate change and adaptation in the state of Florida, the Land Use and Environmental Change Institute (LUECI) with its focus on linking human influences to global environmental change and the resulting cultural consequences, the Water Institute with their projects relating weather and climate impacts on water resources, the College of Engineering with their projects on hurricane impacts to structures, and the College of Journalism and Communications with their program training students for broadcast meteorology. The focus on private sector careers creates a potential to generate further interactions with the Business, Engineering, and Agriculture and Life Sciences colleges.

C. Provide the date the pre-proposal was presented to the Council of Academic Vice Presidents Academic Program Coordination (CAVP ACG). Specify whether any concerns were raised, and, if so, provide a narrative explaining how each concern has been or will be addressed.

The pre-proposal was presented to the SUS Council of Academic Vice Presidents Academic Program Coordination review group on September 2, 2021. Florida State University (FSU) raised a concern about the proposed degree being in direct competition with their established meteorology program. While the CIP codes differ, FSU's senior faculty find the degree very similar to theirs.

Further communications with FSU have resulted in their acceptance of the proposed program. The proposed program has a heavy focus on the B.S. Meteorology, Applied Meteorology, Hazards, and Global Change specialization that allow students to graduate with skills specifically tailored for the private sector. This is in addition to specializations focusing on federal, academic, and broadcast sectors. In response to recommendations from FSU, some revisions have been made to increase the competitiveness of our students for graduate school and job applications.

D. In the table below, provide a detailed overview and narrative of the institutional planning and approval process leading up to the submission of this proposal to the Board office. Include a chronology of all activities, providing the names and positions of both university personnel and external individuals who participated in these activities.

- **If the proposed program is a bachelor's level, provide the date the program was entered into the APPRiSe system, and, if applicable, provide narrative responding to any comments received from APPRiSe.**
- **If the proposed program is a doctoral-level program, provide the date(s) of the external consultant's review in the planning table. Include the external consultant's report and the institution's responses to the report as Appendix B.**

Planning Process

Date	Participants	Planning Activity Description
2007	Dr. Matyas and Dr. Waylen from Geography Dept (GEOG), Dr. John Wright from College of Journalism and Communication (CJC)	Meeting to outline a B.S. Meteorology degree, also benefitting existing broadcast meteorology students.
2008	GEOG, College of Liberal Arts and Sciences (CLAS)	Geography's initial request for a faculty hire to help develop a B.S. Meteorology degree.
June 2011	CJC, Jeff Huffman	CJC hires Broadcast Meteorologist to coordinate classes for broadcast meteorology students.
2012	Dr. Matyas, GEOG	Certificate of Meteorology and Climatology developed.
2015	Dr. Binford, Dr. Matyas, CJC	Continue discussing meteorology major, minor, certificate possibilities.
2016	Dr. Southworth, Dr. Matyas, CJC	Continue discussing meteorology major, minor, certificate possibilities.
August 2017	CJC, Cyndee O'Quinn	CJC hires Multimedia Meteorologist to teach a class and train broadcast meteorology students.

Date	Participants	Planning Activity Description
08-15-2018	CLAS, GEOG	Geography department hire faculty, Dr. Mullens, to help develop a B.S. Meteorology degree.
08-15-2019	CLAS, GEOG	Geography department hire instructional professor, Mr. Mullens, to help develop a B.S. Meteorology degree.
02-17-2020	Dr. Gater, Dr. Matyas, Mr. Mullens	First meeting with Dr. Gater to discuss pre-proposal and proposal process.
04-28-2020	Dr. Gater, Dr. Hass, Dr. Southworth, Dr. Matyas, Dr. Mullens, Mr. Mullens	Provost pulled the Meteorology program from the BOG new program accountability plan.
01-20-2021	Dr. Gater, Dr. Hass, Dr. Matyas, Dr. Mullens, Mr. Mullens	Provost includes the BS in Meteorology back on the BOG Accountability Report.
08-15-2021		Geography department hired Dr. Wen and Dr. Keellings.
11-04-2021	Ted Spiker, Dr. Matyas, Dr. Mullens, Mr. Mullens, Mr. Huffman, Mr. Wright	Met with CJC to discuss broadcast specialization.
09-02-2021	Board of Governors Council of Academic Vice Presidents Work Group	Pre-proposal approved by BOG CAVP.
02-10-2022	Dr. Gater, Dr. Matyas, Dr. Mullens, Mr. Mullens, Dr. Wen	Second meeting with Dr. Gater to discuss the full proposal.
03-15-2022	Mr. Mullens, workshop organizers and participants.	Mind the Gap workshop began, providing industry guidance to the university curriculum.
04-19-2022	Mr. Mullens, Mr. Madden	Third meeting with Dr. Gater to discuss the full proposal.
08-04-2022	Dr. Matyas, Dr. Mullens, Mr. Mullens, Dr. Wen	Submitted proposal for approval.

E. Provide a timetable of key events necessary for the implementation of the proposed program following approval of the program by the Board office or the Board of Governors, as appropriate, and the program has been added to the State University System Academic Degree Program Inventory.

Events Leading to Implementation

Date	Implementation Activity
Spring 2023	Submission to University Curriculum Committee
Fall 2023	Submission to Faculty Senate, UF SACS Director
Fall 2023	Submission to Academic Affairs
Spring 2024	Submission to Board of Trustees and Board of Governors
Fall 2024	First enrollment

Institutional and State Level Accountability

III. Need and Demand

A. Describe the workforce need for the proposed program. The response should, at a minimum, include the following:

- **current state workforce data as provided by Florida's Department of Economic Opportunity**
- **current national workforce data as provided by the U.S. Department of Labor's Bureau of Labor Statistics**
- **requests for the proposed program from agencies or industries in your service area**
- **any specific needs for research and service that the program would fulfill**

According to the **2020 Bureau of Labor Statistics** (BLS) report, Florida is the fourth highest employer of atmospheric scientists in the nation, behind California, Maryland, and Texas. Around 10,000 people are employed in the atmospheric sciences, with many more in applied environmental sciences (~90K) and the broadcast field. Employers within the state of Florida that may hire graduates of this program include Federal (NOAA, National Weather Service, National Hurricane Center, NASA), State (government, state climate office, emergency management), Private sector (The Weather Company, Risk management firms, insurance and catastrophe modeling, forensic meteorology, airlines), Non-profit (Nature conservancy, regional or local environmental/conservation organizations), Broadcast (including large markets in Tampa, Jacksonville, Miami and Orlando), and Academic (Florida, Florida State, Miami, and other colleges with earth science programs, NOAA Sea Grant) sectors.

The **BLS report** estimates atmospheric sciences (which includes meteorology) is anticipated to grow about as fast as the national average with most opportunities being in the private sector, including industry, non-profit, and broadcast. Advances in computer models have vastly improved the accuracy of forecasts and allowed atmospheric scientists to tailor forecasts to specific purposes. This need for atmospheric scientists working in private industry should increase as businesses continue seeking market efficiencies through specialized weather information. However, because of the diversity of jobs that meteorology graduates will be equipped to tackle, it is difficult to pinpoint specific job growth statistics.

Data from **Florida's Department of Economic Opportunity** (DEO) tell a similar story. The professional and technical services industry sector, which includes computer programming, environmental consulting, and scientific research and development, is collectively projected over this decade (2021-2029) to provide the 2nd most new jobs of all industries, representing the 12th fastest growing industry by percent change. Employers in this sector are increasingly recognizing that software developers, web developers, and data scientists with meteorological and climatological training are vital to profitability and customer experience. Software developers are projected to represent the 8th most new Florida jobs and the 8th fastest growing occupation. Web developers are projected to represent the 64th fastest growing Florida occupation. These jobs are also attractive to potential employees, with 2019 entry salaries averaging $43,000 for web developers, $48,000 for computer programmers, and $63,000 for software developers. All of these are at or above the 2019 State University

System goal for the median wage of bachelor's graduates employed one year after graduation.

Data from Florida's DEO focusing on sectors show:

- Traditional meteorological roles will continue to be in demand. Atmospheric and space scientist jobs are projected to grow faster than the national average, reflecting the service operational forecasting continues to provide. Forecasting services aid an increasing number of industries, with the most prominent being transportation, sports and entertainment, utility, and agriculture. Transportation via air, rail, water, and truck are all growing industries, reflecting the increasingly optimized just-in-time nature of the global supply chain. In particular, support activities for transportation (9th fastest), passenger transit (10th fastest) and water transportation (14th fastest) are projected to be three of the top twenty fastest growing Florida industries. Support activities for transportation are projected to provide the 20th most new Florida jobs.
- Public safety and competitive advantage are increasingly vital components to limiting liability and ensuring a good customer experience for the performing arts and spectator sports industry, which is projected to be the 4th fastest growing Florida industry.
- Utilities continue to invest in solar and wind electric power generation, where weather-related forecasts of renewable power generation are vital to ensure a stable power supply and profitability.
- The agricultural sector is increasingly relying on seasonal projections to influence their planting and harvesting decisions.
- While overall journalist and reporter jobs growth is projected to be slower than the national average, occupations in related communication and technical writing are growing faster than average.
- Finally, while university education jobs require advanced degrees unlike most of the occupations above, the educational services industry is projected to be the 16th fastest growing industry, with the 10th most new jobs over this decade.

B. Provide and describe data that support student demand for the proposed program. Include questions asked, results, and other communications with prospective students.

Surveys of students taking weather-related courses were conducted in three semesters: Fall 2019, Spring 2020, and Fall 2021. Of the 117 students surveyed, 22 indicated they would have been very interested in pursuing a bachelor's degree in meteorology had the program existed. Another 19 students indicated they would have at least looked into the program.

- GEO2242 Extreme Weather is a popular Physical Science general education option for students. In Fall 2019, Extreme Weather students were asked, "Would you have considered majoring in Meteorology at UF (if it was offered now or in near future)?"
  - Yes – 6
  - Maybe – 5
  - No – 25

- MET3503 Weather and Forecasting is a popular course in the Meteorology and Climatology certificate program. In Fall 2019, Weather and Forecasting students were asked, "Would you be interested in the next meteorology course that would come after this?"
    - Yes, I wish UF offered a meteorology major. – 4
    - I'm pursuing the certificate, so yes. – 9
    - Not pursuing the certificate, but yes. – 0
    - There's a certificate? Maybe! – 0
    - Solid maybe. – 1
    - I'm graduating. So, no. – 0
    - Not graduating. But no. – 0

- In Spring 2020, students in GEO2242 Extreme Weather and MET3503 Weather and Forecasting were asked, "If UF had a meteorology major, would you have declared that major instead?"
    - Yes. Definitely – 4
    - I would have heavily considered it. – 13
    - I would have looked into it, but probably not. – 20
    - No way. – 14

- MET1010 Introduction to Weather and Climate is a common Physical Science general education option for students. Both MET1010 and MET4750 Spatial Analysis of Atmospheric Data using GIS are in the Meteorology and Climatology certificate program. In Fall 2021, students in Weather and Forecasting, Spatial Analysis of Atmospheric Data using GIS, and Introduction to Weather and Climate were asked, "If UF had a meteorology major, would you have declared that major instead?"
    - Yes. Definitely – 6
    - I would have heavily considered it. – 5
    - I would have looked into it, but probably not – 2
    - No way. – 0
    - [Didn't answer – 1]

In Spring 2021, preliminary information about this potential meteorology program were posted on the department webpage but were not publicly announced. Since that time, 33 emails have been received from prospective students inquiring about the program. This includes three students over Spring and Summer 2021, eight students in Fall 2021, seven students in Spring 2022, eight students in Summer 2022, five students in Fall 2022, and two students so far in Spring 2023.

The course surveys and unsolicited emails indicate a combined interest of approximately 15 students per academic year.

From 2017 to 2022, the Meteorology and Climatology Certificate has averaged an enrollment of 30 students across a diverse range of majors. The greatest enrollment has been since 2020, with enrollment growing to an average of 36 students. Maintaining this enrollment has required 10-12 new enrollments every three years, though these students likely overlap with those surveyed since 2019.

In Spring 2022, the American Meteorological Society student organization was revived at UF. In three semesters, 60 students have requested membership in the organization and the majority of the organization's events have 15 participants.

C. Complete Appendix A – Table 1 (1-A for undergraduate and 1-B for graduate) with projected student headcount (HC) and full-time equivalents (FTE).

- **Undergraduate FTE must be calculated based on 30 credit hours per year**
- **Graduate FTE must be calculated based on 24 credit hours per year**

In the space below, provide an explanation for the enrollment projections. If students within the institution are expected to change academic programs to enroll in the proposed program, describe the anticipated enrollment shifts and impact on enrollment in other programs.

Please refer to Table 1, Appendix A for the undergraduate projected students HC and FTE. These numbers are based on past surveys of students enrolled in the Meteorology and Climatology certificate program and unsolicited external emails. Some growth is envisioned as the program is advertised to potential incoming students. Year 1 is expected to see the most transfers from other majors within UF. The number of first time in college (FTIC) students should steadily increase year over year as the degree becomes more established. Occasional transfers from the Florida College System and other Florida colleges and universities may occur but are expected to be minimal. In year 5, graduating students should result in enrollment levelling off around 40 students. No graduate students are expected to enroll in this bachelor's program.

D. Describe the anticipated benefit of the proposed program to the university, local community, and the state. Benefits of the program should be described both quantitatively and qualitatively.

Though UF helped initiate a number of institutes applying meteorological and climatological information, UF currently lacks a bachelor's program training students in the fundamentals of these fields. The University of Florida will benefit by adding students who are gaining expertise in meteorology and climatology to the work of the Florida Climate Institute, Land Use and Environmental Change Institute, Water Institute, College of Engineering, and College of Journalism and Communications who are applying this knowledge to address the needs of Florida, the nation, and the world. The State of Florida will benefit from graduates who are able to compete for and succeed in the diverse set of industries requiring meteorological and climatological expertise.

E. If other public or private institutions in Florida have similar programs that exist at the four- or six-digit CIP Code or in other CIP Codes where 60 percent of the coursework is comparable, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with appropriate personnel (e.g., department chairs, program coordinators, deans) at those institutions regarding the potential impact on their enrollment and opportunities for possible collaboration in the areas of instruction and research.

The proposed Meteorology degree program is similar to one other program in the SUS: Florida State University (CIP 40.0401). Another related program within the SUS is Florida International University. Through the 40.0601 CIP code for Geology/Earth Science, FIU offers a BS in Geosciences with a specialization in Atmospheric Sciences. Three private institutions offer similar programs (CIP 40.0401 or 40.0404): University of Miami, Florida Institute of Technology, and Embry-Riddle Aeronautical University.

Florida International University, Miami, Florida
Florida State University, Tallahassee, Florida
Embry-Riddle Aeronautical University, Daytona Beach, Florida
Florida Institute of Technology, Melbourne, Florida
University of Miami, Coral Gables, FL

Communications with Florida State University did not identify any potential impact on their enrollment. The projected enrollment of the proposed program is a third of recent enrollment at FSU.

Communications with Florida International University did not identify any potential impact on their enrollment, specifically citing a high demand for graduates and the distinct demographics of the populations served. Opportunities for collaboration include fostering mutual relationships with entities within Florida including the National Hurricane Center, the NOAA Atlantic Oceanographic and Meteorological Laboratory (AOML) Hurricane Research Division, and the NWS forecast offices. Further collaboration is possible through national institutions including NOAA labs in Boulder, CO and Norman, OK.

No potential impacts on enrollment were identified in communications with Embry-Riddle Aeronautical University, Florida Institute of Technology, or University of Miami.

F. Describe the process for the recruitment and retention of a diverse student body in the proposed program. If the proposed program substantially duplicates a program at FAMU or FIU, provide a letter of support from the impacted institution(s) addressing how the program will impact the institution's ability to attract students of races different from that which is predominant on the FAMU or FIU campus. The institution's Equal Opportunity Officer shall review this Section of the proposal, sign, and date the additional signatures page to indicate that all requirements of this section have been completed.

The Department of Geography are committed to educating a diverse student body and aspires to allow everyone from all walks of life to learn, work, teach, and grow and reflect the breadth of thought essential for preeminence. The program will be fully availability to the entire diverse student body at UF. The department has an active Diversity, Equity, and Inclusion (DEI) committee and a dedicated representative to the CLAS Diversity and Inclusion Steering Committee. The department DEI committee is actively involved in efforts to recruit first year students into the program in a manner that supports a diverse undergraduate student body.

Over the last five years, the ongoing Certificate of Meteorology and Climatology has attracted female participation reflective of the UF student population. Both the rate of female students and the rates of black, African American, and Hispanic students outpace participation in the American Meteorological Society, the predominant professional organization for the field.

Although the proposed program is similar to an existing program at FIU, as detailed in section 3E, FIU does not anticipate any impacts to their recruitment. Please see their letter of support in Appendix I.

IV. Curriculum

A. Describe all admission standards and all graduation requirements for the program. Hyperlinks to institutional websites may be used to supplement the information provided in this subsection; however, these links may not serve as a standalone response. For graduation requirements, please describe any additional requirements that do not appear in the program of study (e.g., milestones, academic engagement, publication requirements).

The proposed Meteorology program will follow the normal admission standards for UF. Students who would like to enroll as a freshman must have graduated with a cumulative C grade point average from a regionally accredited or state-approved secondary school or the equivalent (G.E.D., etc.) having taken four years of english, four years of mathematics, three years of natural sciences, three years of social sciences, and two years of a foreign language. Further details for freshman applicants can be found at the following website:

https://admissions.ufl.edu/apply/freshman/requirements

Students who would like to transfer into the program must have completed an Associates of Arts degree from a Florida public institution or at least 60 transferable semester credit hours from a regionally accredited institution with a minimum 2.0 overall GPA from the last attended institution. The student must have completed all prerequisite classes for the program prior to enrollment. Further details for transfer applicants can be found at the following website:

https://admissions.ufl.edu/apply/transfer/eligibility

The proposed degree will adhere to the degree requirements of the UF College of Liberal Arts and Sciences (CLAS). To graduate, all CLAS students must satisfactorily complete a minimum of 120 acceptable credits for the degree with a minimum overall grade point average of C (2.0). The last 30 credits applied to the degree must be completed in residence at the University of Florida. Within the 120 credits, students must complete a general education program, the writing requirement, the summer term enrollment requirement, and the Civic Literacy requirement. Students must also complete a defined distribution of courses in addition to the general education program, assuring all graduating students have gained proficiencies in subjects of composition, mathematical sciences, humanities, social and behavioral sciences, physical science, biological science, and a natural science laboratory. Degree requirements specific to the proposed program are detailed in the Academic Learning Compact, found in Appendix C. Full details of the degree requirements can be found at the following website:

https://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/#degreerequirementstext

B. Describe the specific expected student learning outcomes associated with the proposed program. If the proposed program is a baccalaureate degree, include a hyperlink to the published Academic Learning Compact and the document itself as Appendix C.

A hyperlink to the Academic Learning Compacts will not exist until after the degree is approved, but can be found in Appendix C.

Student Learning Outcomes (SLOs):

Content: Identify, describe, and explain the basic terminology, concepts, and theories that atmospheric and climatological forces across time and space scales.

Critical Thinking: Analyze and interpret weather and climate data and apply the interpretation toward solving real-world problems.

Communication: Clearly and objectively communicate weather and climate information in oral and/or written forms.

C. If the proposed program is an AS-to-BS capstone, provide evidence that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as outlined in State Board of Education Rule 6A-10.024. Additionally, please list the prerequisites, if any, and identify the specific AS degrees that may transfer into the proposed program.

☒ **Not applicable to this program because it is not an AS-to-BS Capstone.**

D. Describe the curricular framework for the proposed program, including the following information where applicable:

- **total numbers of semester credit hours for the degree**
- **number of credit hours for each course**
- **required courses, restricted electives, and unrestricted electives**
- **a sequenced course of study for all majors, concentrations, tracks, or areas of emphasis**

The proposed degree program requires 120 total credit hours. The B.S. Meteorology, Applied Meteorology, Hazards, and Global Change specialization requires 36-38 credits of coursework in the major plus 19 credits of related coursework. The B.S. Meteorology, General Atmospheric Sciences specialization requires 46-48 credits of coursework in the major plus 30 credits of related coursework. The B.S. Meteorology, Broadcast Meteorology specialization requires 52-54 credits of coursework in the major plus 27 credits of related coursework. The curriculum provides the core scientific and quantitative skills necessary for success upon graduation. Lower-division courses build a strong foundation in basic sciences and math while upper-division courses provide opportunity for specialization.

Sequenced course of study for the B.S. Meteorology, Applied Meteorology, Hazards, and Global Change specialization in the proposed degree program:

Semester One	Credits
MET 1010 Introduction to Weather and Climate (**Critical Tracking**; Gen Ed Physical Sciences)	3

CHM 2045 & 2045L General Chemistry 1 and General Chemistry 1 Laboratory (**Critical Tracking**; State Core Gen Ed Physical Sciences)[1]		4
MAC 2311 Analytic Geometry and Calculus 1 (**Critical Tracking**; State Core Gen Ed Mathematics)		4
State Core Gen Ed Composition; Writing Requirement		3
	Credits	14

[1] Natural science laboratory: A one-credit science lab with a minimum grade of C is required. Students can elect a laboratory course that is approved for the general education physical or biological sciences requirement or any psychology laboratory. (Most laboratory courses cannot be taken without prerequisite or corequisite courses.)

Semester Two

PHY 2048 & 2048L Physics with Calculus 1 and Laboratory for Physics with Calculus 1 (**Critical Tracking**)		4
MAC 2312 Analytic Geometry and Calculus 2 (**Critical Tracking**, Gen Ed Mathematics)		4
GEO 3250 Climatology (Gen Ed Physical Sciences)		3
Quest 1 (Gen Ed Humanities)		3
	Credits	14

Semester Three

MET 3503 Weather and Forecasting		3
Gen Ed Biological Sciences[2]		3
Gen Ed Social and Behavioral Sciences[2]		3
Foreign language		5
Programming course		3
	Credits	17

[2] One general education option taken this term must be a Quest 2 course.

Semester Four

STA 2023 Introduction to Statistics 1 (Gen Ed Mathematics)		3
State Core Gen Ed Social and Behavioral Sciences		3
Foreign language		5
Programming course		3
Atmospheric Science Elective		3
	Credits	17

Semester Five

MET 4500C Synoptic Meteorology		4
MET 4410 Radar and Satellite Meteorology		3

Gen Ed Composition: Writing requirement		3
Elective (3000 level or above, not in major)		3
Societal Applications course		3
	Credits	16

Semester Six

State Core Gen Ed Humanities		3
Elective (3000 level or above, not in major)		3
Elective (3000 level or above, not in major)		3
Societal Applications course		3
Internship or MET4911 (Recommended)		1
	Credits	13

Semester Seven

MET 4230 Thermodynamics of the Atmosphere		3
MET 4524 Weather Briefings		1
Gen Ed Humanities		3
Elective (3000 level or above, not in major)		3
Societal Applications course		3
Atmospheric Science elective		3
	Credits	16

Semester Eight

MET 4950 Capstone Course (**Critical Tracking**)		1
Gen Ed Biological Sciences		3
Gen Ed Social and Behavioral Sciences		3
Elective (3000 level or above, not in major)		3
Societal Applications course		3
	Credits	13
	Total Credits	120

Sequenced course of study for the B.S. Meteorology, General Atmospheric Science specialization in the proposed degree program:

Semester One	**Credits**
MET 1010 Introduction to Weather and Climate (**Critical Tracking**; Gen Ed Physical Sciences)	3
CHM 2045 & 2045L General Chemistry 1 and General Chemistry 1 Laboratory (**Critical Tracking**; State Core Gen Ed Physical Sciences)[1]	4

MAC 2311 Analytic Geometry and Calculus 1 (**Critical Tracking**; State Core Gen Ed Mathematics)		4
State Core Gen Ed Composition; Writing Requirement		3
	Credits	14

[1] Natural science laboratory: A one-credit science lab with a minimum grade of C is required. Students can elect a laboratory course that is approved for the general education physical or biological sciences requirement or any psychology laboratory. (Most laboratory courses cannot be taken without prerequisite or corequisite courses.)

Semester Two

PHY 2048 & 2048L Physics with Calculus 1 and Laboratory for Physics with Calculus 1 (**Critical Tracking**)		4
MAC 2312 Analytic Geometry and Calculus 2 (**Critical Tracking**, Gen Ed Mathematics)		4
GEO 3250 Climatology (Gen Ed Physical Sciences)		3
Quest 1 (Gen Ed Humanities)		3
	Credits	14

Semester Three

MET 3503 Weather and Forecasting		3
PHY 2049 & 2049L Physics with Calculus 2 and Laboratory for Physics with Calculus 2		4
MAC 2313 Analytic Geometry and Calculus 3		4
Gen Ed Biological Sciences[2]		3
Gen Ed Social and Behavioral Sciences[2]		3
	Credits	17

[2] One general education option taken this term must be a Quest 2 course.

Semester Four

MET 4301 Atmospheric Dynamics 1		4
MAP 2302 Elementary Differential Equations		3
STA 2023 Introduction to Statistics 1 (Gen Ed Mathematics)		3
State Core Gen Ed Social and Behavioral Sciences		3
Gen Ed Composition: Writing requirement		3
State Core Gen Ed Humanities		3
	Credits	16

Semester Five

MET 4500C Synoptic Meteorology		4
MET 4410 Radar and Satellite Meteorology		3

Foreign language		5
Societal Applications or Programming course		3
	Credits	15

Semester Six

MET 4531 Mesoscale Meteorology		3
Foreign language		5
Societal Applications or Programming course		3
Internship or MET4911 (Recommended)		1
	Credits	15

Semester Seven

MET 4230 Thermodynamics of the Atmosphere		3
MET 4524 Weather Briefings		1
Gen Ed Humanities		3
Elective (3000 level or above, not in major)		3
Societal Applications or Programming course		3
Atmospheric Science elective		3
	Credits	16

Semester Eight

MET 4450 Atmospheric Physics		3
MET 4950 Capstone Course (**Critical Tracking**)		1
Gen Ed Biological Sciences		3
Gen Ed Social and Behavioral Sciences		3
Atmospheric Science elective		3
	Credits	13
	Total Credits	120

Sequenced course of study for the B.S. Meteorology, Broadcast Meteorology specialization in the proposed degree program:

Semester One	**Credits**
MET 1010 Introduction to Weather and Climate (**Critical Tracking**; Gen Ed Physical Sciences)	3
CHM 2045 & 2045L General Chemistry 1 and General Chemistry 1 Laboratory (**Critical Tracking**; State Core Gen Ed Physical Sciences)[1]	4
MAC 2311 Analytic Geometry and Calculus 1 (**Critical Tracking**; State Core Gen Ed Mathematics)	4
State Core Gen Ed Composition; Writing Requirement	3

	Credits	14

[1] Natural science laboratory: A one-credit science lab with a minimum grade of C is required. Students can elect a laboratory course that is approved for the general education physical or biological sciences requirement or any psychology laboratory. (Most laboratory courses cannot be taken without prerequisite or corequisite courses.)

Semester Two

PHY 2048 & 2048L Physics with Calculus 1 and Laboratory for Physics with Calculus 1 (**Critical Tracking**)	4
MAC 2312 Analytic Geometry and Calculus 2 (**Critical Tracking**, Gen Ed Mathematics)	4
GEO 3250 Climatology (Gen Ed Physical Sciences)	3
JOU 2100 Broadcast Writing Bootcamp	1
Quest 1 (Gen Ed Humanities)	3
Credits	15

Semester Three

MET 3503 Weather and Forecasting	3
PHY 2049 & 2049L Physics with Calculus 2 and Laboratory for Physics with Calculus 2	4
MAC 2313 Analytic Geometry and Calculus 3	4
Gen Ed Biological Sciences[2]	3
Gen Ed Social and Behavioral Sciences[2]	3
Credits	17

[2] One general education option taken this term must be a Quest 2 course.

Semester Four

MET 4301 Atmospheric Dynamics 1	4
MAP 2302 Elementary Differential Equations	3
STA 2023 Introduction to Statistics 1 (Gen Ed Mathematics)	3
RTV 3303 Audio News and Reporting	3
State Core Gen Ed Social and Behavioral Sciences	3
Credits	16

Semester Five

MET 4500C Synoptic Meteorology	4
MET 4410 Radar and Satellite Meteorology	3
RTV 4301 TV News Reporting	3
Foreign language	5
Credits	15

Semester Six

MET 4531 Mesoscale Meteorology		3
RTV 4681 Television News 2		3
Gen Ed Composition: Writing requirement		3
Foreign language		5
Internship or MET4911 (Recommended)		1
	Credits	15

Semester Seven

MET 4230 Thermodynamics of the Atmosphere		3
MET 4524 Weather Briefings		1
JOU 4201 News Center Practicum: Intro to Broadcast Meteorology		2
Gen Ed Humanities		3
Gen Ed Biological Sciences		3
Societal Applications or Programming course		3
	Credits	15

Semester Eight

MET 4450 Atmospheric Physics		3
MET 4950 Capstone Course (**Critical Tracking**)		1
JOU 4201 News Center Practicum: Broadcast Meteorology Anchor		3
Gen Ed Social and Behavioral Sciences		3
State Core Gen Ed Humanities		3
	Credits	13
	Total Credits	120

E. Provide a brief description for each course in the proposed curriculum.

Fundamental Courses Outside of Department - credit hours in ()

CHM 2045 General Chemistry 1 (3)
Stoichiometry, atomic and molecular structure, the states of matter, reaction rates and equilibria.

CHM 2045L General Chemistry 1 Laboratory (1)
Laboratory experiments designed to reflect the topics presented in CHM 2045.

MAC 2311 Analytic Geometry and Calculus 1 (4)
Introduces analytic geometry; limits; continuity; differentiation of algebraic, trigonometric, exponential and logarithmic functions; applications of the derivative; inverse trigonometric functions; differentials; introduction to integration; and the fundamental theorem of calculus.

MAC 2312 Analytic Geometry and Calculus 2 (4)

Techniques of integration; applications of integration; differentiation and integration of inverse trigonometric, exponential and logarithmic functions; sequences and series.

MAC 2313 Analytic Geometry and Calculus 3 (4)
Solid analytic geometry, vectors, partial derivatives, and multiple integrals.

MAP 2302 Elementary Differential Equations (3)
First-order ordinary differential equations, theory of linear ordinary differential equations, solution of linear ordinary differential equations with constant coefficients, the Laplace transform and its application to solving linear ordinary differential equations.

PHY 2048 Physics with Calculus 1 (3)
The first of a two-semester sequence of physics for scientists and engineers. The course covers Newtonian mechanics and includes motion, vectors, Newton's laws, work and conservation of energy, systems of particles, collisions, equilibrium, oscillations, and waves.

PHY 2048L Laboratory for Physics with Calculus 1 (1)
Laboratory experience for PHY 2048 illustrating the practical applications of Newtonian mechanics.

PHY 2049 Physics with Calculus 2 (3)
The second of a two-semester sequence of physics for scientists and engineers. Content includes Coulomb's law, electric fields and potentials, capacitance, currents and circuits, Ampere's law, Faraday's law, inductance, Maxwell's equations, electromagnetic waves, ray optics, interference, and diffraction.

PHY 2049L Laboratory for Physics with Calculus 2 (1)
Laboratory experience for PHY 2049 illustrating the practical applications of Coulomb's law, electric fields and potentials, capacitance, currents and circuits, Ampere's law, Faraday's law, inductance, Maxwell's equations, electromagnetic waves, ray optics, interference, and diffraction.

STA 2023 Introduction to Statistics 1 (3)
Graphical and numerical descriptive measures. Simple linear regression. Basic probability concepts, random variables, sampling distributions, central limit theorem. Large and small sample confidence intervals and significance tests for parameters associated with a single population and for comparison of two populations. Use of statistical computer software and computer applets to analyze data and explore new concepts.

Meteorology Core

MET 1010 Introduction to Weather and Climate (3)
A course for non-science students interested in understanding the phenomena of daily weather. Several principles of physics are introduced.

GEO 3250 Climatology (3)
Genesis of regional climates and their global distribution. Emphasis on world regional climatology. Secondary topics include applied climatology and climate change.

MET 3503 Weather and Forecasting (3)
Provides hands-on experience using weather instruments and data and making forecasts.

MET 4230 Thermodynamics of the Atmosphere (3)
Detailed survey of atmospheric thermodynamics, which deals with energy transfers and processes involving moisture and stability that affect atmospheric motions and weather systems. Lecture material reinforced and supplemented through lab exercises. This topic is for those who intend to pursue a profession in meteorology, physics, atmospheric/climate science, or engineering.

MET 4301 Atmospheric Dynamics 1 (3)

This course covers the forces that govern atmospheric motion; acceleration in rotating curvilinear coordinates; momentum, continuity, and energy equations; scale analysis; geostrophic, gradient, and thermal winds; natural coordinates; circulation and vorticity theorems; Reynolds stresses; Prandtl and Ekman layers; and developing baroclinic systems.

MET 4410 Radar and Satellite Meteorology (3)
Overview of radar and satellite remote sensing as used in the atmospheric sciences, including the principles of atmospheric radiative transfer, the retrieval of atmospheric variables, and emphasis on geospatial interpretation of imagery for different weather systems.

MET 4450 Atmospheric Physics (3)
Technical and theoretical evaluation of radiative and microphysical properties of the atmosphere, clouds, and precipitation. Course includes radiative transfer processes fundamental to Earth's climate system, and key hypotheses regarding the development of cloud and precipitation, using mathematical principles to understand how droplets condense and grow.

MET 4500C Synoptic Meteorology (4)
Comprehensive survey of mid-latitude storm systems using conceptual and theoretical frameworks established through lecture material, and application of these concepts through immersive labs. Content includes atmospheric circulation, mid-latitude cyclones, fronts, jet streams, winter weather and severe storm environments. Appropriate for students seeking a career in atmospheric science or related field.

MET 4531 Mesoscale Meteorology (3)
Covers the major dynamic and thermodynamic processes of the atmosphere that govern the structure, development, and evolution of weather systems generally smaller than those of the synoptic scale.

MET 4524 Weather Briefing (1)
Students learn to prepare and present a daily weather briefing. Briefings will demonstrate the ability to synthesize weather information on all scales, prepare a forecast, and communicate this clearly and succinctly to an audience

MET 4911 Undergraduate Research in Meteorology and Climatology (0-3)
Provides firsthand, supervised research. Projects may involve inquiry, design, investigation, scholarship, discovery, or application.

MET 49XX Internship (0-5)
An individual program where students use of participative on-the-job methods of learning to gain practical experience in how meteorology is applied to public or private organizations, which may include forecasting, software development, leadership development, writing, and presenting.

MET 4950 Capstone (1)
Complete a final project addressing a research or operational issue relating to meteorology. The project should require the integration of the core subfields of meteorology and their application to a sector of the weather enterprise.

MET 4910 Honors Thesis (3)
Completion of an honors thesis that meets department specifications during the semester in which the student is enrolled.

Meteorology Electives (Atmospheric Science Electives)

MET 3753 Pragmatic Python for Weather (3)
Provides a fundamental understanding of the Python programming language with a core focus on ingesting, displaying, and analyzing observational meteorological data and numerical weather model data.

MET 4532 Hurricanes (3)

Meteorological and climatological concepts related to hurricanes. Forecasting current activity, researching past storms, and analyzing storm structure, damage, and future trends.

MET 4560 Atmospheric Teleconnections (3)
Atmospheric teleconnections are recurring large-scale patterns of pressure and circulation anomalies. They can influence temperature, rainfall, storm tracks and jet stream location and intensity. Examines how these patterns were discovered, how the index that characterizes the phase of each teleconnection is calculated and the weather associated with different phases.

MET 4750 Spatial Analysis of Atmospheric Data using GIS (3)
How atmospheric data are collected and analyzed for meteorologic and climatologic-scale research. Where various types of data are obtained and how to analyze data to answer specific research questions.

MET 4XXX Machine Learning in Meteorology (3)
Hands-on experiences with machine learning (ML) from a series of practical case-studies in meteorology. Regression, classification, clustering and retrieval, and deep learning to solve research questions by identifying potential applications of ML, selecting the appropriate ML models, representing data as features to serve as input to ML models, and assessing the model quality.

Elective courses in Geography (Societal Applications courses)

GEO 2006 Natural Hazards Geography (3)
Examines global weather, climate, and geophysical hazard events through geographic lens of human-environment interactions to understand how disasters emerge not only due to extreme events but from complex social, cultural, psychological, political, and economic forces. Discusses historical, recent, and ongoing hazard events to connect theory to individual and shared experiences.

GEO 3222 Sea Level Science (3)
Explains how sea level changes in space and time. Topics include methods for measuring sea level, the causes of sea level change such as tides, storms, and climate, future projections of sea level change, and resulting impacts.

GEO 3280 Principles of Geographic Hydrology (4)
Examines the effects of physical geography on the land-based portion of the hydrologic cycle at the regional and basin scales. Includes discussion of precipitation, infiltration, and runoff.

GEO 3334 Managing for a Changing Change (3)
Interdisciplinary survey of climate variability and change. Topics include the physical science basis for climate change, sectoral analysis of climate impacts, adaptation, and mitigation options. Active learning, discussions, and roleplaying facilitate understanding of critical issues facing the human and natural world.

GEO 3343 Extreme Droughts (3)
Examines droughts, particularly hydrologic droughts and drying rivers, and declining water resources. Assesses biophysical, socio-economic consequences when the quantity or quality of water is limited and/or decreasing through case studies in different environments (rivers, lakes, groundwater, etc.) and countries through data analysis and projects.

GEO 3341 Extreme Floods (3)
Examines the world's most extreme floods from the Pleistocene through present due to various causes. Discusses physical and human aspects of flood warning, preparedness, response, and recovery throughout the world.

GEO 4170 Communicating Science in the Geosciences (3)
An examination of techniques to communicate scientific knowledge and research to non-science audiences. Topics include quantitative and qualitative research methods, using narrative, discussing data and statistics,

risk communication, and communicating with journalists and politicians. Readings, discussions, and projects facilitate understanding of best practices when communicating to people making evidence-based decisions.

GEO 4285 Water, Risk, and Extreme Events (3)
Investigates techniques for evaluating the risks of extreme events related to water in our environment. Presents data and methodologies for estimating the rarity of phenomena including excessive rainfall totals, high and low river levels, coastal storm surge and waves, and drought.

GEO 4034 Weather Climate and Society (3)
Investigates social vulnerability to hazards, disasters, and climate change through perspectives and experiences of vulnerable population segments who often bear brunt of losses yet exhibit remarkable flexibility and creativity in coping and adapting to environmental risks. Introduces students to census data and spatial analysis to understand geographies of social vulnerability.

GEO 4033 Climate Change and Health (3)
Presents the science of climate change and impacts on health. Discussion builds on core concepts of climate change science to examine a variety of topics from acute impacts such as heat waves and other weather extremes to chronic conditions like degraded air quality. Mitigation and adaptation strategies are also discussed.

GIS 3043 Foundations of Geographic Information Systems (4)
Geographic Information Systems (GIS) as the technology for creation, modification, display, and analysis of spatial information. Develops knowledge of GIS, competence in geographic databases and familiarity with computer software and hardware.

GIS 4102C GIS Programming (3) (Programming Course)
Introduces basic programming concepts, instruction in popular programming languages for geospatial processing, applications, and modeling in ArcGIS environment.

GIS 4115 Applied Geostats (3)
Introduces fundamentals and practices of advanced geostatistical analysis (kriging), which addresses optimal spatial interpolation. Geostatistics are currently applied in diverse disciplines such as geography, geology, engineering, hydrology, urban studies, and epidemiology.

GIS 4324 GIS Analysis of Hazard Vulnerability (3)
Geographic and cartographic techniques for geospatial analysis of risk, vulnerability, and resilience using ArcGIS. Learn to utilize physical and human geographic datasets for multiple hazard contexts including hydrometeorological, climatological, and geophysical hazards.

GIS 4124 Geocomputation using R Programming (3) (Programming Course)
Introduction to geodata analysis using programming. Broad introduction to the programming language as well as applied spatial data analysis. Facilitates students' use of programming to analyze data of their own choosing on a final project. Code sharing and re-use is highly emphasized, as is collaboration.

Elective Courses outside of Geography

AEB 2451 Economics of Resource use (3)
Introduces how economists value the environment and regulations designed to protect our natural resources from overuse and degradation.

AOM 2520 Global Sustainable Energy: Past, Present and Future (3)
Explore the global history of energy sources; investigate new energy sources and analyze international solutions to future needs.

AST 2730 Introduction to Python for Physical Sciences (3)

Introduction to computational techniques for Physical Sciences with Python. Students learn syntax, capabilities, and foundations of Python and basic numerical methods to address physical problems with a computational approach. Course covers basics of dataset manipulation, algorithm development, and plotting.

COP 2274 C++ Programming for Engineers (3) Programming Course
Introductory course for those who have little experience in programming and have been looking to obtain a hands-on learning experience to the C++ programming language. Developing problem solving and computational thinking skills in an engineering field is encouraged in this course and emphasized with a reasonably high degree of mathematics.

ECO 2310 Economics of Sustainability (3)
Examines issues of environmental sustainability from an economic perspective. Discusses economic treatment of renewable and nonrenewable resources, land constraints, and global climate change. Identifies potential policy solutions grounded in economic theory.

GLY 3074 Oceans and Global Climate Change (3)
Examines the role the oceans play in determining climate and regulating global climate change on a range of timescales from decades to millions of years.

JOU 2100 Broadcast Writing Bootcamp (1)
Explore the differences of writing for the ear vs. writing for the eye. Focuses on storytelling through methodologies traditionally associated with broadcast journalism—which can also be incorporated in digital and social storytelling. Examines story structures and practical experience in writing scripts and sound-based stories.

JOU 4201 News Center Practicum: Introduction to Broadcast Meteorology (2)
Creating and editing local news content in our college's professional news center for broadcast and digital platforms serving north central Florida; emphasizes news judgement that serves the audience.

JOU 4201 News Center Practicum: Broadcast Meteorology Anchor (3)
Creating and editing local news content in our college's professional news center for broadcast and digital platforms serving north central Florida; emphasizes news judgement that serves the audience.

JOU 4304 Science Journalism (3)
This seminar-style course introduces the art and craft of producing well-written, engaging science news and feature stories for print, online and broadcast media. Students learn how to find science story ideas, interview sources, simplify complex concepts, sharpen their science storytelling skills, write publication-ready stories and pitch to editors.

RTV 3303 Audio news and reporting (3)
Basic writing, reporting and production of radio news stories and newscasts. Students must purchase approved recorder for class.

RTV 4301 TV News Reporting (3)
Basic writing, reporting and production of television news stories and newscasts. Students must purchase two approved video cassettes for class.

RTV 4681 Advanced TV News Reporting (3)
News reporting, videography, writing and editing for television newscasts on deadline. One day-long lab in television newsroom required and purchase of additional approved video cassettes may also be required.

STA 3100 Programming with Data in R (3) (Programming Course)
Introduction to statistical computing and programming with data. Topics include basic programming in R; data types and data structures in R; importing and cleaning data; specifying statistical models in R; statistical graphics; statistical simulation using pseudo-random numbers; reproducible research and the documentation of statistical analyses.

SWS 4180 Earth System Analysis (3)
Analysis of global-scale interdependences between climate, biogeochemical cycles and humans using a systems approach.

F. For degree programs in medicine, nursing, and/or allied health sciences, please identify the courses that contain the competencies necessary to meet the requirements identified in Section 1004.08, Florida Statutes. For teacher preparation programs, identify the courses that contain the competencies necessary to meet the requirements outlined in Section 1004.04, Florida Statutes.

☒ **Not applicable to this program because the program is not a medicine, nursing, allied health sciences, or teacher preparation program.**

G. Describe any potential impact on related academic programs or departments, such as an increased need for general education or common prerequisite courses or increased need for required or elective courses outside of the proposed academic program. If the proposed program is a collaborative effort between multiple academic departments, colleges, or schools within the institution, provide letters of support or MOUs from each department, college, or school in Appendix D.

There is no potential impact on general education or common prerequisite courses.

H. Identify any established or planned educational sites where the program will be offered or administered. If the proposed program will only be offered or administered at a site(s) other than the main campus, provide a rationale.

The anticipated the mode of delivery for the program will primarily be face-to-face and will not require specialized services or additional financial support.

I. Describe the anticipated mode of delivery for the proposed program (e.g., face-to-face, distance learning, hybrid). If the mode(s) of delivery will require specialized services or additional financial support, please describe the projected costs below and discuss how they are reflected in Appendix A – Table 3A or 3B.

The degree program will be delivered at the main campus of UF. Most courses will be fully face-to-face, though some courses will be available either partially or fully online. No mode of delivery will require specialized services or additional financial support.

J. Provide a narrative addressing the feasibility of delivering the proposed program through collaboration with other institutions, both public and private. Cite any specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

No queries were made of other institutions, but the program is open to collaboration should interest arise.

K. Describe any currently available sites for internship and/or practicum experiences. Describe any plans to seek additional sites in Years 1 through 5.

☒ **Not applicable to this program because the program does not require internships or practicums.**

V. Program Quality Indicators - Reviews and Accreditation

A. List all accreditation agencies and learned societies that would be concerned with the proposed program. If the institution intends to seek specialized accreditation for the proposed program, as described in Board of Governors Regulation 3.006, provide a timeline for seeking specialized accreditation. If specialized accreditation will not be sought, please provide an explanation.

UF does not intend to seek specialized accreditation because there are no accreditation agencies for the program. The relevant learned societies are the American Meteorological Society and the National Weather Association.

B. Identify all internal or external academic program reviews and/or accreditation visits for any degree programs related to the proposed program at the institution, including but not limited to programs within academic unit(s) associated with the proposed degree program. List all recommendations emanating from the reviews and summarize the institution's progress in implementing those recommendations.

The UF Geography Department was last reviewed in 2015. The 7-year Academic Program Review is being completed this year for the department's B.S. and B.A. in Geography and the B.A. in Environmental Geosciences degree programs. The degree programs for geography do not receive formal accreditation.

C. For all degree programs, discuss how employer-driven or industry-driven competencies were identified and incorporated into the curriculum. Additionally, indicate whether an industry or employer advisory council exists to provide input for curriculum development, student assessment, and academic-force alignment. If an advisory council is not already in place, describe any plans to develop one or other plans to ensure academic-workforce alignment.

Consideration of workforce competencies has been an integral component of this proposal process. The committee has met virtually with representatives in private industry, including one affiliated with the Board of Private Sector Meteorology within the American Meteorological Society (AMS). These meetings addressed the desired skills that employers seek in recent graduates and discussed options for collaboration in the curriculum. Further discussions will be a regular part of our management of the degree program.

Mr. Mullens is participating in the Mind the Gap workshop, an effort supported by the National Science Foundation, SUNY Albany, and the AMS to identify the gaps between the knowledge, skills, and abilities (KSAs) provided by a university meteorological curriculum and the KSAs that industry requires and employers are looking for. (http://www.atmos.albany.edu/facstaff/andrea/MindTheGap/index.html). The workshop outcomes include the creation of assignments, projects, and modules that prepare students to industry needs. Dr. Mullens sits on the Board of Higher Education with the AMS, which reviews best practices for curriculum.

The committee has an established relationship with the National Weather Service (NWS) office in Jacksonville, FL. The NWS offers internships and placements which are advertised to the faculty, leading to a potential pipeline for undergraduates in summer internships. The faculty responsible for the meteorology program will build upon these networks to provide regular opportunities for students to interact with representatives from the workforce of the private, public, and academic sectors.

VI. Faculty Participation

A. Use Appendix A – Table 2 to identify existing and anticipated full-time faculty who will participate in the proposed program through Year 5, excluding visiting or adjunct faculty. Include the following information for each faculty member or position in Appendix A – Table 2:

- **the faculty code associated with the source of funding for the position**
- **faculty member's name**
- **highest degree held**
- **academic discipline or specialization**
- **anticipated participation start date in the proposed program**
- **contract status (e.g., tenure, tenure-earning, or multi-year annual [MYA])**
- **contract length in months**
- **percent of annual effort that will support the proposed program (e.g., instruction, advising, supervising)**

This information should be summarized below in narrative form. Additionally, please provide the curriculum vitae (CV) for each identified faculty member in Appendix E.

Please see Appendix A – Table 2 for the full list of full-time faculty anticipated to participate in the proposed program. Please note that no new faculty are required for year 1 of the program. Dr. Esther Mullens, Dr. Corene Matyas, Dr. Berry Wen, and Mr. Stephen Mullens are expected to teach the upper-division major courses. Dr. Kevin Ash, Dr. Katherine Serafin, Dr. David Keellings, Dr. Joann Mossa, and Dr. Anwar Moulay Sounny-Slitine teach multiple relevant electives that are included in multiple specializations. Kwansun Cho, Dr. Johanna Engstrom, Dr. Brenda Betancourt, Dr. Paul Torrey, and Dr. Ellen Martin each teach a relevant elective course applicable to all specializations. The remaining nine instructors teach elective courses that are only relevant to a specific specialization, and their effort reflects a smaller contribution to the proposed program. All faculty will begin participating in the program immediately.

B. Provide specific evidence demonstrating that the academic unit(s) associated with the proposed program have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, and other qualitative indicators of excellence (e.g., thesis, dissertation, or research supervision).

The degree program will be housed within the Department of Geography. Of the department's 25 full-time faculty, four have joined the department since 2018 as strategic hires designed to develop the atmospheric and climate sciences cohort in the department and facilitate the implementation of artificial intelligence and computational skills across the program.

Department of Geography faculty continue to expand its enrollment and offerings to undergraduates. Undergraduate student headcount has increased from 51 to 116 (127 percent) from 2014 to 2021. Graduates from the Geography bachelor's program has

increased accordingly from 26 to 41 per year (150 percent) during that time. Between 2020 and 2021, the department's graduate student headcount averaged 27 masters and doctoral graduates. From 2017 to 2022, the Meteorology and Climatology certificate has averaged an enrollment of 30 students across a diverse range of majors. The greatest enrollment has been since 2020, with enrollment growing to an average of 36 students. The department has recently introduced new certificates as well. A new degree specialization in Geographical Science and Sustainability was created for the B.A. in Geography in 2021. The *GeoAI: Geographic Artificial Intelligence & Big Data* certificate will become the department's fourth certificate offering in Fall 2022. The growth in available certificates has been aided by 38 new courses added to the course catalog between 2020 and 2022. During this time, department faculty have averaged a 4.5 out of 5 from student evaluations received from taught courses. Several department faculty have received teaching awards from the college and university. In 2021, the department formalized its system of regular peer review and evaluation for inclusion in annual activity reports and tenure and promotion packets. Several faculty have participated in pedagogical training, multicultural training, and received certificates from the Center for Teaching Excellence.

The department has been successful in connecting students at Santa Fe College to UF and opportunities in the broad geosciences through an NSF GEOPATHS award sponsored by Dr. Matyas and Dr. Lannon. One student continued in the field of atmospheric sciences, winning a McNair scholarship, a graduate student fellowship, and numerous departmental awards. Another first-generation student received support for the department's graduate program.

Department of Geography faculty continue to be engaged in research, including continual support of both graduate and undergraduate student research. From 2015 to 2022, twelve students have enrolled in a combined total of 23 credit hours of undergraduate research specifically on meteorological topics (MET4911). These undergraduate research opportunities have been provided by four faculty related to the proposed program: Dr. Mullens, Dr. Matyas, Dr. Ash, and Mr. Mullens. Several of the students have been awarded support by the University Scholarship Program or CLAS Scholarship Program. Several of these students were female and at least four are from underrepresented backgrounds and ethnicities within the meteorological profession.

More broadly, from 2017 to 2021, Department of Geography faculty requested $278 million in research grants over more than 200 proposals. The grant applications rank fifth among the College of Liberal Arts and Sciences, higher when ranked per faculty. This includes faculty associated with the proposed program requesting nearly $5 million over 20 proposals between 2020 and 2021. Some of these grants specifically include funding for undergraduate student research. As a result, department faculty published 421 peer-reviewed journal articles and produced a further 87 non-peer reviewed works.

VII. Budget

A. Use Appendix A – Table 3A or 3B to provide projected costs and associated funding sources for Year 1 and Year 5 of program operation. In narrative form, describe all projected costs and funding sources for the proposed program(s). Data for Year 1 and Year 5 should reflect snapshots in time rather than cumulative costs.

In year 1, the only costs of the proposed program are faculty salaries and benefits. Most of the faculty are supported through state funds. Two full-time staff in the College of Journalism and Communications are associated with donor funds, which we have included in the Philanthropy and Endowments column. In year 5, increased costs associated with faculty salaries and benefits are the result of a 3% year over year increase. In addition, an estimated $4600 in OPS salary is included in anticipation of a general education course being offered in either the Summer A or Summer B semester. An estimated $6000 in additional programmatic expenses is included for the purchase of instrumentation equipment specifically for course instruction. The year 1 costs are estimated to be $419,454. The year 5 costs are estimated to be $482,699. By year 5, the cost is estimated to be under $16,000 per student.

B. Use Appendix A – Table 4 to show how existing Education & General (E&G) funds will be reallocated to support the proposed program in Year 1. Describe each funding source identified in Appendix A – Table 4, and provide a justification below for the reallocation of resources. Describe the impact the reallocation of financial resources will have on existing programs, including any possible financial impact of a shift in faculty effort, reallocation of instructional resources, greater use of adjunct faculty and teaching assistants, and explain what steps will be taken to mitigate such impacts.

The majority of the reallocated E&G funds will be from the Geography Department, though the meteorology program will remain within the department. Reallocated funds from the College of Journalism and Communications and departments of Statistics, Engineering Education Admin, Astronomy, Geology, Soil and Water Science, Economics, Agricultural and Biological Engineering, Psychiatry, and Food and Resource Economics reflect a diverse range of upper-division electives offered in one or all of our proposed specializations. With each program accounting for a small number of courses, smaller amounts are reallocated compared to Geography.

C. If the institution intends to operate the program through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition, as described in Board of Governors Regulation 8.002, provide a rationale and a timeline for seeking Board of Governors' approval.

☒ Not applicable to this program because the program will not operate through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition

D. Provide the expected resident and non-resident tuition rate for the proposed program for both resident and non-resident students. The tuition rates should be reported on a per credit hour basis, unless the institution has received

approval for a different tuition structure. If the proposed program will operate as a continuing education program per Board of Governors Regulation 8.002, please describe how the tuition amount was calculated and how it is reflected in Appendix A – Table 3B.

The proposed program is expected to operate with a resident tuition of $105.07 per credit hour and a non-resident tuition of $812.28 per credit hour. These rates are based on UF Regulation 3.0375 governing tuition cost.

E. Describe external resources, both financial and in-kind support, that are available to support the proposed program, and explain how this amount is reflected in Appendix A – Table 3A or 3B.

External donations support a portion of Journalism faculty salary. Indirect costs from research grants can support the acquisition of equipment for classroom instruction, including instrumentation. External student opportunities, including internships and scholarships, could enhance the undergraduate learning experience.

VIII. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5 below, including but not limited to the following:

- **the total number of volumes and serials available in the discipline and related disciplines**
- **all major journals that are available to the university's students**

The Library Director must sign the additional signatures page to indicate that they have review Sections VIII.A. and VIII.B.

The Libraries of the University of Florida form the largest information resource system in the state of Florida. The libraries hold over 6.7M print volumes, 1.5M e-books, and provide access to over 148K full-text print and electronic journals, as well as over 1992 electronic databases. The George A. Smathers Libraries of the University of Florida, a system of six research libraries, includes libraries for sciences, humanities & social sciences, architecture & fine arts, education, and health sciences. Additional library resources are available in two specialized libraries, the UF Digital Collections and the Special & Area Studies Collection. Electronic books, journals and many key databases, such as Web of Science, SCOPUS and others, are available via the internet to UF students, faculty and staff. Many relevant databases are multidisciplinary and are funded centrally. The UF Libraries expend over $12.2 million annually on electronic resources.

These resources include 21,561 volumes relating to meteorology and climatology. There are 8114 books available online, 5580 books on microfiche or microprint, 6,613 books available through the FLARE storage facility or Request Retrieval, and 1,254 print titles in Marston Science Library. In addition, library patrons have access to 156 peer-reviewed journals relating to the study of Meteorology. A selection of the important peer-reviewed journals in the field of Meteorology are listed below.

- Bulletin of the AMS
- Community Science
- Earth Interactions
- Journal of Atmospheric Sciences
- Journal of Climate
- Journal of Hydrometeorology
- Monthly Weather Review
- Weather and Forecasting
- Atmospheric Science Letters
- Climate Resilience and Sustainability
- International Journal of Climatology
- Meteorological Applications
- Quarterly Journal of the Royal Met. Soc.
- Weather
- WIREs Climate Change
- Climate Dynamics
- Climatic Change
- Natural Hazards Research

- EOS JGR -Oceans and Atmospheres
- Geophysical Research Letters
- Natural Hazards and Earth System Sciences
- Weather and Climate Dynamics
- Atmosphere
- Climate
- Water
- Chemical and Physical Meteorology
- Dynamic Meteorology and Oceanography

The Libraries hold memberships in a number of consortia, and in institutions such as the Center for Research Libraries, ensuring access to materials not held locally. "UBorrow" service allows UF patrons to easily borrow materials from any other Florida state university or college library. Materials not held in UF collections and unavailable via UBorrow are procured through Interlibrary Loan. Interlibrary Loan requests are fulfilled at no cost to the library patron; participation in this library collection exchange program is paid for by the UF Libraries. All students, faculty, and staff may use interlibrary loan services.

With monies allocated through the Provost and the UF budgeting process, the library materials budget is determined by the Dean of Libraries in consultation with the Senior Associate Dean for Scholarly Resources & Research Services and subject specialist librarians. Standing subscriptions to journal literature and databases make up the majority of purchasing. Online research guides for all UF disciplines and many specific topics are available from the library website http://library.ufl.edu. Many online tutorials for specific databases are also available. Additionally, the UF Libraries offer consultations, workshops, and events throughout the year.

B. Discuss any additional library resources that are needed to implement and/or sustain the program through Year 5. Describe how those costs are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional library resources are needed to implement or sustain the proposed program.

C. Describe any specialized equipment and space currently available to implement and/or sustain the proposed program through Year 5.

The physical infrastructure within the Department of Geography has been expanded in recent years and will support this program. Within Turlington Hall, Geography has three classrooms, two computer lab-rooms, and a graduate student lounge with collaborative workspace. Two classrooms provide a multi-monitor set up and flexible workspaces, including roundtables, suitable for informal discussion and groupwork. Faculty affiliated with this program have their own lab spaces for research which may be used by undergraduates for research purposes. This includes three current labs related to the proposed program. Students and Faculty have complete access to library facilities with on and off-site access to major journals and electronic materials.

Research Computing at University of Florida (UF) operates the HiPerGator supercomputer, a cluster-based system with a combined capacity of about 51,000 cores that share over 5 Peta Bytes of distributed storage. The system includes over 100 NVIDIA GPU accelerators and 24 Intel Xeon Phi accelerators, with a 2020 update supplying the latest in NVIDA technology, specifically DGX SuperPOD™ architecture, the first to house this technology within any supercomputing system in the world. HiPerGator is used by faculty in 'big data' weather and climate research and can be accessed by faculty and students engaged in training, teaching, and experimental and production research.

D. Describe any additional specialized equipment or space that will be needed to implement and/or sustain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Appendix A – Table 3A or 3B. Costs for new construction should be provided in response to Section X.E. below.

☐ Not applicable to this program because no new I&R costs are needed to implement or sustain the program through Year 5

No additional space is needed.

Additional instrumentation, such as handheld meteorological instrumentation, would provide students with the opportunity to interact with instrumentation, the resulting raw data, critically thinking through data interpretation, and communicating results through assignments and projects. Classroom instrumentation would help sustain the program following implementation. With handheld instruments being less than $300 each, an additional $6000 would provide a set of instruments for a class. This cost is shown in "Other funding Year 5" in Appendix A - Table 3A.

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Appendix A – Table 3A or 3B includes only I&R costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs, in particular, would necessitate increased costs in non-I&R activities.

☒ Not applicable to this program because no new capital expenditures are needed to implement or sustain the program through Year 5.

F. Describe any additional special categories of resources needed to operate the proposed program through Year 5, such as access to proprietary research facilities, specialized services, or extended travel, and explain how those projected costs of special resources are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional special categories of resources are needed to implement or sustain the program through Year 5.

G. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5, and explain how those are reflected in Appendix A – Table 3A or 3B.

☐ **Not applicable to this program because no fellowships, scholarships and/or graduate assistantships will be allocated to the proposed program through Year 5.**

An estimated $4600 in OPS salary is included in Year 5 to support a graduate teaching assistant in anticipation of a general education course being offered in either the Summer A or Summer B semester. The course is MET 1010 Introduction to Weather and Climate. This is reflected in Appendix A - Table 3A as OPS in Year 5.

IX. Required Appendices

The appendices listed in tables 1 & 2 below are required for all proposed degree programs except where specifically noted. Institutions should check the appropriate box to indicate if a particular appendix is included to ensure all program-specific requirements are met. Institutions may provide additional appendices to supplement the information provided in the proposal and list them in Table 4 below.

Table 1. Required Appendices by Degree Level

Appendix	Appendix Title	Supplemental Instructions	Included? Yes/No	Required for Degree Program Level		
				Bachelors	Masters/ Specialist	Doctoral/ Professional
A	Tables 1-4		Y	X	X	X
B	Consultant's Report and Institutional Response		N			X
C	Academic Learning Compacts	Include a copy of the approved or proposed Academic Learning Compacts for the program	Y	X		
D	Letters of Support or MOU from Other Academic Units	Required only for programs offered in collaboration with multiple academic units within the institution	N	X	X	X
E	Faculty Curriculum Vitae		Y	X	X	X
F	Common Prerequisite Request Form	This form should also be emailed directly to the BOG Director of Articulation prior to submitting the program proposal to the Board office for review.	Y	X		
G	Request for Exemption to the 120 Credit Hour Requirement	Required only for baccalaureate degree programs seeking approval to exceed the 120 credit hour requirement	N	X		
H	Request for Limited Access Status	Required only for baccalaureate degree programs seeking approval for limited access status	N	X		

Table 2. Additional Appendices

Appendix	Appendix Title	Description
I	FIU Letter of Support	Letter of Support from FIU as required in Section 3F.

Appendix A
Table 1-A
Undergraduate Enrollment

Source of Students (Non-duplicated headcount in any given year)*	Year 1 HC	Year 1 FTE	Year 2 HC	Year 2 FTE	Year 3 HC	Year 3 FTE	Year 4 HC	Year 4 FTE	Year 5 HC	Year 5 FTE
Upper-level students who are transferring from other majors within the university**	5	3.75	7	5.25	8	6	8	6	3	2.25
Students who initially entered the university as FTIC students and who are progressing from the lower to the upper level***	5	3.75	11	8.25	19	14.25	29	21.75	36	27
Florida College System transfers to the upper level***	0	0	1	0.75	1	0.75	2	1.5	2	1.5
Transfers to the upper level from other Florida colleges and universities***	0	0	1	0.75	2	1.5	3	2.25	3	2.25
Transfers from out of state colleges and universities***	0	0	0	0	0	0	0	0	1	0.75
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	**10**	**7.5**	**20**	**15**	**30**	**22.5**	**42**	**31.5**	**45**	**33.75**

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.

** If numbers appear in this category, they should go DOWN in later years.

*** Do not include individuals counted in any PRIOR CATEGORY in a given COLUMN.

Appendix A
Table 1-B
Graduate Enrollment

Source of Students (Non-duplicated headcount in any given year)*	Year 1 HC	Year 1 FTE	Year 2 HC	Year 2 FTE	Year 3 HC	Year 3 FTE	Year 4 HC	Year 4 FTE	Year 5 HC	Year 5 FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	0	0	0	0	0	0	0	0	0	0
Students who transfer from other graduate programs within the university**	0	0	0	0	0	0	0	0	0	0
Individuals who have recently graduated from preceding degree programs at this university	0	0	0	0	0	0	0	0	0	0
Individuals who graduated from preceding degree programs at other Florida public universities	0	0	0	0	0	0	0	0	0	0
Individuals who graduated from preceding degree programs at non-public Florida institutions	0	0	0	0	0	0	0	0	0	0
Additional in-state residents***	0	0	0	0	0	0	0	0	0	0
Additional out-of-state residents***	0	0	0	0	0	0	0	0	0	0
Additional foreign residents***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.

** If numbers appear in this category, they should go DOWN in later years.

*** Do not include individuals counted in any PRIOR category in a given COLUMN.

Appendix A
Table 2
Faculty Participation

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Specialty	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Stephen Mullens, M.S. Meteorology	Asst. Inst. Professor	Non Tenure	Fall 2024	9	0.75	0.96	0.72	9	0.75	0.96	0.72
A	Esther Mullens, Ph.D. Meteorology	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.44	0.33	9	0.75	0.44	0.33
A	Corene Matyas, Ph.D. Geography, Climatology	Professor	Tenure	Fall 2024	9	0.75	0.33	0.25	9	0.75	0.33	0.25
A	Yixin Wen, Ph.D. Meteorology	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.27	0.20	9	0.75	0.27	0.20
A	Megan Borowski, B.S. Journalism	Meteorologist	Non Tenure	Fall 2024	12	1.00	0.06	0.06	12	1.00	0.06	0.06
A	Kevin Ash, Ph.D. Meteorology, Geography	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.50	0.38	9	0.75	0.50	0.38
A	Anwar Moulay Sounny-Slitine, Ph.D. Geographic Information Systems	Asst. Inst. Professor	Non Tenure	Fall 2024	12	1.00	0.19	0.19	12	1.00	0.19	0.19
A	Harrison Hove, M.A. Journalism	Asst. Inst. Professor	Non Tenure	Fall 2024	9	0.75	0.11	0.08	9	0.75	0.11	0.08
A	David Keellings, Ph.D. Geography	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Mark Leeps, M.A. Journalism	Asst. In	Non Tenure	Fall 2024	12	1.00	0.06	0.06	12	1.00	0.06	0.06
A	Ryan Vasquez, M.S. Journalism	Broadcasting Coord. III	Non Tenure	Fall 2024	12	1.00	0.06	0.06	12	1.00	0.06	0.06
A	Joann Mossa, Ph.D. Geography	Professor	Tenure	Fall 2024	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Katherine Serafin, Ph.D. Geography	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.38	0.29	9	0.75	0.38	0.29
A	Johanna Engstrom, Ph.D. Geography	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.13	0.10	9	0.75	0.13	0.10
A	Brenda Betancourt, Ph.D. Statistics	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.13	0.10	9	0.75	0.13	0.10

A	Kwansun Cho, Ph.D. Computer Science	Asst. Inst. Professor	Non Tenure	Fall 2024	12	1.00	0.19	0.19	12	1.00	0.19	0.19
A	Paul Torrey, Ph.D. Astronomy	Asst. Prof.	Tenure Track	Fall 2024	9	0.75	0.13	0.10	9	0.75	0.13	0.10
A	Ellen Martin, Ph.D. Paleoceanography	Professor	Tenure	Fall 2024	9	0.75	0.13	0.10	9	0.75	0.13	0.10
A	Stefan Gerber, Ph.D. Science	Assoc. Prof.	Tenure	Fall 2024	12	1.00	0.03	0.03	12	1.00	0.03	0.03
A	Michelle Phillips, Ph.D. Economics	Asst. Inst. Professor	Non Tenure	Fall 2024	9	0.75	0.04	0.03	9	0.75	0.04	0.03
A	Daniel Hofstetter, Ph.D. Engineering	Asst. Prof.	Tenure	Fall 2024	12	1.00	0.03	0.03	12	1.00	0.03	0.03
A	Czerne Reid, Ph.D. Journalism	Inst. Prof.	Non Tenure	Fall 2024	12	1.00	0.03	0.03	12	1.00	0.03	0.03
A	Misti Sharp, Ph.D. Economics	Asst. Inst. Professor	Non Tenure	Fall 2024	12	1.00	0.06	0.06	12	1.00	0.06	0.06
	Total Person-Years (PY)							**3.75**				**3.75**

Faculty Code	Code Description	Source of Funding	PY Workload by Budget Classification Year 1		Year 5
A	Existing faculty on a regular line	Current Education & General Revenue	3.75		3.75
B	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00		0.00
C	New faculty to be hired on a new line	New Education & General Revenue	0.00		0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00		0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00		0.00
F	Existing faculty on endowed lines	Philanthropy & Endowments	0.00		0.00
G	New faculty on endowed lines	Philanthropy & Endowments	0.00		0.00
H	Existing or new faculty teaching outside of regular/tenure-track line course load	Enterprise Auxiliary Funds	0.00		0.00
		Overall Totals for	**3.75**		**3.75**

Appendix A
Table 3-A
Education & General Budget

Institutions should not edit the categories or budget lines in the table below. This table is specific to state-funded (E&G) programs, and institutions are expected to explain all costs and funding sources in Section VII.A. of the proposal. Detailed definitions for each funding category are located at the bottom of the table.

Budget Line Item	Reallocated Base* (E&G) Year 1	Enrollment Growth (E&G) Year 1	New Recurring (E&G) Year 1	New Non-Recurring (E&G) Year 1	Contracts & Grants (C&G) Year 1	Philanthropy/ Endowments Year 1	Other Funding Year 1 - Please Explain in Section VII.A. of the Proposal	**Subtotal Year 1**	Continuing Base** (E&G) Year 5	New Enrollment Growth (E&G) Year 5	Other*** (E&G) Year 5	Contracts & Grants (C&G) Year 5	Philanthropy/ Endowments Year 5	Other Funding Year 5 - Please Explain in Section VII.A. of the Proposal	**Subtotal Year 5**
Salaries and Benefits (Faculty)	410,881	0	0	0	0	8,572	0	**$419,454**	462,451	0	0	0	9,648	0	**$472,099**
Salaries and Benefits (A&P and USPS)	0	0	0	0	0	0	0	**$0**	0	0	0	0	0	0	**$0**
OPS (including assistantships & fellowships)	0	0	0	0	0	0	0	**$0**	4,600	0	0	0	0	0	**$4,600**
Programmatic Expenses****	0	0	0	0	0	0	0	**$0**	0	0	0	0	0	6,000	**$6,000**
Total Costs	**$410,881**	**$0**	**$0**	**$0**	**$0**	**$8,572**	**$0**	**$419,454**	**$467,051**	**$0**	**$0**	**$0**	**$9,648**	**$6,000**	**$482,699**

*Identify reallocation sources in Table 4.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

****include library costs, expenses, OCO, special categories, etc.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	3.75	3.75
FTE (A&P and USPS)	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	$410,881	$467,051
Annual Student FTE	7.5	33.75
E&G Cost per FTE	$54,784.19	$13,838.54

Table 3 Column Explanations

Reallocated Base* (E&G)	1	E&G funds that are already available in the university's budget and will be reallocated to support the new program. Please include these funds in the Table 4 – Anticipated reallocation of E&G funds and indicate their source.
Enrollment Growth (E&G)	2	Additional E&G funds allocated from the tuition and fees trust fund contingent on enrollment increases.
New Recurring (E&G)	3	Recurring funds appropriated by the Legislature to support implementation of the program.
New Non-Recurring (E&G)	4	Non-recurring funds appropriated by the Legislature to support implementation of the program. Please provide an explanation of the source of these funds in the budget section (section VII.A.) of the proposal. These funds can include initial investments, such as infrastructure.
Contracts & Grants (C&G)	5	Contracts and grants funding available for the program.
Philanthropy Endowments	6	Funds provided through the foundation or other Direct Support Organizations (DSO) to support the program.
Continuing Base** (E&G)	7	Includes the sum of columns 1, 2, and 3 over time.
New Enrollment Growth (E&G)	8	See explanation provided for column 2.
Other*** (E&G)	9	These are specific funds provided by the Legislature to support implementation of the program.
Contracts & Grants (C&G)	10	See explanation provided for column 5.
Philanthropy Endowments	11	See explanation provided for column 6.
Other Funding	12	Any funding sources not already covered in any other column of the table. Please provide an explanation for any funds listed in these columns in the narrative for Section VII.A. of the proposal.

Appendix A
Table 4
Reallocation

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Geography	$903,950	$315,980	**$587,970**
Journalism	$178,469	$15,854	**$162,615**
Statistics	$101,908	$13,248	**$88,660**
Engineering Education Admin	$97,685	$18,560	**$79,125**
Astronomy	$88,133	$11,457	**$76,676**
Geology	$136,444	$17,738	**$118,706**
Soil And Water Science	$109,371	$3,281	**$106,090**
Economics	$98,350	$3,934	**$94,416**
Agricul / Biological Eng	$95,000	$2,850	**$92,150**
Psychiatry	$95,980	$2,879	**$93,101**
Food / Resources Economics	$85,000	$5,100	**$79,900**
Totals	$1,990,291	$410,881	**$1,579,409**

*** If not reallocating E&G funds, please submit a zeroed Table 4**

Appendix C

Academic Learning Compact

Academic Learning Compact – Meteorology

A major in meteorology enables students to know the composition, structure, and motion of the Earth's atmosphere, to learn its governing laws of physics, energy, and chemistry, and to understand its relationship with Earth and human systems. Students will learn how observations, data collection, and prediction are applied in the subfields of meteorology. Computer-based lab assignments teach students how to analyze meteorological information and to apply data to solve problems. They will be able to interpret and effectively communicate information using maps, graphs, and/or statistics.

Before Graduating Students Must:

- Complete a capstone paper in MET 4930, as developed by meteorology faculty.
- Complete a capstone presentation in MET 4930, as developed by meteorology faculty.
- Complete a capstone portfolio in MET 4930, evaluated by meteorology faculty.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the major will learn to:

Student Learning Outcomes (SLOs):

Content: Identify, describe, and explain the basic terminology, concepts, and theories that apply to atmospheric and climatological forces across time and space scales.

Critical Thinking: Analyze and interpret weather and climate data and apply the interpretation toward solving real-world problems.

Communication: Clearly and objectively communicate weather and climate information in oral and/or written forms.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	**SLO 1**	**SLO 2**	**SLO 3**
MET 1010	I		
GEO 3250	R	I	
MET 3503	R	R	
MET 4500C	R	R	I
MET 4524	R	R	R
MET 4930	A	A	A
Plus 12 additional credits in the department and 17 credits outside the department with CHM, GEO, GIS, PHY, STA	R	R	R

Assessment Types

- Portfolio
- Paper
- Oral presentation

Appendix E

Faculty Curriculum Vitae

BIOSKETCH: Dr. Corene J. Matyas
Professor, Department of Geography
University of Florida
3141 Turlington Hall, Box 117315
Gainesville, FL 32611
(352) 294-7508; matyas@ufl.edu

Professional Preparation

Clarion Univ. of Pennsylvania	Environmental Geoscience	BS	1999
Arizona State University	Geography	MA	2001
Pennsylvania State University	Geography	PhD	2005

Appointments

Full Professor	UF	2020 - present
University of Florida Term Professor	UF	2016-2019; 2019-2022
Colonel Allan R. and Margaret G. Crow Term Professor	UF	2014 - 2015
Associate Professor	University of Florida	2012 - 2020
Assistant Professor	University of Florida	2005 - 2012
Visiting Assistant Professor	Ohio University	2004 - 2005
Teaching Assistant	Pennsylvania State University	2002 - 2004
Research Assistant	Pennsylvania State University	2001 - 2002
Research Assistant	Arizona State University	1999 - 2001

Closely-Related Products * indicates student coauthor

Matyas, C.J., Stofer, K. A., Judge, J., Lannon, H. J., Hom, B., Lanman, B., 2022. Despite challenges, 2-year college students benefit from faculty-mentored geoscience research at a 4-year university as part of an extracurricular program, *Journal of Geoscience Education.* DOI: 10.1080/10899995.2022.2037403

Zhou, Y. and Matyas, C. J. 2021. Regionalization of precipitation associated with tropical cyclones using spatial metrics and satellite precipitation, *GIScience & Remote Sensing*, 58, 1-20, DOI: 10.1080/15481603.2021.1908675

*Zick, S.E. and Matyas, C. J. 2016. A shape metric methodology for studying the evolving geometries of synoptic-scale precipitation patterns in tropical cyclones. *Annals of the Association of American Geographers*, 106, 1217-1235.

*Hernandez Ayala, J.J. and Matyas, C. J. 2018. Spatial distribution of tropical cyclone rainfall and its contribution to the climatology of Puerto Rico. *Physical Geography*, 39, 1-20.

Matyas, C. J., Zick. S. E. and *Tang, J. 2018. Using an object-based approach to quantify the spatial structure of reflectivity regions in Hurricane Isabel (2003): Part I: Comparisons between radar observations and model simulations. *Monthly Weather Review*, 146, 1319-1340. DOI: 10.1175/MWR-D-17-0077.1

Other Significant Products * indicates student coauthor

*Tang, J. and Matyas, C. J. 2016. Fast playback framework for analysis of ground-based Doppler radar observations using Map-Reduce technology. *Journal of Atmospheric and Oceanic Technology,* 33, 621-634. DOI:10.1175/JTECH-D-15-0118.1

Matyas, C. J. and Carleton, A. M. 2010. Surface radar-derived convective rainfall associations with Midwest U.S. land surface conditions in summers 1999 and 2000, *Theoretical and Applied Climatology,* 93:3, 315-330.

Matyas, C., Srinivasan, S., *Cahyanto, I., Thapa, B., Pennington-Gray, L, Villegas, J. 2011. Risk perception and evacuation decisions of Florida tourists under hurricane threats: A stated preference analysis, *Natural Hazards*, 59:2, 871-890.

Matyas, C. J. 2015. Tropical cyclone formation and motion in the Mozambique Channel. *International Journal of Climatology,* 35, 375–390. DOI: 10.1002/joc.3985.

*Dzotsi, K. A., Matyas, C. J., Jones, J.W., Baigorria, G., Hoogenboom, G. 2014. Spatial and temporal variability of rainfall in southwest Georgia, *International Journal of Climatology*, 34:11, 3188-3203. DOI: 10.1002/joc.3904.

Synergistic Activities

- Developed and have taught relevant courses in climatology, atmospheric teleconnections, hurricanes, weather and forecasting, spatial analysis of atmospheric data using GIS, all of which are part of the Undergraduate Certificate in Meteorology and Climatology that I developed and coordinate

- Mentored students from Santa Fe College through collaborative National Science Foundation (NSF) grant among UF, SFC, and the Orlando Science Center to educate K-12 and college students about research, teaching methods, and careers in geosciences

- Participated in the development, lecture delivery, and in-class assignments and assessments for the Grand Challenge course Climate Change: Science and Solutions. This interdisciplinary course was developed by faculty from the Colleges of Liberal Arts & Sciences, Design, Construction & Planning, and Agricultural and Life Sciences

- Named College of Liberal Arts and Sciences Teacher of the Year in 2009 and 2019; received Excellence in Teaching award from the Southeast Division of the American Association of Geographers

- PI or Co-PI on 4 projects funded by the National Science Foundation contributing to research on tropical cyclone rainfall, winds, and damage (total $2,022,186)

Esther Danielle Mullens (née White)

University of Florida
NSF Biographical Sketch

(a) Professional Preparation

University of Reading	Reading, UK	Meteorology	B.Sc, 2007
University of Oklahoma	Norman, OK	Meteorology	PhD 2014
University of Oklahoma	Norman, OK	Climatology	Postdoctoral Assistant 2014-18

(b) Other Appointments

2018- Assistant Professor, University of Florida Department of Geography
2014. Adjunct instructor in meteorology, Rose State College, Midwest City, Oklahoma
2010 Summer Research Intern, Southern Climate Impacts Planning Program (SCIPP)
2005 Summer Research Intern, Hadley Centre for Climate Change, UK Meteorological Office, Exeter, United Kingdom

(c) Publications

(i) Related Products

Mullens, E.D., & McPherson, R.A. 2019. Quantitative Scenarios for Future Hydrologic Extremes in the U.S. Southern Great Plains. *Int. J. Climatology*, **39**(5), https://doi.org/10.1002/joc.5979

Mullens, E.D., and McPherson R.A, 2017: A Multi-algorithm reanalysis-based freezing precipitation dataset for climate studies in the South-Central U.S. *J. Appl. Meteor. Clim,* **56**, doi: 10.1175/JAMC-D-16-0180.1.

Mullens, E. D., L. M. Leslie, and P. J. Lamb, 2016: Impacts of Gulf of Mexico SST Anomalies on Southern Plains freezing precipitation: WRF-ARW sensitivity study of the January 28-30 2010 Winter Storm. *J. Appl. Meteor. Clim.* doi: http://dx.doi.org/10.1175/JAMC-D-14-0289.1

Mullens, E. D., L. M. Leslie, and P. J. Lamb, 2016: A synoptic climatology of ice and snow storms in the Southern Great Plains 1993-2011. *Weather and Forecasting*, **31**, 1109-1136, doi: http://dx.doi.org/10.1175/WAF-D-15-0172.1

Mullens, E. D., M. Shafer, J. Hocker, 2013: Trends in heavy precipitation in the southern U.S.A. *Weather*, **68**, 311-316, doi: 10.1002/wea.2113

(ii) Other Significant Products

Kloesel, K., B. Bartush, J. Banner, D. Brown, J. Lemory, X. Lin, G. McManus, **E. Mullens**, J. Nielsen-Gammon, M. Shafer, C. Sorenson, S. Sperry, D. Wildcat, and J. Ziolkowska, 2018: Southern Great Plains. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 987–1035. doi: 10.7930/NCA4.2018.CH23

Chen, S., J. Zhang, **E. Mullens**, Y. Hong, A. Behrangi, Y. Tian, X. M. Hu, J. Hu, Z. Zhang, and X. Zhang, 2015: Mapping the Precipitation Type Distribution over the Contiguous United States using NOAA/NSSL National Multii-Sensor Mosaic QPE, I*EEE Geoscience and Remote Sensing,* **53** (8), 4434-4443, doi: 10.1109/TGRS.2015.2399015

Chen S, H. Liu, Y. You, **E. Mullens**, J. Hu, Y. Yuan, et al., 2014: Evaluation of High-Resolution Precipitation Estimates from Satellites during July 2012 Beijing Flood Event Using Dense Rain Gauge Observations. *PLoS ONE* **9**(4). doi:10.1371/journal.pone.0089681

Farnsworth, A., **E. D. White**, C. J. R. Williams, E. Black, and D. R. Kniveton, 2011: Understanding the large-scale driving mechanisms of rainfall variability over Central Africa. African Climate and Climate Change, C. J. R. Williams and D. R. Kniveton (Eds). *Advances in Global Change Research,* **43**, 101-122, doi: 10.1007/978-90-481-3842-5_5

(d) Synergistic Activities

Mentoring:

Primary advisor to one Ph.D student, one masters student, and three undergraduate students, with service on six student committees. Former co-mentor for a summer research experience for three undergraduate (REU) during 2015 and 2016. Primary mentor for a senior capstone project (3 students) in Meteorology, Fall 2014-Spring 2015. Primary organizer and facilitator of South-Central Climate Adaptation Science Center (SC-CASC) Journal Club group for graduate students and early-career professionals (2015-16). Assistant planner for 2018 Early-Career Researcher training, facilitated by SC-CASC and Louisiana State University.

Outreach:

Member of AGU's Thriving Earth Exchange. Trainer and Facilitator in a SC-CASC-developed climate projections training session at the 2017 National Adaptation Forum. Booth organizer and participant in STEM outreach activities at EPSCoR women in science day, Tulsa, OK, 2015, and GIS day, Norman, OK, 2014, 2015. 'Weather Friend' at the National Weather Festival, 2009-12.

Teaching and Course Development

Primary developer of Synoptic Meteorology, Atmospheric Physics, and Climate Science courses to grow the University of Florida's program in meteorology and climatology. Formerly implemented curriculum and materials for and introductory atmospheric science course at Rose State community college. Participated as guest speaker for a module of global climate modeling for 'Managing for a Changing Climate' - a hybrid format course first offered at the University of Oklahoma and now adapted for the University of Florida.

Professional and Leadership

Member, American Meteorological Soc. Board of Higher Education (2020-), chapter co-author (Southern Great Plains) for the USGCRP 4th National Climate Assessment. Collaborator, NSF-PREEVENTS 'PREC2IP' project collaborator (PI Martin, OU), 2017-present. NSF-Sponsored American Meteorological Society Summer Policy Colloquium Fellow, Washington, D.C., 2013. Graduate Student Senate, University of Oklahoma: Secretary (2010-11), executive committee (2009-11), Senator (2009-12). Member, Atmospheric and Geographic Sciences Environmental Stewardship committee (2010-11), IT technology fees committee (2010-11), OU Graduate Council (2010-11). Participant, Oklahoma Scholar Leadership Enrichment Program, 2007. Toastmasters International (2016-18), American Meteorological Society (2008-), American Geophysical Union (2016-), Royal Meteorological Society (2007-11), American Association of State Climatologists (2016-), American Association of Geographers (2019-).

Awards

Best student poster, AMS 6th Annual Symposium on Policy and Socio-economic research, 2011. Recipient of undergraduate departmental scholarship for academic achievement, University of Reading, 2004.

Stephen Mullens
Assistant Instructional Professor
University of Florida
330 Newell Dr., Gainesville, FL 32611
stephen.mullens@ufl.edu

(a) Professional Preparation

University of Oklahoma	Norman, OK	B.S.	Meteorology, 2008
University of Oklahoma	Norman, OK	M.S.	Meteorology, 2010

(b) Appointments

University of Florida, Assistant Instructional Professor, 2019 – present.

University of Florida, Adjunct Assistant Professor, 2018 – 2019.

Developed new courses covering meteorology, forecasting, atmospheric dynamics and thermodynamics, and geoscience communication. Incorporated small teaching and ungrading techniques into existing meteorology courses to improve long-term material recall and creative learning. Coordinated department web and social media activity.

Cooperative Institute of Mesoscale Meteorological Studies, Research Assistant I, 2014 – 2018.

Developed and delivered new training courses and operational tools to help National Weather Service forecasters and their partners address the science, technology, communication, and human factors challenges of the severe weather warning process. Authored national-level training on best practices of using social media by NWS weather forecast offices. Worked with a team of instructors to train operational forecasters through in-residence training workshops covering five days, giving routine feedback on their performance. Worked with teams of instructors to design and implement gamification training experiences for operational forecasters to actively learn and improve their severe and winter weather forecasting. Worked with a team of instructors on a two-year train-the-trainer course for a Japanese private meteorology company to improve their use of radar tools in severe weather environments.

National Disaster Preparedness Training Center, Instructor, 2016-2018.

Delivered training courses on the physical science, communication, and resulting impacts of tornadic and winter weather to emergency managers, police, fire, school administrators, government officials, and other organizations. Gave feedback during hands-on activities and routinely answered questions on the material.

Mid-American Christian University, Adjunct Faculty, 2013-2014.

Delivered online meteorology course aimed at non-traditional adult online learners. Course was taught through reading and writing assignments that emphasized personal experiences and applications with the material.

University of Oklahoma OUTREACH, Adjunct Faculty, 2012-2014.

Taught subcollege level algebra courses to prepare students to fulfill their college required courses. Courses covered the same material offered by two-year colleges, but in a four-year university environment.

Oklahoma City Community College, Adjunct Faculty, 2011-2014.

Taught physical science and subcollege level mathematics courses in a two-year college environment.

Rose State College, Adjunct Faculty, 2010-2014.

Taught physical science and subcollege level mathematics courses in a two-year college environment. Worked with a faculty member to develop their Associate's degree to assure students could transfer as a junior into the geosciences program at a nearby 4-year university.

University of Oklahoma, Graduate Research Assistant, 2008-2010.

Atmospheric Radiation Measurement Program, Data Quality Assistant, 2007-2008.

(c) Publications

Mullens, S., 2022: *Meteorological Factors Predicting Atlantic TC Name Retirement*, 35th Conference on Hurricanes and Tropical Meteorology, New Orleans, LA, Amer. Meteor. Soc.

Mullens, S., 2019: *Advancing NWS Messaging and Social Media*, 44th National Weather Association Annual Meeting, Huntsville, AL.

Mullens, S., 2017: *Using a Twitter Simulator for Training, IDSS, and R2O*, 4th Conf. on Weather Warnings and Communication, Kansas City, MO, Amer. Meteor. Soc., J2.3, https://ams.confex.com/ams/45BC4WXCOMM/webprogram/Paper318272.html

Mullens, S., 2015: *How Individuals Assess Risk*, Warning Decision Training Division, Accessed: 18 March 2019, https://training.weather.gov/wdtd/courses/woc/core/crisis-comms-sm/risk-assess/presentation.html

Mullens, S., 2015: *Communicating Risk in a Warning Environment*, Warning Decision Training Division, Accessed: 18 March 2019, https://training.weather.gov/wdtd/courses/woc/core/crisis-comms-sm/risk-comm/presentation.html

Mullens, S., 2015: *Social Media: Routine Operations*, Warning Decision Training Division, Accessed: 18 March 2019, https://training.weather.gov/wdtd/courses/woc/core/crisis-comms-sm/sm-routine/presentation.html

Mullens, S., 2015: *Social Media: Significant Events*, Warning Decision Training Division, Accessed: 18 March 2019, https://training.weather.gov/wdtd/courses/woc/core/crisis-comms-sm/sm-significant/presentation.html

Mullens, S., 2014: *Increasingly Undulatory Jet Streams*, 26th Conf. on Climate Variability and Change, Atlanta, GA, Amer. Meteor. Soc., 61, https://ams.confex.com/ams/94Annual/webprogram/Paper235411.html

(d) Synergistic Activities

- Have prior teaching experience in mathematic and scientific areas at two-year and four-year institutions, and am familiar with the challenges experienced by the student body populations at both institutions.
- Have prior experience creating training materials for operational forecasters in both the government and private sectors, and am familiar with the challenges experienced by forecasters in both sectors.
- Am part of a team of faculty developing a proposal for a new meteorology major at the University of Florida. Development of the major involves developing curriculum that is new to the university, but will be certified by the American Meteorological Society.
- Developed "Explanation Assignments," in which students attempt to explain broad concepts that were discussed in class in their own words. Completed in the "discussions" portion of the learning management system, students can view and learn from their peers after submitting their answer. Used online live interactive quizzing platform to help students engage with material in Extreme Weather course.
- Served as session chair of the 2013 and 2014 American Meteorological Society Student Conferences.
- Member of the American Meteorological Society and National Weather Association.

Curriculum Vitae.

Yixin Wen
Yixin.wen@ufl.edu

a. Professional Preparation

East China Normal University, Shanghai	Ecology	B.S., 2006
University of Oklahoma, Oklahoma	Geoinformatics	M.S., 2012
University of Oklahoma, Oklahoma	Meteorology	Ph.D., 2015
NOAA NSSL, Oklahoma	Hydrometeorology	2015
NASA/Jet Propulsion Laboratory, California	Remote Sensing	2015-2017

b. Appointments

Jan. 2022 – Assistant Professor, Geography, University of Florida
Nov. 2017 – Dec. 2021 Research Scientist, NOAA/National Severe Storms Laboratory

c. Publications

1. **Y. Wen**, T. Schurr, C. Kuster and H. V. Vergara, 2021, Effect of Precipitation Sampling Error on Flash Flood Monitoring and Prediction: Anticipating Rapid-Update Weather Radars, *J. Hydrometeor*, doi: https://doi.org/10.1175/JHM-D-19-0286.1
2. Z. Li, **Y. Wen**, M. Schreier, A. Behrangi, Y. Hong, B. Lambrigtsen, 2020, Advancing Satellite Precipitation Retrievals with Data Driven Approaches: Is Black Box Model Explainable? *Earth and Space Science*, doi: 10.1029/2020EA001423
3. **Y. Wen**, A. Behrangi, H. Chen and B. Lambrigtsen, 2018, Remote Sensing of Atmospheric Rivers Precipitation: Was the January 2018 California Excessive Rainfall and Snowfall Event Detectable by Global Satellite Observing and Ground Weather Radar Network? *Q. J. R. Meteorol. Soc.* doi:10.1002/qj.3253
4. **Y. Wen**, Q. Cao, P.-E. Kirstetter, Y. Hong, J. J. Gourley, J. Zhang, G. Zhang, B. Yong, 2013: Incorporating NASA Spaceborne Radar Data into NOAA National Mosaic QPE System for Improved Precipitation Measurement: A Physically Based VPR Identification and Enhancement Method. *J. Hydrometeor*, **14**, 1293–1307. doi: http://dx.doi.org/10.1175/JHM-D-12-0106.1.
5. **Y. Wen**, Y. Hong, G. Zhang, T. J. Schuur, J. J. Gourley, Z. L. Flamig, K. R. Morris, and Q. Cao, 2011: Cross validation of spaceborne radar and ground polarimetric radar aided by polarimetric echo classification of hydrometeor types. *J. Appl. Meteor. Climatol.*, **50**, 1389-1402, doi: 10.1175/2011JAMC2622.1.

d. Collaborators & Other Affiliations

(i)Collaborators

B. Lambrigtsen, NASA/Jet Propulsion Laboratory
Yang Hong, Civil Engineering and Environmental Science, University of Oklahoma
J.J. Gourley, NOAA/National Severe Storms Laboratory

(ii) Graduate and Postdoctoral Advisors.

- Postdoctoral Research Associate: Erica Griffin
- Student: Taozhong Huang, Zhi Li

JPL summer interns, Barry Martinez (2016 Summer), Gabriela Martinez (2017 Summer)

f. Research Impacts

Research built a bridge between NASA and NOAA instruments to achieve high quality and high resolution precipitation data.

Research demonstrates the most advanced weather radar in the application of flash flooding early warning.

Research improved the USDM early warning product.

Kevin D. Ash, Assistant Professor
Department of Geography, University of Florida
3141 Turlington Hall, Gainesville, FL 32611
Email: kash78@ufl.edu; Phone: 352-294-6956
Google Scholar Profile

Professional Preparation

Univ. of Oklahoma	Norman, OK	Geography	BA 2004
Univ. of Florida	Gainesville, FL	Geography	MS 2010
Univ. of South Carolina	Columbia, SC	Geography	PhD 2015
Univ. of South Florida	Tampa, FL	Geography	Postdoc 2015-2017
Nat'l Center for Atmospheric Research	Boulder, CO	Interdisciplinary	Postdoc 2017-2018

Appointments

Assistant Professor	University of Florida	2018-present
Postdoctoral Fellow	National Center for Atmospheric Research	2017-2018
Postdoctoral Fellow	University of South Florida	2015-2017
Graduate Research Assistant	University of South Carolina	2010-2015
Graduate Teaching Assistant	University of Florida	2009-2010
GIS Technician	FL Integrated Science Center, USGS	2008-2009
Voyage Planning & Risk Comm.	Weathernews, Inc., Norman, OK	2004-2008

Most Relevant Publications for UF Meteorology Program

Demuth, J.L, J. Vickery, H. Lazrus, J. Henderson, R.E. Morss, and **K.D. Ash**, 2022. Rethinking Warning Compliance and Complacency by Examining how People Manage Risk and Vulnerability during Real-world Tornado Threats, *Bulletin of the American Meteorological Society,* accepted for publication, DOI: https://doi.org/10.1175/BAMS-D-21-0072.1.

Ash, K.D., M.J. Egnoto, S.M. Strader, W.S. Ashley, D.B. Roueche, K.E. Klockow-McClain, D. Caplen, and M. Dickerson, 2020. Structural Forces: Perception and Vulnerability Factors for Tornado Sheltering Within Mobile and Manufactured Housing in Alabama and Mississippi, USA. *Weather, Climate, and Society*, 12(3): 453-472.

Strader, S.M., **K. Ash**, E. Wagner, and C. Sherrod, 2019. Mobile home evacuation vulnerability and emergency medical service access during tornado events in the Southeast United States. *International Journal of Disaster Risk Reduction*, 38, Article 101210. DOI: 10.1016/j.ijdrr.2019.101210.

Saunders, M.E., **K.D. Ash**, and J.M. Collins, 2018. Usefulness of the United States National Weather Service Radar Display as Rated by Website Users, *Weather, Climate, and Society*, 10(4): 673-691.

Schumann III, R.L., **K.D. Ash**, and G.C. Bowser, 2018. Tornado Warning Perception and Response: Integrating the Roles of Visual Design, Demographics, and Hazard Experience. *Risk Analysis*, 38(2): 311-332. DOI: 10.1111/risa.12837.

Ash, K.D., 2017. A Qualitative Study of Mobile Home Resident Perspectives on Tornadoes and Tornado Protective Actions in South Carolina, USA. *GeoJournal*, 82(3): 533-552. DOI: 10.1007/s10708-016-9700-8.

Ash, K.D., R.L. Schumann III, and G.C. Bowser, 2014. Tornado Warning Trade-offs: Evaluating Choices for Visually Communicating Risk. *Weather, Climate, and Society*, 6(1): 104-118. DOI: 10.1175/WCAS-D-13-00021.1.

Ash, K.D., and C.J. Matyas, 2012. The influences of ENSO and the subtropical Indian Ocean Dipole on tropical cyclone trajectories in the southwestern Indian Ocean. *International Journal of Climatology*, 32(1): 41-56. DOI: 10.1002/joc.2249.

Other Significant Publications

Han, Y., **K. Ash**, L. Mao, and Z.R. Peng, 2020. An agent-based model for community flood adaptation under uncertain sea-level rise, *Climatic Change*, 162(4): 2257-2276.

Hassan, M.M., **K. Ash**, J. Abedin, B.K. Paul, and J. Southworth, 2020. A Quantitative Framework for Analyzing Spatial Dynamics of Flood Events: A Case Study of Super Cyclone Amphan, *Remote Sensing*, 12(20), 3454, 1-26.

Cutter, S.L., **K.D. Ash**, and C.T. Emrich, 2016. Urban-Rural Differences in Disaster Resilience. *Annals of the American Association of Geographers*, 106(6): 1236-1252. DOI: 10.1080/24694452.2016.1194740.

Cutter, S.L., **K.D. Ash**, and C.T. Emrich, 2014. The Geographies of Community Disaster Resilience. *Global Environmental Change*, 29: 65-77. DOI: 10.1016/j.gloenvcha.2014.08.005.

Ash, K.D., S.L. Cutter, and C.T. Emrich, 2013. Acceptable Losses? The Relative Impacts of Natural Hazards in the United States, 1980-2009. *International Journal of Disaster Risk Reduction*, 5: 61-72. DOI: 10.1016/j.ijdrr.2013.08.001.

Ward, S.M., C.T. Emrich, **K. Ash**, and R. Schumann, 2012. Research-Based Decision Support in Hazard Mitigation: Louisiana Northshore Flood and Hurricane Protection. *Risk, Hazards & Crisis in Public Policy*, 3(3): 38-68. DOI: 10.1002/rhc3.11.

Synergistic Activities

- Professional Memberships: American Association of Geographers; American Meteorological Society; Cartography & Geographic Information Society; International Research Committee on Disasters; National Weather Association

- Instructor for undergraduate and graduate courses: Weather, Climate, & Society; Natural Hazards; GIS Analysis of Hazard Vulnerability; Population Geography; Human Geography (2016-2022)

- Advised or served on 20 graduate student thesis and dissertation committees on topics related to hazards/disasters, GIS, meteorology, and climate change adaptation (2016-2022)

- Proposal Reviewer, Social and Behavioral Sciences, NOAA VORTEX Research Program (2016, 2021)

- Manuscript referee for 20 journals ranging across the disciplines of Geography, Meteorology, Emergency/Disaster Management, Risk Communication, Sustainability Science, and Environmental Science (2011-2022)

Johanna C. L. Engström
Department of Geography
University of Florida

Professional Preparation

Lund University	Sweden	Physical Geography	B.Sc., 2009
Lund University	Sweden	Physical Geo. and Ecosystems Analysis	M.Sc., 2011
University of Florida	Gainesville, FL	Geography	Ph. D. 2017
University of Alabama	Tuscaloosa, AL	Civil and Env. Engineering	2019-2020

Appointments

2021 - present	Assistant Professor, University of Florida, Department of Geography, Gainesville, FL
2020-2021	Assistant Professor, Embry Riddle Aeronautical University, Department of Applied Aviation Science, Daytona Beach, FL
2019-2020	Postdoctoral Researcher, University of Alabama, Department of Civil and Environmental Engineering, Tuscaloosa, AL
2017-2019	Geospatial Services Manager, University of Alabama, Department of Geography, Tuscaloosa, AL
2011-2012	Wind Power consultant, Sweco, Malmö, Sweden

Relevant Products

1. Engström, J., Praskievicz, S., Bearden, B., & Moradkhani, H. (August, 2021) Drought in the Southeast U.S. as observed by the GRACE satellites. *Water Policy.* Available from: https://iwaponline.com/wp/article/23/4/1017/82425/Decreasing-water-resources-in-Southeastern-U-S-as doi: 10.2166/wp.2021.039
2. Keellings, D. & Engström, J. (February, 2019). The Future of Drought in the Southeastern U.S.: Projections from Downscaled CMIP5 Models. *Water.* 11(2), 259. Available from: https://www.mdpi.com/2073-4441/11/2/259 doi: 10.3390/w11020259
3. Engström, J., & Waylen, P. (February, 2018). Drivers of long-term precipitation and runoff variability in the southeastern USA. *Theoretical and Applied Climatology*, 131 (3-4), 133-1146 Available from: https://link.springer.com/article/10.1007/s00704-016-2030-4 doi: 10.1007/s00704-016-2030-4
4. Engström, J. & Waylen, P. R. (May, 2017). The changing hydroclimatology of Southeastern United States. *Journal of Hydrology*, *548*, 16-23 Available from: https://www.sciencedirect.com/science/article/pii/S002216941730118X doi: 10.1016/j.jhydrol.2017.02.039
5. Engström, J. & Uvo, C. B. (October, 2015). Effect of Northern Hemisphere Teleconnections on the Hydropower Production in Southern Sweden. *Journal of Water Resources Planning and Management*, 142(2), 05015008 Available from: https://ascelibrary.org/doi/full/10.1061/%28ASCE%29WR.1943-5452.0000595 doi: 10.1061/(ASCE)WR.1943-5452.0000595.

Other Significant Products

1. Engström, J., Jafarzadegan, K., & Moradkhani, H. (July, 2020). Drought Vulnerability in the United States: An Integrated Assessment. *Water*, *12*(7), 2033. Available from: https://www.mdpi.com/2073-4441/12/7/2033 doi: 10.3390/w12072033

2. Deb, P., Moradkhani, H., Abbaszadeh, P., Kiem, A. S., Engström, J., Keellings, D., & Sharma, A. (November, 2020). Causes of the widespread 2019–2020 Australian bushfire season. *Earth's Future*, *8*(11), e2020EF001671. Available from: https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020EF001671 doi: 10.1029/2020EF001671
3. Engström, J. & Keellings, D. (March, 2018). Drought in the Southeastern U.S.: An Assessment of downscaled CMIP5 models. *Climate Research.* 74 (3), 251-262. Available from: https://www.int-res.com/abstracts/cr/v74/n3/p251-262/ doi: 10.3354/cr01502
4. Haque, U., Blum, P., da Silva, P.F., Andersen, P., Pilz, J., Chalov, S.R., Malet, J.P., Auflič, M.J., Andres, N., Poyiadji, E., Lamas, P.C., Zhang, W., Pesevski, I., Pétursson, H.G., Kurt, T., Dobrev, N., Davalillo, J.C.G., Halkia, M., Ferri, S., Gaprindashvili, G., Engström, J., Keellings, D. (May, 2016). Fatal Landslides in Europe. *Landslides.*13 (6), 1545-1554 Available from: https://link.springer.com/article/10.1007/s10346-016-0689-3 doi: 10.1007/s10346-016-0689-3
5. Keellings, D., Engström, J., & Waylen, P. (February, 2015). The sunshine state: investigating external drivers of sky conditions. *Physical Geography*, *36*(2), 113-126. Available from: https://www.tandfonline.com/doi/full/10.1080/02723646.2015.1004995 doi: 10.1080/02723646.2015.1004995.

Synergistic Activities
1. Organizer of GIS Day at the University of Alabama 2017 and 2018. Full day events bringing together academia and industry to explore the latest in Geospatial Technology applications, foster collaborations, and present career opportunities for students.
2. Developed the class "The Future of Energy", a general education class aimed at undergraduate students at the University of Florida.

Collaborators and Co-Editors
Peyman Abbaszadeh (Princeton University); Mojtaba Barzehkar (Tallinn University of Technology); Bennett Bearden (Alabama Geological Survey); Erin Bunting (Michigan State University); Proloy Deb (University of Alabama); Deirdre Dragovich (University of Sydney); Keighobad Jafarzadegan (University of Alabama): David Keellings (University of Florida): Anthony Kiem (University of Newcastle); Hamid Moradkhani (University of Alabama); Kevin Parnell (Tallinn University of Technology); Sarah Praskievicz (University of North Carolina Greensboro); Ashish Sharma (University of New South Wales); Tarmo Soomere (Tallinn University of Technology); Ryan Wallace (Embry Riddle Aeronautical University); Peter Waylen (University of Florida).

Total number of Collaborators and Co-Editors: 16

Advisors and Postdoctoral Sponsors
Cintia Bertacchi Uvo, Finnish Environment Institute
Hamid Moradkhani, University of Alabama
Peter Waylen, University of Florida (retired)

Total graduate advisors and postdoctoral sponsors: 3

David Keellings
Assistant Professor
Geography, University of Florida

Google Scholar Profile: https://scholar.google.com/citations?user=csl4r44AAAAJ&hl=en

Professional Preparation

University of Central Florida, USA	Environmental Studies	B.Sc. (Hon), 2007
University of Florida, USA	Geography	M.S., 2010
University of Florida, USA	Geography	Ph.D., 2015
University of Florida, USA	Geography & Emerging Pathogens Institute	Postdoc, 2015-2016

Appointments

Assistant Professor – Department of Geography, University of Florida, 2021-present

Assistant Professor – Department of Geography, University of Alabama, 2016-2021

Postdoctoral Associate – Department of Geography & Emerging Pathogens Institute, University of Florida, 2015-2016

Relevant Publications

Keellings D., Moradkhani H. (2020). Spatiotemporal Evolution of Heat Wave Severity and Coverage Across the United States. Geophysical Research Letters. 47, e2020GL087097. Doi: 10.1029/2020GL087097

Keellings D., Hernández Ayala J. (2019). Extreme rainfall associated with Hurricane Maria over Puerto Rico and its connections to climate variability and change. Geophysical Research Letters. 46(5), 2964-2973. doi: 10.1029/2019GL082077

Keellings, D, Engström, J. (2019). The Future of Drought in the Southeastern U.S.: Projections from Downscaled CMIP5 Models. Water. 11(2), 259. doi: 10.3390/w11020259

Keellings D. (2016). Evaluation of downscaled CMIP5 model skill in simulating daily maximum temperature over the southeastern United States. International Journal of Climatology. doi:10.1002/joc.4612

Keellings D., Waylen P. (2014). Increased Risk of Heat Waves in Florida: Characterizing Changes in Bivariate Heat Wave Risk using Extreme Value Analysis. Applied Geography, 46, 90-97. doi:10.1016/j.apgeog.2013.11.008

Other Significant Publications

Skeeter, W.J., Senkbeil, J.C., Keellings, D. (2019). Spatial and Temporal Changes in the Frequency and Magnitude of Intense Precipitation Events in the Southeastern United States. International Journal of Climatology. 39: 768-782. doi: 10.1002/joc.5841

Engström, J., & Keellings, D. (2018). Drought in the Southeastern USA: an assessment of downscaled CMIP5 models. Climate Research. 74(3), 251-262. doi:10.3354/cr01502

Keellings, D., Bunting, E., & Engström, J. (2018). Spatiotemporal changes in the size and shape of heat waves over North America. Climatic Change. 147(1-2), pp.165-178. doi:10.1007/s10584-018-2140-3

Hernández Ayala J.J., Keellings D., Waylen P., Matyas C. (2017). Extreme Floods and their Relationship with Tropical Cyclones in Puerto Rico. Hydrological Sciences. doi: 10.1080/02626667.2017.1368521

Keellings D, & Waylen P. (2015). Investigating teleconnection drivers of bivariate heat waves in Florida using extreme value analysis. Climate Dynamics, 44(11-12), 3383-3391. doi:10.1007/s00382-014-2345-8

Relevant Synergistic Activities

Teaching - I encourage independent learning, especially in my upper level undergraduate and graduate classes where students are able to apply techniques from the advanced coursework to their own research ideas and create publishable work in tandem with coursework. In my Introduction to Geostatistics Using R course students are required to conduct a semester project in which they execute an analysis of climate/environmental data in R, write a report, and present findings to the class. The class is very much hands-on and focuses on experiential learning through weekly labs that lead students through writing code to complete specific analysis tasks, including machine learning, using real data. I also actively encourage code sharing, group thinking, and focus my lectures on tutorials that I have written to accompany the week's lab assignment. Student projects undertaken in this course have led to numeorus peer-reviewed research publications.

Service and Outreach - I have taught a four-week online class on the science of climate change (with emphasis on extreme events such as heat waves) to adults over the age of 50 as a volunteer lecturer for the Osher Lifelong Learning Institute through the University of Alabama. I am a great believer in lifelong learning and this course has been an excellent way to transfer knowledge on climate science to members of the public.

Joann Mossa, Ph.D.
Department of Geography, P.O. Box 117315, University of Florida, P.O. Box 117315, Gainesville, FL 32611

Phone: (352)-294-7510 E-mail: mossa@ufl.edu
Google Scholar: https://scholar.google.com/citations?hl=en&user=PQUnq2UAAAAJ

RESEARCH INTERESTS

- Fluvial and Coastal Geomorphology, Sediments, Human Impacts and Historical Analysis, Lowland and Disturbed River Floodplains, River Restoration, Fluvial-Coastal interactions, Fluvial and Coastal Hazards, Floods and Droughts

PROFESSIONAL HISTORY

- *Professor (also Associate & Assistant) Professor*, Department of Geography, University of Florida, Gainesville, Florida, Acting Chair intermittently, 1990 - present
- *Undergraduate Coordinator,* 1999 to 2017, Dept. of Geography, University of Florida
- *Affiliate Faculty,* Dept. of Geological Sciences, Hydrologic Sciences Cluster, Interdisciplinary Ecology
- *Visiting Professor,* Sichuan University, Chengdu, China, Summer 2014
- *Consultant*, Publishers, Governmental Agencies, Attorneys, and Private Sector Engineering Firms, 1985-present
- *Visiting Faculty Scientist,* Coastal Engineering Research Center, Waterways Expt. Station, Vicksburg, MS, Summer 1991
- *Research Associate III-IV*, Louisiana Geological Survey, Coastal Geol. Program, Baton Rouge, LA, January 1983 – 1990
- *Instructor,* Department of Mathematics, Louisiana State University, Baton Rouge, LA, 1982
- *Graduate Assistant (Research and Teaching*), Dept. of Geography, LSU, Baton Rouge, LA, 1980-82

EDUCATION

- *Ph.D*., Geography (Fluvial and Coastal Geomorphology), Louisiana State University, August 1990
- *M.S*., Geography, Louisiana State University, December 1983
- *B.A.,* Mathematics/Geography, Rutgers University, New Brunswick, NJ, May 1980 (Phi Beta Kappa & Phi Kappa Phi)

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

- 1st Place, Most Downloaded Paper in Annals of GIS for 2019 (2nd author, led by Ph.D. Graduate C.-Y. Wu)
- 2nd Place, Most Cited Paper in Annals of GIS for 2019 (2nd author, led by Ph.D. Graduate C.-Y. Wu)
- NSF Hydrolearn Fellow, 2020, co-created module on Hydrologic Droughts and Drying Rivers
- President and Past President of SEDAAG, 2017-2021, Southeastern Div. of the American Assoc. of Geographers
- UF Term Professor, 2018-2021
- Recipient of the R.J. Russell Award for 2018, Coastal and Marine Specialty Group, 2018
- Co-facilitator, Geography Faculty Development Alliance (GFDA), Knoxville, TN, 2017
- CLAS Evening of Excellence, Outstanding Teaching/Advisor Achievement recognition, 2017
- Consultant for Northern Territories Government, Australia to evaluate geomorphic problems, Finke River basin, 2016
- Lifetime Achievement Award, Department of Geography, first recipient, 2016
- Associate Editor, *Physical Geography*, 2013-present (formerly Editorial Board, 2011-2013)
- Worked with South Florida Water Management District on one of the world's largest river restoration projects, the Kissimmee River. In 1998-99 developed restoration expectations and did geomorphic monitoring in 2006-12.
- Recipient of advising awards, CLAS faculty advisor of the year, 2012; University faculty advisor of the Year, 2012
- Guest Editor, Special Issue of *Zeitschrift fur Geomorphologie*, 2002
- President and Meeting/Program Coordinator, Florida Society of Geographers, 2001 and 2020
- Panelist, National Science Foundation, Geography and Regional Science Program, 1998-2000
- Chair and Vice-Chair, Geomorphology Specialty Group, Assoc. of American Geographers, 1998-2000
- Chair and Vice-Chair, Coastal and Marine Geography Spec. Group, Assoc. of American Geographers, 1994-1998
- President and Vice President, Phi Beta Kappa, University of Florida, Beta Chapter of Florida, 1996-98
- Awarded University of Florida Teaching Award, 1994 and 1998
- Served on Editorial Board *of Southeastern Geographer* (7 years + 3 years) and *Journal of Geography* (3 years)

GRADUATE STUDENT SUPERVISION

- Current (Enrolled): Chair of 3 Ph.D. committees, Member of 7 Ph.D. and 3 M.S. committees
- Past (Graduates): Chair of 10 Ph.D. and 24 M.S. committees, Member of 32 Ph.D. and 26 M.S. committees

SELECTED PUBLICATIONS

- Mossa, J., Chen, Y.-H., (2022). Geomorphic response to historic and ongoing human impacts in a large lowland river, Earth Surface Processes and Landforms, https://doi.org/10.1002/esp.5334
- Wu, C. Y., Mossa, J., Jaeger, J. (2022). Estimate of decadal-scale riverbed deformation and bed-load sediment transport during flood events in the lowermost Mississippi River, Earth Surface Processes and Landforms, https://doi.org/10.1002/esp.5316
- Mossa, J., Chen, Y.-H, (2021). Geomorphic insights from eroding dredge spoil mounds impacting channel morphology, *Geomorphology*, 376, 16 pp, https://www.sciencedirect.com/science/article/pii/S0169555X20305444
- Mossa, J., Chen, Y.H., Kondolf, G.M., & Walls, S.P. (2020). Channel and vegetation recovery from dredging of a large river in the Gulf coastal plain, USA. *Earth Surface Processes and Landforms* 45, 1926–1944, DOI: 10.1002/esp.4856.
- Amanambu, A. C., Obarein, O. A., Mossa, J., Li, L., Ayeni, S. S., Balogun, O., ... & Ochege, F. U. (2020). Groundwater System and Climate Change: Present Status and Future Considerations. *Journal of Hydrology*, 125163, https://doi.org/10.1016/j.jhydrol.2020.125163.
- Chen, Y.H., Mossa, J., & Singh, K.K. (2020). Floodplain response to varied flows in a large coastal plain river. *Geomorphology*, 354, https://doi.org/10.1016/j.geomorph.2020.107035.
- Wu, C.-Y., Mossa, J., 2019. Decadal-scale variations of thalweg morphology and riffle–pool sequences in response to flow regulation in the lowermost Mississippi River. *Water* 11(6), 1175, https://doi.org/10.3390/w11061175.
- Wu, C.-Y., Mossa, J., Mao, L., and Abdulla, M., 2019. Comparison of different spatial interpolation methods for historical hydrographic data of the lowermost Mississippi River, *Annals of GIS*, 25(2), 133-151, https://doi.org/10.1080/19475683.2019.1588781
- Mossa, J., Chen, Y.-H., Walls, S.P., Kondolf, G.M., Wu, C.-Y. (2017) Anthropogenic landforms and sediments from dredging and disposing sand along the Apalachicola River and its floodplain, *Geomorphology,* v. 294: 119-134, http://www.sciencedirect.com/science/journal/aip/0169555X
- Castillo, D., Kaplan, D., & Mossa, J. (2016). A Synthesis of Stream Restoration Efforts in Florida (USA). *River Research and Applications*. 32(7), 1555–1565, DOI: 10.1002/rra.3014
- Prado Jr., F.A., Athayde, S., Mossa, J., Leite, F., Bohlman, S., Oliver-Smith, A. 2016. How Much is Enough? How much is enough? An integrated examination of energy security, economic growth and climate change related to hydropower expansion in Brazil. *Renewable and Sustainable Energy Reviews*, 53, 1132-1136, //doi.org/10.1016/j.rser.2015.09.050.
  Mossa, J. 2016. The changing geomorphology of the Atchafalaya River, Louisiana: A historical perspective. *Geomorphology*, 252, 112-127. http://dx.doi.org/10.1016/j.geomorph.2015.08.018
- Brim-Box, J., and Mossa, J., 1999, Sediments, land use, and freshwater mussels: Prospects and problems: *Journal of the North American Benthologists Society*, v. 18(1), pp. 99-117, http://www.jstor.org/stable/1468011.
- Mossa, J. & McLean, M.B., 1997, Channel planform and land cover changes on a mined river floodplain: Amite River, Louisiana, USA: *Applied Geography*, v. 17(1): 43-54, http://dx.doi.org/10.1016/S0143-6228(96)00026-4.
- Mossa, J., 1996, Sediment dynamics of the lowermost Mississippi River: *Engineering Geology*, v. 45, pp. 457-479, http://dx.doi.org/10.1016/S0013-7952(96)00026-9.

FUNDED PROJECTS

- **As PI or co-PI:** *Current:* US EPA-Gulf of Mexico Program, $262,204; *Completed*: Joint (USGS./USACE./Pat Harrison Waterway District/Miss. Nature Conservancy): $161,674, Federal: USGS-Mineral Resources Program (1: $43,000); USGS-National Biological Service (2: $31,250, $2,500);USGS-National Biological Service (2: $31,250, $2,500); U.S. Army Waterways Experiment Station: $14,690; NOAA/U.S. Department of Commerce: $36,000; National Aeronautics and Space Administration: $453,000, Minerals Management Service (3: $600,000; $27,250; $18,018); State/Water Management Districts: Florida Fish and Wildlife Conservation Comm.: $206,134; Florida Space Institute: $29,973 Florida Institute for Phosphate Research: $382,000; IFAS (2:$12,800; $62,400), St. Johns Water Mgmt. District (6: $210,00; $75,000; $60,000; $35,000; $24,000; $23,925, $121,538); South Florida Water Mgmt. District (5: $33,320; 161,000, $58,000, $66,700; $17,837); Florida Dept. of Transportation: $78,481; Louisiana Department of Natural Resources (4: $62,500; $65,000; $170,000; $170,000), Louisiana Transportation Research Center: $169,483; Other: AAG-NSF-EDGE: $500, Association of American Geographers: $350; UF Div. of Sponsored Research (5: $18,290; $4859; $15,580; $5400; $1700); Tinker Foundation-UF Latin American Studies: $1500; **As co-Investigator:** National Science Foundation IGERT, M.T. Brown and S. Russo, co-PIs (1:$3,294,120); CAPES (1: R$305,448)

NSF BIOGRAPHICAL SKETCH

NAME: Serafin, Katherine A.

POSITION TITLE & INSTITUTION: Assistant Professor, University of Florida

(a) PROFESSIONAL PREPARATION -(see PAPPG Chapter II.C.2.f.(a))

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Connecticut College	New London, CT	Environmental Studies	BA	2008
Oregon State University	Corvallis, OR	Ocean, Earth, and Atmospheric Sciences	MS	2013
Oregon State University	Corvallis, OR	Ocean, Earth, and Atmospheric Sciences	PHD	2017
Stanford University	Stanford, CA	Geophysics	Postdoctoral Fellow	2018 - 2019

(b) APPOINTMENTS -(see PAPPG Chapter II.C.2.f.(b))

2019 - present Assistant Professor, University of Florida, Department of Geography, Gainesville, FL

2019 - 2020 Visiting Scholar, Stanford University, Department of Geophysics, Stanford, CA

2018 - 2019 Postdoctoral Researcher, Stanford University, Department of Geophysics, Stanford, CA

(c) PRODUCTS -(see PAPPG Chapter II.C.2.f.(c))

Products Most Closely Related to the Proposed Project

1. Serafin K, Ruggiero P, Stockdon H. The relative contribution of waves, tides, and nontidal residuals to extreme total water levels on U.S. West Coast sandy beaches. Geophysical Research Letters. 2017 February 18; 44(4):1839-1847. Available from: https://onlinelibrary.wiley.com/doi/10.1002/2016GL071020 DOI: 10.1002/2016GL071020
2. Serafin K, Ruggiero P, Barnard P, Stockdon H. The influence of shelf bathymetry and beach topography on extreme total water levels: Linking large-scale changes of the wave climate to local coastal hazards. Coastal Engineering. 2019 August; 150:1-17. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0378383918302539 DOI: 10.1016/j.coastaleng.2019.03.012
3. Kasmalkar I, Serafin K, Miao Y, Bick I, Ortolano L, Ouyang D, Suckale J. When floods hit the road: Resilience to flood-related traffic disruption in the San Francisco Bay Area and beyond. Science Advances. 2020 August 05; 6(32):-. Available from: https://www.science.org/doi/10.1126/sciadv.aba2423 DOI: 10.1126/sciadv.aba2423
4. Serafin K, Ruggiero P. Simulating extreme total water levels using a time-dependent, extreme value approach. Journal of Geophysical Research: Oceans. 2014 September; 119(9):6305-6329. Available from: http://doi.wiley.com/10.1002/2014JC010093 DOI: 10.1002/2014JC010093
5. Bick I, Santiago Tate A, Serafin K, Miltenberger A, Anyansi I, Evans M, Ortolano L, Ouyang D, Suckale J. Rising Seas, Rising Inequity? Communities at Risk in the San Francisco Bay Area and Implications for Adaptation Policy. Earth's Future. 2021 July 12; 9(7):-. Available from: https://onlinelibrary.wiley.com/doi/10.1029/2020EF001963 DOI: 10.1029/2020EF001963

Other Significant Products, Whether or Not Related to the Proposed Project

1. Erikson L, Espejo A, Barnard P, Serafin K, Hegermiller C, O'Neill A, Ruggiero P, Limber P, Mendez F. Identification of storm events and contiguous coastal sections for deterministic modeling of extreme coastal flood events in response to climate change. Coastal Engineering. 2018 October; 140:316-330. Available from: https://linkinghub.elsevier.com/retrieve/pii/S037838391730532X DOI: 10.1016/j.coastaleng.2018.08.003
2. Parker K, Ruggiero P, Serafin K, Hill D. Emulation as an approach for rapid estuarine modeling. Coastal Engineering. 2019 August; 150:79-93. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0378383918305532 DOI: 10.1016/j.coastaleng.2019.03.004
3. Mills A, Bolte J, Ruggiero P, Serafin K, Lipiec E, Corcoran P, Stevenson J, Zanocco C, Lach D. Exploring the impacts of climate and policy changes on coastal community resilience: Simulating alternative future scenarios. Environmental Modelling & Software. 2018 November; 109:80-92. Available from: https://linkinghub.elsevier.com/retrieve/pii/S136481521731099X DOI: 10.1016/j.envsoft.2018.07.022
4. Cohn N, Ruggiero P, García-Medina G, Anderson D, Serafin K, Biel R. Environmental and morphologic controls on wave-induced dune response. Geomorphology. 2019 March; 329:108-128. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0169555X18305221 DOI: 10.1016/j.geomorph.2018.12.023
5. Serafin K, Ruggiero P, Parker K, Hill D. What's streamflow got to do with it? A probabilistic simulation of the competing oceanographic and fluvial processes driving extreme along-river water levels. Natural Hazards and Earth System Sciences. 2019 July 16; 19(7):1415-1431. Available from: https://nhess.copernicus.org/articles/19/1415/2019/ DOI: 10.5194/nhess-19-1415-2019

(d) SYNERGISTIC ACTIVITIES -(see PAPPG Chapter II.C.2.f.(d))

1. Developed "Living with Rising Seas" an undergraduate course for the new general education curriculum which examines the complex relationship between people and coastlines by asking “How can humanity adapt to sea level rise?”
2. Presented "Sea level rise and Florida’s changing coastline" to the Oak Hammock Institute of Learning in Retirement Spring 2021 course “Climate Change – What does it mean for Floridians?”
3. Selected as the 2021 UF Early Career Florida Climate Institute Faculty Fellow for contributions to interdisciplinary climate research, extension, and education programs
4. Invited US CLIVAR Phenomena, Observations, and Synthesis (POS) panelist on "Coastal Extreme Events and Climate", July 2020
5. Session Co-Chair & Moderator, Linking Nearshore and Onshore Sediment Transport Processes and Geomorphic Responses: Insights From Observational and Modeling Studies, American Geophysical Union Fall Meeting 2021

NAME: Moulay Anwar Sounny-Slitine

POSITION TITLE & INSTITUTION: Assistant Instructional Professor, Geography University of Florida

A. PROFESSIONAL PREPARATION - (see PAPPG Chapter II.C.2.f.(i)(a))

INSTITUTION	LOCATION	MAJOR/AREA OF STUDY	DEGREE (if applicable)	YEAR (YYYY)
University of Texas	Austin, Texas	Geography	B.A.	2007
University of Texas	Austin, Texas	Civil Engineering	B.S.C.E.	2007
University of Texas	Austin, Texas	Geography	M.A.	2013
University of Texas	Austin, Texas	Geography	Ph.D.	2021

B. APPOINTMENTS - (see PAPPG Chapter II.C.2.f.(i)(b))

From - To	Position Title, Organization and Location
Aug 2017 – Present	Assistant Instructional Professor, University of Florida, Gainesville, FL
Oct 2011 – Aug 2017	Instructor, Southwestern University, Georgetown, TX
Jan 2012 – Aug 2017	Assistant Instructor, University of Texas, Austin, TX
Apr 2009 – Dec 2011	Associate Director of GISc Center, University of Texas, Austin, TX

C. PRODUCTS - (see PAPPG Chapter II.C.2.f.(i)(c)) Products Most Closely Related to the Proposed Project

- Sounny-Slitine, M. A., Alexander, J., Twomey, K., O'Rourke, J., Hershaw, E., & Moorhead, S. (2011) Adaptation to Climate Change. Portal (6) LLILAS: Austin, TX.
- Hudson, P.F., Sounny -Slitine, M.A., & LaFevor, M. (2013) Geomorphic controls on hydrologic connectivity along the Lower Mississippi River. Hydrological Processes 27 (15), 2187–2196
- Sounny-Slitine, M.A. (2011) Energy/Climate Change - Challenges and Opportunities. São Paulo: Secretaria do Meio Ambiente

D. Other Significant Products, Whether or Not Related to the Proposed Project

- Laturbesse, E., & Sounny-Slitine, M. A. (2022). Chaco Megafans. In J. Wilkinson & Y. Gunnell (Eds.), *Fluvial Megafans on Earth and Mars*. essay, Cambridge University Press.
- Sounny-Slitine, M. A., Tasker, K. A., Doubleday, K. F., Polk, M.F., Knight, B.R., & Schneider C. (2015) On Making and Becoming a Graduate. *The Southwestern Geographer* (18) C1-C3
- Rudow, J. and Sounny -Slitine, M.A. (2014) The use of video blogs for instruction of GIS and other digital geographic methods. Journal of Geography
- Long, J., Sounny-Slitine, M. A., Castles, K., Curran, J., Glaser, H., Hoyer, E., Moore, W., Morse, L., O'Hara, M., & Parafina, B. (2013). Toward an applied methodology for price comparison studies of farmers' markets and competing retailers at the local scale. *Journal of Agriculture, Food Systems, and Community Development.*
- Sounny-Slitine, M.A. (2012) Green Power. *Encyclopedia of Energy*, Edited by Morris A Pierce, Salem Press: Pasadena, CA.
- Sounny-Slitine, M.A. and Bensalem, S. (2012) Energy Geography of Morocco. *Encyclopedia of Energy*, Edited by Morris A Pierce, Salem Press: Pasadena, CA.
- Tretter, E., Sounny -Slitine, M.A. (2013) Austin Restricted: Progressivism, Zoning, Private Racial Covenants, and the Making of a Segregated City. Institute for Urban Policy Research and Analysis – Special Report – The University of Texas at Austin
- Sounny-Slitine,M.A. (2011), "Solar Power Potential on the University of Texas Campus" 2nd Annual UT Campus Sustainability Symposium, the President's Sustainability Steering Committee, The University of Texas at Austin

Brenda Betancourt

Department of Statistics, University of Florida
Gainesville, FL 32611 USA
E-mail: bbetancourt@ufl.edu
web page: https://people.clas.ufl.edu/bbetancourt/

EDUCATION

University of California, Santa Cruz (UCSC)
Ph.D., Statistics and Applied Mathematics, September 2015
Dissertation Title: Modeling and Prediction of Dynamic Binary Networks
Advisor: Abel Rodríguez

University of Puerto Rico, San Juan, PR (UPR-RP)
Master of Science, Statistics, 2008

National University of Colombia, Bogota, Colombia
Bachelor of Science, Statistics, 2005

POSITIONS

Assistant Professor, Department of Statistics, *University of Florida* (August 2018-present)

Foerster-Bernstein Postdoctoral Fellow, *Duke University* (August 2016-July 2018)
Postdoctoral Associate, *Duke University* (September 2015-July 2016)
Mentor: Rebecca C. Steorts

ACADEMIC SERVICE

Referee for journals: *Journal of the American Statistical Association, Annals of Applied Statistics, Journal of Computational and Graphical Statistics, Bayesian Analysis, Journal of Machine Learning Research, Biostatistics, Biometrics, Journal of Survey Statistics and Methodology, Statistics and Public Policy.*

NSF panel reviewer for the Division of Mathematical Sciences (DMS), 2019 and 2020.

Board Member, Junior Section of International Society for Bayesian Analysis (j-ISBA), 2018-2020

Reviewer for the student paper competition of the Section on Bayesian Statistical Science (SBSS) of the American Statistical Association (ASA), 2018 and 2019

Reviewer for workshop papers: Practical Bayesian Nonparametrics, BNP@NIPS 2016; All of Bayesian Nonparametrics BNP@NIPS 2018.

Area chair for Women in Machine Learning Conference (WiML), 2018.

AWARDS AND HONORS

Foerster-Bernstein Postdoctoral Fellowship for women in STEM fields, Duke University (2016 - 2018)

Travel award to 11th Conference on Bayesian Nonparametrics, Paris, France (2017)

Travel award to 11th Women in Machine Learning Workshop, Barcelona, Spain (2016)

Diversity Scolarship for The R User Conference funded by the Women in Quantitative Sciences Initiative and the useR Organizing Committee, Stanford University (2016)

NSF Travel award to XIII Latin American Congress of Probability and Mathematical Statistics, Cartagena, Colombia (2014)

Travel award to Women in Statistics Conference, Cary, NC (2014)

Travel award to EFaB@Bayes250 Workshop: First meeting ISBA Section on Economics, Finance & Business, Duke University, NC (2013)

Travel award to 8th Workshop on Bayesian Nonparametrics, Veracruz, Mexico (2011)

Chancellor's Fellowship. University of California, Santa Cruz (2010-2011)

Honor Roll. University of Puerto Rico (2007-2008)

Honor Roll. Universidad Nacional de Colombia (2002-2004)

BIBLIOGRAPHY

Refereed Papers

1. Lin, Q., **Betancourt, B.**, Goldstein, B.A., Steorts, R.C. (2020). Prediction of Appointment No-shows using Electronic Health Records. In press in *Journal of Applied Statistics*.
2. **Betancourt, B.**, Rodríguez, A., Boyd, N. (2020). Modeling and Prediction of Financial Trading Networks: A case study in the NYMEX natural gas futures market. Accepted in *Journal of Royal Statistical Society, Series C, Vol. 69 (1), pp 195-218.*
3. **Betancourt, B.**, Rodríguez, A., Boyd, N. (2017). Bayesian Fused Lasso regression for dynamic binary networks. *Journal of Computational and Graphical Statistics, Vol. 26 (4), pp 840-850.*
4. **Betancourt, B.**, Rodríguez, A., Boyd, N. (2017). Investigating Competition in Financial Markets: A sparse autologistic model for dynamic network data. *Journal of Applied Statistics, Vol. 45 (7), pp 1157-1172.*
5. Fúquene, J., **Betancourt, B.**, Pereira, J. B. M. (2017). A weakly informative prior for Bayesian dynamic model selection with applications in fMRI. *Journal of Applied Statistics, Vol. 45 (7), pp 1173-1192.*
6. **Betancourt, B.**[1], Zanella, G., Wallach, H., Miller, J., Zaidi, A. and Steorts, R. (2016). Flexible Models for Microclustering with Applications to Entity Resolution, *Advances in Neural Information Processing Systems (NIPS), Vol. 29, pp 1417-1425.*
7. Miller, J.W., **Betancourt, B.**, Zaidi, A., Walach, H., Steorts, R. (2015). The Microclustering Problem: When the Cluster Sizes Don't Grow with the Number of Data Points. *NIPS Bayesian Nonparametrics: The Next Generation Workshop Series.*

[1]Giacomo Zanella and Brenda Betancourt are joint first authors.

8. Fúquene, J., **Betancourt, B.**, Vega, J. (2011). Heavy tailed priors: An alternative to non-informative priors in the estimation of proportions on small areas. *Biometrics Brazilian Journal, v.29, n.3, pg 520-533.*

Invited Papers

1. **Betancourt, B.**, Steorts, R. (2018). Bayesian Decision Making with Application to Resource Allocation. *Wiley StatsRef: Statistics Reference Online (eds N. Balakrishnan, T. Colton, B. Everitt, W. Piegorsch, F. Ruggeri and J. L. Teugels).*

Submitted and Preprints

1. **Betancourt, B.**, Zanella, G., Steorts, R. (2020+). Random Partition Models for Microclustering Tasks. Submitted.

2. Kaplan, A., **Betancourt, B.**, Steorts, R. (2020+). Posterior Prototyping: Bridging the Gap between Bayesian Record Linkage and Regression. *arXiv preprint arXiv:1810.01538.*

3. Valle, D., Jameel, Y., **Betancourt, B.** (2020+). Bayesian Clustering Using the Truncated Stick Breaking Prior. Submitted.

4. Ruiz, C.P., Toledo, C., Sanchez J.L., **Betancourt, B.** (2020+). Impact of Climate Change on Growth of Acropora cervicornis in Puerto Rico. Submitted.

GRANT SUPPORT

co-PI: *Streaming Record Linkage for Online Data Deduplication.* Subcontract from North Carolina State University Laboratory for Analytic Sciences, 2020-2021. PIs: Andee Kaplan, Brenda Betancourt.

co-PI: *Posterior Prototyping: Bridging the Gap between Record Linkage and Regression.* Subcontract from North Carolina State University Laboratory for Analytic Sciences, 2019-2020. PIs: Andee Kaplan, Brenda Betancourt and Rebecca Steorts.

ORAL PRESENTATIONS

Random Partition Models for Microclustering tasks, Invited session for Bayes Comp, Gainesville, FL., January 2020.

Bayesian Fused Lasso Regression for Dynamic Binary Networks, Invited paper for Computing Making Impact: The Best of JCGS session, Joint Statistical Meeting, Denver, CO., July 2019.

Modeling and prediction of dynamic networks, Invited Speaker for XXIX International Symposium of Statistics, Barranquilla, Colombia, July 2019.

Exchangeable sequences of clusters for microclustering tasks, Invited Session for VI Latin-American Meeting on Bayesian Statistics (COBAL VI), Lima, Peru, June 2019.

Introduction to record linkage modeling, Invited Speaker for International seminar on data editing, imputation and non–response, CIMAT, Guanajuato, Mexico, October 2017.

Models for Microclustering with Applications to Entity Resolution, Invited Session for V Latin-American Meeting on Bayesian Statistics (COBAL V), Guanajuato, Mexico, June 2017.

Why Popular Bayesian Nonparametric Methods Fail for Sparse Clustering Tasks, oral presentation at Joint Statistical Meetings, Chicago, IL, August 2016.

Bayesian Fused Lasso regression for dynamic binary networks, Invited Session for Workshop Celebrating Diversity at SIAM Annual Meeting, Boston, MA, July 2016.

Invited Departmental Seminars

Microclustering Models for Record Linkage Tasks
- Virginia Tech, Department of Statistics, Blacksburg, VA., December 2017
- University of Florida, Department of Statistics, Gainesville, FL., December 2017
- University of Massachusetts, Department of Statistics, Amherst, MA., December 2017
- University of California at Davis, Department of Statistics, Davis, CA., November 2017

Invited Short Courses

Introduction to Record Linkage and its Applications, XXIX International Symposium of Statistics, Barranquilla, Colombia, July 2019

Some of Record Linkage
- US Census Bureau, May 2018.
- Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico, February 2018.

TEACHING EXPERIENCE

Instructor, University of Florida

- STA 6166 Statistical Methods in Research I (Fall 2018, Spring 2019, Fall 2019)

Instructor, Duke University

- STA 30 Statistics and Quantitative Literacy (Fall 2015)

Graduate Student Instructor, UCSC

- AMS 7L Laboratory for Statistical Methods for the Biological, Environmental, and Health Sciences (Spring 2014)

Teaching Assistant, UCSC

- AMS 7 Statistical Methods for the Biological, Environmental, and Health Sciences (Spring 2013, Summer 2013, Winter 2014, Summer 2014, Winter 2015)
- AMS 5 Statistics with Emphasis on Applications to the Natural and Social Sciences (Winter 2012)

Teaching Assistant, UPR

- Mathematics Immersion (Summer 2008, Summer 2009)

Graduate Student Instructor, UPR (2007-2010)

- Math 3105 Appreciation of Mathematics (3 semesters)
- Math 3001 Introductory Mathematics I (3 semesters)

UF UNIVERSITY of FLORIDA

College of Medicine
Psychiatry

Curriculum Vitae

Czerne M. Reid, PhD

PO Box 100256; 1149 Newell Drive, L4-100, Gainesville, FL 32610
Email: czerne@ufl.edu Phone: (352) 294-4921 Fax: (352) 392-9887

Education

Graduate Certificate, Science Communication, University of California, Santa Cruz, Santa Cruz, CA	2004
Ph.D., Environmental Chemistry, Emory University, Atlanta, GA	2003
M.Sc., Environmental Chemistry, Emory University, Atlanta, GA	2002
B.Sc., Chemistry (Upper 2nd Class Honors – analogous with Magna Cum Laude), University of the West Indies, Mona, St. Andrew, Jamaica, West Indies	1993

Current Academic Appointments

Senior Lecturer, Psychiatry Department, UF College of Medicine	2021 – present
Program Director, Online Grad. & Certificate Programs, Psychiatry, UF COM	2016 – present
Affiliate Faculty, Journalism Department, UF College of Journalism and Communications	2019 – present
Adjunct Lecturer, Journalism Department, UF College of Journalism and Communications	2013 – present

Other Positions and Employment

Independent Science Editor, *Science News*	2020 – present
Independent Science Journalist (*National Geographic* and other outlets)	2019 – present
Science writer/editor/assistant director, UF Health Communications	2008 – 2013
Science/Health/Business/Education Reporter, The State newspaper, Columbia, SC	2004 – 2008
News/Science Writing Intern (Stanford, Salinas Californian, Milwaukee Journal Sentinel)	2003-2004

Certifications

Editor in the Life Sciences (ELS) certified by Board of Editors in the Life Sciences (BELS)	2011 – present

Scholarly Editorial/Review Activities

Editor, Proceedings of the National Academy of Sciences of the United States of America (PNAS) special issue on Advancing the Science and Practice of Science Communication: Misinformation about Science in the Public Sphere	2019 – 2021
Peer Reviewer, Public Understanding of Science interdisciplinary journal	2021 – 2022
Grant reviewer, European Research Council	2015 – 2017

Current Professional Memberships and Activities

Assoc. of Health Care Journalists, American Assoc. for the Advancement of Science, American Medical Writers Assoc., Natl. Assoc. of Science Writers (Co-chair, Ed Comm)

Selected Honors and Awards

National Association of Science Writers, Diane McGurgan Award for service excellence	2018
UF Warrington College of Business Entrepreneurship Faculty Fellow	2018
UF Health/CTSI Educational Scholarship Prog: Educator & Educational Innovator Awards	2016
University of Florida College of Medicine Exemplary Teacher Award, 2014-2015	2015
South Carolina Press Association - Best Newspapers Contest	2008, 2009
South Carolina Medical Association Excellence in Print Journalism Award	2009, 2007, 2006
Henry J. Kaiser Family Foundation Kaiser Media Fellowship	2007
Council for the Adv. of Science Writing: Rennie Taylor/Alton Blakeslee Grad Fellowship	2004

Committee Assignments and Service Activities

University of Florida (current): Faculty Senate, University Curriculum Committee, University Libraries Committee (former chair), Library Leadership Board, UF Health Career and Professional Dev. Working Group Science Writing Career Interest Team	
Committee on Sci & Tech Engagement with the Public (CoSTEP), American Association for the Advancement of Science (AAAS)	Term 2021 – 2024
Co-organizer (with Dietram Scheufele, Liz Neely, William Hallman, Andrew Hoffman), 2019 Colloquia of the National Academy of Sciences: *Advancing the Science and Practice of Science Communication: Misinformation about Science in the Public Sphere*	2018 – 2019

Co-organizer & co-moderator, Pre-conference on Latin America & the Caribbean at World Conference of Science Journalists 2017 (WCSJ17) 2017

Educational Activities	**Role**	**Time Frame**
Department of Journalism, UF College of Journalism & Communications:		
MMC 6936/MMC 6905 Science Writing	Creator, faculty, director	2020 to present
JOU 4304/JOU 4930 - Science Journalism	Creator, faculty, director	2013 to present
JOU 3101 Reporting	Guest lecturer	Spring 2012
UF Health Office of Interprofessional Education: Putting Families First class for first-year students in all six UF Health colleges	Faculty	2016-present
Department of Psychiatry, UF College of Medicine:		
Online Education	Program director	2014 – present
5 ugrad courses: MDU4003 Intro Professions of Med, MDU4004 Physician Shadowing, MDU4031 Med & the Law, MDU4061 Medical Bioethics, MDU4850 Diseases of Eating	Course co-director	2014 – 2021
Prof. Certif. Autism Spectrum Disorder-4 courses	Co-creator, co-director	March 2017 – present
Grad Certif. Addiction & Recovery-6 courses	Co-creator, co-director	August 2013 – present
Mentor/Guest Lecturer activities:		
UF MCB4934 Exploring Career Opp - (Micro)Bio	Guest Lecturer	Spring 2012
Univ. of S. Carolina, Grad. Career Dev. Course	Guest Lecturer	2011, 2009
ComSciCon-SciWri ScienceWriters Workshop	(Lead) Editor, mentor	2019-2021
Natl Assoc of Science Writers Mentoring Progs.	Co-lead, editor, mentor	2010 – present

Grants and Contract Awards

Principal Investigator (PI) (Multiple PI grant with Martha Brown, MD), Substance Abuse and Mental Health Services Admin., via State of FL Dept. of Children and Families, RFP072319DSET1, Medical College Curriculum Dev. and Implementation for Florida's State Opioid Response grant, $250,000, Sept. 2019

Selected Publications and Presentations

1. Scheufele, D.S., Hoffman, A.J., Neely, L, **Reid, C.M.** Misinformation about science in the public sphere. *Proc Natl Acad Sci USA.* April 13, 2021, 118 (15) e2104068118. https://doi.org/10.1073/pnas.2104068118
2. **Reid, C.M.** Dialogues and Discourse on Science and Society. John Muir Institute of the Environment and World Food Center, University of California, Davis. Nov. 4, 2019, Davis, CA
3. **Reid, C.M.** *Colleges of Medicine: Extending reach through online education and educational technology.* American Distance Education Consortium EdFuture 2016, Sept. 22-23, 2016, UCLA, Los Angeles, CA.
4. **Reid, C.M.**, *Adventures in Online Education: Opportunities for Teaching, Collaboration and Advancement*. UF Department of Psychiatry Grand Rounds, Sept. 9, 2016, Gainesville, FL.
5. **Reid, C.M.**, Hobbs, JA, Setlow, B, Bussing, R. *Online education: Opportunities for teaching, collaboration, funding and advancement*. 169th Amer. Psychiatric Assoc. Annual Mtg, May 14-18, 2016, Atlanta, GA USA.
6. **Reid, C.M.**, *Meet the Press … Sharing science with the public.* European Research Council of the European Commission. March 4, 2015, Brussels, Belgium.

Selected Symposia/Workshops – National/International/Local Meetings and Events

1. Speaker, *Clear, Compelling, Accurate Science Reporting*. National Science Health Environment Reporting Fellowships Bootcamp, Aug 18, 2021, Virtual
2. Speaker, *Find Your Story and Hone your pitch*. June 2020, University of California, Davis.
3. National Association of Science Writers Annual Meetings (2010-present):
   Speaker, co-organizer. *#OneMinute- /*#SciWriMentoring (DC, San Antonio, State College)
   Organizer, speaker: *From Star Trek to the Big Bang Theory: Science goes Hollywood*. Gainesville, FL.
   Speaker: *Can I see that before it runs? Source influence in science writing*. Research Triangle Park, NC.
   Co-organizer: *Great Science Writing Part I: From Eureka! moment to book*. New Haven, CT.

Science Writing/Creative Works: More than 160 articles written for publications and outlets including: *National Geographic*, *The Washington Post*, *Science Writers Magazine*, *CR Magazine*, *The Milwaukee Journal Sentinel*, *The State* newspaper (Columbia, S.C.), University of Florida, UF Health, *Stanford Report*, *Stanford Medical Center Report*

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Department of Agricultural and Biological Engineering
University of Florida, Gainesville, FL 32611 USA
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Professional Preparation
A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

University of Delaware	Newark, DE	Engineering Technology	B.S. 1997
The Pennsylvania State University	University Park, PA	Agricultural and Biological Engineering	M.S. 2011
The Pennsylvania State University	University Park, PA	Agricultural and Biological Engineering	Ph.D. 2018

(b) Appointments
Assistant Professor, Agricultural Operations Management, University of Florida, 2022 - present
Extension-Research Assistant, Animal Welfare, Pennsylvania State University, 2015 - 2022
Research Assistant, Manure Pit Safety, Pennsylvania State University, 2012 - 2015
Instructor, Power Transmission, Pennsylvania State University, Fall 2011
Graduate Assistant, Pennsylvania State University, 2010 - 2011
Lead Engineer, Nutrient Control Systems, Inc., 2003 - 2009
Agricultural Machinery Specialist, McLanahan Corporation, 1999 - 2003
Precision Ag Specialist, Royster-Clark, 1998 - 1999
Research Assistant, University of Delaware, 1997 - 1998

(c) Publications

1. **Hofstetter, D.**, Fabian, E., & Lorenzoni, A. G. (2021). Ammonia Generation System for Poultry Health Research Using Arduino. Sensors, 21(19), 6664. https://doi.org/10.3390/s21196664
2. Poholsky, C.M., **Hofstetter, D.W.**, Khezrimotlagh, D., and Boney, J.W. (2021). Effects of pellet quality to on-farm nutrient segregation in commercial broiler houses varying in feed line length. J Journal of Applied Poultry Research, 30(2), 100157. DOI:10.1016/j.japr.2021.100157
3. Chen, L., Fabian-Wheeler, E. E., Cimbala, J. M., **Hofstetter, D.**, & Patterson, P. (2021). Computational Fluid Dynamics Analysis of Alternative Ventilation Schemes in Cage-Free Poultry Housing. Animals, 11(8), 2352. https://doi.org/10.3390/ani11082352
4. Fabian-Wheeler, E., **Hofstetter, D.**, Larson, R., Aguirre-Villegas, H., & Betz, C. R. (2020). Model Multilayered Website for Varied Audiences: Dairy Sustainability "Virtual Farm". Journal of Extension, 58(3), v58-3tt6.
5. Chen, L., Fabian-Wheeler, E. E., Cimbala, J. M., **Hofstetter, D.**, and Patterson, P. (2020). Computational Fluid Dynamics Modeling of Ventilation and Hen Environment in Cage-Free Egg Facility. Animals 2020, 10(6), 1067; https://doi.org/10.3390/ani10061067
6. Fabian, E.F., M.L. Hile, D.J. Murphy, D. Hill, R.C. Brandt, H. Elliott, R. Bryant and **D. Hofstetter**. 2017. Operator exposure to hydrogen sulfide from dairy manure storages containing gypsum bedding. Journal of Agricultural Safety and Health, 23(1), 9-22.

7. Murphy, D.J., Manbeck, H.B., **Hofstetter, D.W.**, and Puri, V.M., 2017. Online CAD/CFD-based design tool to assess ventilation strategies to reduce confined-space entry risk. Chemical Engineering Transactions, 58. DOI:10.3303/CET1758001
8. Manbeck, H.B., **D.W. Hofstetter**, D.J. Murphy, and V.M. Puri. 2016. Online design aid for evaluating manure pit ventilation systems to reduce entry risk. Frontiers in Public Health, 4, 108. DOI:10.3389/fpubh.2016.00108

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Professor of Geology
University of Florida

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University of Florida
Gainesville, FL 32611-2120

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eemartin@ ufl.edu

Education

1993 Ph.D., Oceanography, Scripps Institution of Oceanography, University of California, San Diego
1987 M.S., Geology, Duke University, Durham, North Carolina
1981 B.A., Earth Science, Wesleyan University, Connecticut

Employment

2016 – 2020	Co-Director of the Florida Climate Institute, UF and statewide
2009-present	Full Professor- Department of Geological Sciences, UF
2001– 2009	Associate Professor- Department of Geological Sciences, UF
1994–2001	Assistant Professor- Department of Geological Sciences, UF
1993-1994	Post-Doctoral Research Fellow- University of California, Santa Cruz
1987-1993	Research and Teaching Assistant- UCSD
1985-1987	Teaching Assistant- Duke University
1984-1985	Exploration Geologist- Harper Oil Company, Denver, Colorado
1981-1984	Exploration Geologist- Amoco Production Company, Denver, Colorado

Honors and Awards

Fellow of the Geological Society of America (2018-)
University of Florida Term Professorship (2018-2021)
Benjamin Meaker Visiting Professorship, Institute for Advanced Studies, University of Bristol, UK (March - April, 2018)
University of Florida Research Foundation (UFRF) Professor (2015-2017)
Florida Climate Institute Faculty Fellow, University of Florida (2013-2016)
Colonel Allan R. and Margaret G. Crow Term Professor (2009-2010)
Distinguished Slepecky Lecturer for Undergraduate Research, Syracuse University (2009)
Distinguished Lecturer, Consortium for Ocean Leadership (2007-2008)
Editors' Citation for Excellence in Refereeing for Paleoceanography (2004)
University of Florida Teaching Award (2000)
University of Florida Productivity Award (1999)
NSF CAREER Award (1997-2001)
NSF Earth Science Postdoctoral Research Fellowship (1993-1994)
ARCS Graduate Fellowship- Scripps Institution of Oceanography (1992-1993)

University Governance and Service

- Faculty Mentor- Amy Williams and Rob Hatfield (2019-)
- Chair, search and screen committee for Climate Change position (2019-2021)
- Geological Sciences Executive Committee (2019-)
- Chair, Geological Sciences, Diversity, Equity and Inclusion Committee (2019-)

- Faculty Advisor, student-run Sustainable Ocean Alliance at UF (2019-)
- Dean's Blue Ribbon Tenure & Promotion Criteria Evaluation Panel (2019)
- Member, UF Water Institute (2018-)
- CLAS Tenure and Promotion Committee (2018- 2021)
- CLAS Faculty Council (2018-2020)
- UF Quest Curriculum Committee (2018)
- Liaision, CLAS Diversity and Inclusion Steering Committee (2018-)
- Member, search and screen committee for Geochemistry position (2016-2018)
- Member, search and screen committee for FLMNH Micropaleo position (2016-2017)
- Chair, Geological Sciences Merit Review Committee (2015-2019)
- CLAS Diversity and Inclusion Steering Committee (2015- 2018)
- CLAS Nominating Committee (2014-2016)
- UF Environmental Science General Education Course Committee (2014)
- UF Graduate Council Committee review panel for PhD Mentor Awards (2013)
- Developed Climate Science Concentration with Florida Climate Institute(2012-2013
- Search Committee for CLAS Associate Dean (2012)
- Florida Climate Institute, Faculty Advisory Committee, (2012-)
- UF Graduate Council (2013-2016)
- CLAS Tenure and Promotion Committee (2011-2012)
- Member, search and screen committee for Thompson Chair Endowed Professorship, Florida Museum of Natural History (2011)
- Faculty Mentor, Andrea Dutton (2010-2019)
- CIMAS Fellow, Cooperative Institute for Marine and Atmospheric Sciences (2010-2017)
- Geological Sciences Visibility Committee (2010-2017)
- Florida Climate Institute, Steering Committee (2010-2013)
- CLAS Faculty Council (2010-2012)
- Chair, search and screen committee for Climate position (2009-2010)
- Member, search and screen committee for Geodynamics position (2007-2008)
- Member, search committee for Office Manager, Geological Sciences (2007)
- Associate Chair, Geological Sciences, University of Florida (2002 – 2007)
- UF Search Committee for Dean of Libraries (2006-2007)
- Chair, search committee for Program Assistant and Senior Secretary, Geol Sci (2006)
- Executive Committee for External Review, Geological Sciences (2005-2006)
- Travel Committee, College of Liberal Arts and Sciences (2004-2005)
- Laboratory host for the Annual Florida Junior Science, Engineering and Humanities Symposium (2004- 2013)
- UF Provost's General Education Foundation Courses Committee for Physical/Biological Sciences (2002-2003)
- Organizer, CLAS Graduate Women in Science Retreat (2002)
- Graduate Coordinator, Dept. of Geological Sciences, University of Florida (2001-2002)
- Member, search and screen committee for Geochemistry position, Department of Geological Sciences (2000-2001)
- Organizer, Women in Geoscience Meetings for Dept of Geological Sciences (1999-)
- Assistant Graduate Coordinator, Dept. of Geological Sciences, UF (1999 – 2001)

- Advisory Board of the University Center for Excellence in Teaching, (1998 - 2002)
- Academic Senate, University of Florida (1995-1996, 1997-1999)
- Minority Mentor- University of Florida (1997-1999)

Service to the Profession

- External Review Committee Member, Department of Geological and Atmospheric Sciences, Iowa State University (March 2020)
- Arctic Circle Assembly, participant, Reykjavik, Iceland (Oct. 2019)
- National Science Foundation Panel- Marine Geology and Geophysics (Nov.14-16, 2017)
- Panel member and speaker for Imaging Climate Change Conference, UF, Feb. 2016
- National Science Foundation Committee of Visitors for the 2015 review of the OCE Division (June, 2016)
- National Science Foundation Infrastructure Workshop, participant, Chicago (2014)
- External Review Committee Member, University of Kentucky, Earth and Environmental Sciences (February 2013)
- Review Panel to screen applicants for the 2013 Marine Geoscience Leadership Symposium sponsored by Ocean Leadership (January 30, 2013)
- External Review Committee Member, Kent State, Dept. of Geology (October 2011)
- Science Advisory Committee for International Congress on Paleoceanography, San Diego, CA (2010)
- National Science Foundation Panel- OCE Marine Geology and Geophysics (Nov. 16-19, 2009)
- Science Advisory Committee for "Past and Present Ocean Chemistry" session, Goldschmidt Conference, Davos, Switzerland, 2009
- National Science Foundation Panel- OCE Major Instrumentation and Facilities (May 14-15, 2007)
- Congressional Visit Day with the Coalition for National Science Funding as a representative for Joint Oceanographic Institutions (September, 2007)
- U.S. Science Advisory Committee (USSAC) for Joint Oceanographic Institutions-member (2004-2006)
- ODP (Ocean Drilling Program) Scientific Measurements Panel Member (2001-2003)
- National Science Foundation Committee of Visitors to review the Faculty Early Career Development Program (CAREER) (2001)
- Project Kaleidoscope- member (2000 -)
- National Science Foundation Panel- CAREER (Faculty Early Career Development) (2000)
- National Science Foundation POWRE (Professional Opportunities for Women in Research and Education) panel (1999)

Professional Affiliations

American Geophysical Union
Geological Society of American
Geochemical Society
National Association of Geoscience Teachers
Association for Women Geoscientists

Courses Taught
Introduction to Global Change (GLY1073)
Introduction to Oceanography (OCE1005)
Physical Geology (GLY2010)
Historical Geology (GLY2100)
Oceans and Global Climate Change (GLY3074)
Marine Geology (GLY5736)
Global Climate Change (GLY6075)
Field Geology of the Bahamas (GLY5786)
Sea Level Rise and Coastal Ecology (GLY6930)

Invited Talks
2020: * *Significance of Ice-Loss to landscapes in the Arctic: SILA (Inuit Spirit of Sky, Wind and Weather), Part 1*, Oak Hammock, Institute for Learning in Retirement, January 15, 2020.
2019: * *Challenges and benefits of collaborations between US and Greenlandic Researchers,* Arctic Circle Assembly, Reykjavik, Iceland, October 10, 2019.
2018: **Challenges in reconstructing seawater Nd and Pb isotopic records,* Imperial College, London, UK, April 5, 2018.
**Neglected Fluxes: Understanding the Evolution of Weathering as the Greenland Ice Sheet Retreats,* School of Erath Sciences, Bristol University, UK, March 22, 2018.
**Pb isotopes as tracers if chemical weathering in glacial regions,* IsoGlace workshop, Bristol University, UK, March 23, 2018.
2017: * *Neglected Fluxes: Understanding the Evolution of Weathering as the Greenland Ice Sheet Retreats,* GEUS, Danish Geological Survey, Copenhagen, Denmark, Oct. 5, 2017.
* *Neglected Fluxes: Understanding the Evolution of Weathering as the Greenland Ice Sheet Retreats,* Center for Permafrost, University of Copenhagen, Denmark, Oct.11.
* *Neglected Fluxes: Understanding the Evolution of Weathering as the Greenland Ice Sheet Retreats,* Dept. of Geology, Lund University, Sweden, Oct. 17, 2017.
* *Understanding the Role of Ocean Circulation in Global Climate Change: Past and Future,* Oak Hammock Retirement Community, Jan. 23, 2017
2016: **Weathering in Greenland: Why does it matter?* Marine and Coastal Sciences, Rutgers University, April 18, 2016.
**Sea Level Rise and the Future of Florida,* University Women's Club, UF, March, 17, 2016.
**The Day After Tomorrow: Using Past Ocean Circulation to Imagine the Future,* Imagining Climate Change Conference, UF, Feb. 18, 2016
**Imagining Climate Change* Plenary Session of the 5th Biennial Symposium of the UF Water Institute, Feb. 17, 2016.
**Weathering in Greenland: Why does it matter?* Retired Faculty, UF, Harn Museum, Jan. 20, 2016
2015: **Understanding ancient climate change and ice sheet retreat*, UF Coffee Talk for Contracts and Grants, March 2, 2015.
2014: **Detrital sources and water mass circulation in the tropical North Atlantic during the Late Cretaceous to Paleogene*, Fall Meeting AGU, San Francisco CA., Dec 15-19, 2014.

*****_Antarctic Weathering during the Middle Miocene Climatic Optimum and Climate Transition_, Goldschmidt Conference on Geochemistry, Sacramento, CA, June 12, 2014.

2013: * _Climate CSI: A geologist reports from Greenland's melting ice sheet_, Sciencewriters 2013, Gainesville, FL, Nov. 4, 2013.

*****_Ocean circulation and weathering: Interpreting climate feedbacks with radiogenic isotopes_, Florida State University, April 8, 2013.

*****_Ocean circulation and weathering: Interpreting climate feedbacks with radiogenic isotopes_, Texas A&M, April 29, 2013.

2011: * _Pb isotopes as a proxy for continental weathering_, "Assessing the history of the Greenland Ice Sheet through Ocean Drilling" workshop sponsored by the Consortium for Ocean Leadership, Corvallis OR, November 7-9, 2011.

2010: * _Circulation and carbon sequestration in the North Atlantic during the Late Cretaceous_, Duke University, April 2, 2010.

* _Why so Few- Where are the women in STEM disciplines?_ American Association of University Women meeting, Gainesville, Oct. 9, 2010.

* _Why so Few- A discussion of the recent AAUW report on women in STEM disciplines_, Department of Geological Sciences, UF, Oct. 28, 2010.

* _Why So Few- A discussion of the recent AAUW report on women in STEM disciplines_, Institute for Learning in Retirement Seminar Series on Women in Science, Oak Hammock, Nov. 5, 2010.

2009: * _Circulation in the North Atlantic during the late Cretaceous based on Nd isotopes_, Goldschmidt Conference on Geochemistry, Davos, Switzerland, June 2009.

* _Growth of Ice Sheets on Antarctica: Climate Change 40 million years ago_, Syracuse University Slepecky Lecture, April 21, 2009.

2008: * _Nd isotopes across Oceanic Anoxic Event 2 (Cenomanian/Turonian) in the Northern Tropical Atlantic_, University of Michigan, October 3, 2008.

* _Growth of Ice Sheets on Antarctica: Climate Change 40 million years ago_, Miami Science Museum, September 5, 2008.

* _Tales from Tiny Fish teeth: Carbon sequestration in the Late Cretaceous_, Vassar College, January 28, 2008.

* _Development of Cretaceous Oceanic Anoxic Event 2: Tales from tiny fish teeth_, University of New Hampshire, May 1, 2008.

* _Development of Cretaceous Oceanic Anoxic Event 2: Tales from tiny fish teeth_, University of Massachusetts, Amherst, May 2, 2008.

2007: * _Evolution of South Atlantic circulation following the opening of Drake Passage based on Nd isotopes_, 9th International Congress on Paleoceanography, Shanghai, September 5, 2007.

* _Bottom Water Circulation and the Development of OAE2: Tales from Tiny Fish Teeth_, UNC, Charlotte, October 19, 2007.

* _Bottom Water Circulation and the Development of OAE2: Tales from Tiny Fish Teeth_, University of Kentucky, October 25, 2007.

* _Development of Oceanic Anoxic Event 2 in the Cretaceous Based on Nd isotopes from Fossil Fish Teeth_, Northwestern University, October 26, 2007.

* _Evolution of South Atlantic circulation following the opening of Drake Passage based on Nd isotopes_, Yale University, November 12, 2007.

* _Development of Cretaceous Oceanic Anoxic Event 2 based on Nd isotopes in fossil fish teeth_, Wesleyan University, November 13, 2007.

2006: * *Bottom Water circulation and the development of OAE2*, American Geophysical Union International Meeting, San Francisco, California
2005: * *New insights into Atlantic sector paleoceanography from Nd isotopes*, American Geophysical Union International Meeting, San Francisco, California
* *Global warming and climate change*, Oak Hammock Seminar Series on Natural Disasters, Oak Hammock, Gainesville, Florida
2004: * *Tracking warm, saline deep water on Maud Rise using Nd isotopes*, American Geophysical Union International Meeting, San Francisco, California
2003: * *The opening of Drake Passage- A record from Nd isotopes preserved in fossil fish teeth*, Louisiana State University, Baton Rouge, Louisiana
2001: * *Seawater Nd isotopes: Recorders of ocean circulation and continental weathering*, University of Florida, Gainesville, Florida
1999: * *Active inquiry, web-based oceanography exercises*, Geological Society of America National Meeting, Denver, Colorado
1996: * *Nd isotopes in fish teeth as paleoceanographic indicators*, University of South Florida, St. Petersburg, Florida
* *Nd isotopes in fish teeth as paleoceanographic indicators*, University Florida, Gainesville, Florida
1994: * *Seawater Sr isotopes as a record of continental weathering*, University of Santa Cruz, California

Invited Workshops
2018: IsoGlace Workshop: Novel isotope systems in glaciated environments, Bristol University, UK, March 23, 2018.
2016: Antarctic's Cenozoic Ice and Climate History, International Ocean Discovery Program, Texas A&M, May 9-11, 2016.
2013: Exploring the Cretaceous Greenhouse through Scientific Drilling, London, May 15-17, 2013.
2011: Assessing the history of the Greenland Ice Sheet through Ocean Drilling Consortium for Ocean Leadership. Oregon State University, Corvalis, OR, November 7-9, 2011.
2009: Leader for NAGT (National Association of Geoscience Teachers) Preparing for an Academic Career in the Geosciences, workshop leader, University of Nevada, Las Vegas
2008: Leader for NAGT (National Association of Geoscience Teachers) Preparing for an Academic Career in the Geosciences, workshop leader, University of Oklahoma
2006: JOI/USSSP (Joint Oceanographic Institutions) Workshop: Tectonics, circulation, and climate in the Caribbean gateway, Austin, Texas
2005: JOI/USSSP (Joint Oceanographic Institutions) Workshop: Southern Ocean Synthesis, Boulder, Colorado
1999: JOI (Joint Oceanographic Institutes) COMPLEX, Conference for multi-platform exploration, ocean drilling post-2003, Vancouver, British Columbia
1998: National Science Foundation Workshop on "Effective teaching strategies", Williamsburg, Virginia

Post-Docs
- Madison Flint, 2021 -
- Tom Williams, 2018- 2021, now a Fellow at University of Tasmania

- Andrea Pain, 2018 – 2020, now an Assistant Professor at University of Maryland, Horn Point Marine Lab
- Kelly Deuerling, 2017, now an Assistant Professor at University of Wisconsin, Green Bay
- Carys Cook, 2013-2016, now working in Industry
- Amanda Waite, 2012- 2013, 2014-2016, now working for Angora Foundation, Miami, FL
- Keiji Horikawa, 2009-2010, now a Professor at Nagoya University, Japan

Graduate Students

- Jenifer Tatiana Salinas Reyes, started in 2021, PhD
- Paloma Olarte, started in 2019, PhD
- Megan Black, started in 2019, Water institute Graduate Fellow, PhD
- Shauna Flynn, 2018, MS, *Weathering During Glacial-Interglacial cycles based on Pb isotopes at Orphan Knoll, NW Atlantic*
- Masoud A. Rostami, 2018, *Development of Northern Component Water During the Latest Cretaceous,* MS
- Kelly Deuerling, 2016, *Continental Ice Sheet Retreat, Chemical Weathering, and Solute and Isotope Fluxes: Examples from Western Greenland*, PhD
- Andrea Portia, 2014, *Sediment Provenance in the Gulf of Mexico: A Test of the Regolith Hypothesis*, MS.
- Cecilia Scribner, 2014, *Exposure age and climate controls of weathering in deglaciated watersheds of Western Greenland*, MS.
- Pugh, Emily R., 2012, *Verification of water mass Nd isotopic signature in North Atlantic sediments during the Late Cretaceous*, MS.
- Newkirk, Derrick N., 2012, *The Impact of Climate Change and Tectonic Events on Ocean Circulation in the Miocene to Pliocene*, PhD.
- Basak, Chandranath, 2011, *Deep ocean circulation and continental weathering regimes during climate transitions using Sr, Nd, and Pb isotopes in sedimentary archives*, PhD.
- Sergio Restrepo, 2008, *Long-term morphotectonic evolution and denudation chronology of the Antiqueño Plateau, Central Cordillera*, Columbia, PhD.
- Bourbon, Elodie, 2008, *Nd isotopes throughout the North Atlantic in the late Cretaceous and across Ocean Anoxic Event 2*, MS.
- Newkirk, Derrick R., 2007, *A Nd isotopic study of ocean circulation during the middle to late Miocene carbonate crash*, MS.
- Blair, Susanna W., 2006, *Nd isotopes: Investigation of Cretaceous Ocean Anoxic Event 2 and a systematic study of Fe-Mn oxide coatings*, MS.
- Scher, Howie D., 2005, *Paleogene deep water circulation in the Atlantic sector of the Southern Ocean revealed from Nd isotopes*, PhD.
- Haase, Alisa A., 2001, *Variations in Nd isotopes of the Eastern Indian Ocean: Implications for changing weathering, ocean circulation, and eolian inputs during the Cenozoic*, MS.
- Haley, Brian A., 1998, *Nd and Sr in fossil fish teeth*, MS.

Undergraduate Students

- Christina Bennett, 2022- Research Assistant
- Emily An, 2019-2022. Research Assistant, Undergraduate Senior Thesis/University Scholar: *Variability in chemical weathering in southwest Greenland based on Sr isotopes of stream waters and sediments*
- Jamie Good, 2018-, Research Assistant
- Sydney Beim, 2017- 2018, Research Assistant
- Hailey Hall, 2017- 2018, Research Assistant
- Maria Pulgar, 2017- , Research Assistant, University Scholar
- Philip Ackerman, 2017-2019, Co-author on a published paper.
- Fabio DePrat, 2016- , Research Assistant, Undergraduate thesis/University Scholar: *Weathering in the Greenland Foreland of Southern and Western Greenland*
- Blayke Polselli, 2016-2017, Research Assistant, Undergraduate thesis: *Tracking Provenance of Sediments in the Kattegat Region of the Baltic Sea using Strontium, Lead and Neodymium Isotopes*
- Cheyenne Everhart, 2014-2016, Research Assistant, Undergraduate thesis/University Scholar: *Implications for the Extent of Weathering in Greenland Moraine Sequences Based on Pb and Sr Isotopes*
- Lucy Miller, 2014-2015, Research Assistant
- Adam Marshall, 2013-2014, Undergraduate thesis/University Scholar: *Chemical Weathering of Different Watersheds in Western Greenland*
- Marko Steiger, 2013, Research Assistant
- Nikki Biller, 2012, Undergraduate thesis: *Evidence for Meltwater Pulse 1a in the Gulf of Mexico based on radiogenic isotopes of leachates*
- Chelsea Fenn, 2012, Undergraduate thesis/University Scholar: *Seawater and Detrital Marine Pb Isotopes as Monitors of Antarctic Weathering Following Ice Sheet Initiation*
- Allison Ned, 2011, Undergraduate thesis: *Miocene Seawater and Residue Nd and Pb isotopes from Ceara Rise*
- Elle Yudelman, 2010, Research Assistant, Sr isotopes in the Cretaceous.
- Bailey Trump, 2009, Research Assistant.
- Tracy King, 2006, Research Assistant.
- Jessica Lyons, 2004, University Scholar: *Nd isotopes in Ferromanganese Coatings*
- Wendell Philips, 2001, Research Assistant.
- Melina Faurve, 1998- McNair Fellow: *Fish teeth as Archives of Nd Isotopes*
- Ryan Bitely, 1997 University Scholar
- Nicole Anderson 1997, Research Assistant.
- Daniel Kuncicky, 1996, Research Assistant.
- Nicky Harvy, 1995, Research Assistant.

Funding History

National Science Foundation (Education) "Collaborative Research: GeoGaze: Gaze-driven adaptive multimedia to augment geoscience learning for neurodiverse

learners", Pasha Antonenko (PI), Ellen Martin- Senior Personnel ($1,039,920) (2021-2024).

National Science Foundation (ARCSS) "Significance of Ice-loss to Landscapes in the Arctic: SILA (Inuit concept of the physical world and weather)" $2,165,372, PI: J.B. Martin, Co-PIs: C.L. Barnett, B.C. Christner, E.E. Martin (all UF) (2020-2024).

National Science Foundation (MG&G) Subaward to UF from Rutgers for a six month extension of Postdoc salary, $42, 378 to UF August 2020 – February 2021.

International Network for Terrestrial Research and Monitoring in the Arctic (INTERACT-Transnational Access), Greenland Atmospheric, Isotopic and Nutrient Fluxes (GrAIN Fluxes). Funding through the European Union for travel and field logistics, $21,000, PIs Jon Martin, Ellen Martin, Andrea Pain (July-August, 2019).

UF Water Institute Graduate Fellowships (WIGF*, High Latitude Hydrology: Water in a Changing World,* 11 UF PI's, ~$1,082,916 to provide 5 UF Alumni Fellowships.

National Science Foundation (EAR-IF) "Early Career: Acquisition of a MC-ICP-MS for Research and Education in U-series Geochemistry and Applications in Geosciences," $773,000, PI- Dutton, Co-PIs: David Foster, Ellen Martin, Paul Mueller, Michael Perfit (all UF) (3/1/17-2/28/18)

National Science Foundation (MG&G), "Coring in the Southeast Indian and Southern Oceans to examine climate-driven changes in watermass paleoventilation, sources, and structure," $749,948, PIs- Elizabeth Sikes (Rutgers University). Ellen Martin ($321,012) (2016–2019)

National Science Foundation (ANS), "Neglected fluxes: Understanding the evolution of weathering as continental ice sheets retreat", $820,295 PI's Ellen Martin and Jon Martin (2016-2019)

US Science Support Program, "Gateways, circulation, and salinity in the Baltic Sea during the Holocene and Weichselian," $14,935 (2014-2015)

US Science Support Program, Participation in Expedition 347, Consortium for Ocean Leadership, $26,993 (2014)

National Science Foundation (MG&G), "Collaborative Research: Sources and circulation of intermediate and deep waters and their role in Campanian-Maastrichtian global cooling", $559,228, PIs- Ellen Martin ($198,659), Ken MacLeod (Univ. Missouri) and Chris Poulsen (Univ. Michigan) (3/13 – 3/17)

National Science Foundation (Arctic Research Projects), "Weathering of western Greenland: Influences on oceanic fluxes of radiogenic isotopes", $484,439, co-PI with Jon Martin (UF), (1/13-12/15)

Faculty Enhancement Opportunity, University of Florida, Research in Greenland and collaborations in Denmark, $40,734 (2012).

Gulf Coast Association of Geological Societies, "Source of Terrestrial Material Delivered to the Gulf of Mexico During Melt Water Pulse 1A" , $2000, (2011-2012) awarded to Nikki Biller, an undergraduate major working under my supervision.

Geological Society of America Student Research Grant, "Tracking the source of Δ14C depleted water observed off Baja California during the last deglaciation", $1640, awarded to Chandranath Basak, a Ph.D. student working under my supervision.

National Science Foundation (MG&G), "Pb isotopes in the Southern Ocean: A study of Pb systematic and weathering during the Eocene/Oligocene transition", $295,809, sole PI (8/09 – 8/12)

National Science Foundation (MG&G), "Collaborative Research: Tracking North Atlantic water column structure and circulation through the Late Cretaceous using oxygen and neodymium isotopes," $300,136, PIs - Ellen Martin ($153,119) and Ken MacLeod, University of Missouri ($147,017) (3/07-3/10).

American Chemical Society-Petroleum Research Fund, "Warm saline deep water production in the middle Eocene to early Oligocene," $79,400, sole PI (6/05-6/07).

National Science Foundation (MG&G), "Deep water circulation during the Miocene carbonate crash," $186,500, sole PI (3/05-3/07).

National Science Foundation SGER Award, "Evaluation of Fe-Mn oxide coatings as ideal archives of deep water Nd isotopes on Cenozoic timescales," $48,620, sole PI (3/04-3/05).

Integrated Ocean Drilling Program, "Late Neogene-Quaternary climate records in a paleointensity-assisted chronology (PAC) for the North Atlantic," Jim Channell (PI), J.S. Stoner, G.C. Bond, D.A. Hodell, E.E. Martin (co-PIs).

National Science Foundation, CAREER Award, "Nd isotope investigation of North Atlantic Deep Water production over the past 25,000 yrs and education in geology," $293,168, sole PI (9/96-9/01).

CLAS Research Award, "Sr and Nd systematics in Cenozoic fish teeth: Implications for the isotopic evolution of seawater," $13,854, sole PI (5/99-5/00).

American Chemical Society-Petroleum Research Fund, "Sr and Nd isotopes in the Miocene ocean: Implications for weathering rates and the Sr isotopic budget of the global ocean," $20,000, sole PI (6/96-6/98).

National Science Foundation, "An investigation of U-Pb systematics in conodonts," $17,967, sole PI (6/96-12/97).

University of Florida Graduate Research Assistantship Program, sole PI, $7,194, (5/96-12/96)

National Science Foundation, "Acquisition of a new TIMS for ocean and earth sciences at the University of Florida," $361,720, Paul Mueller (PI), E.E. Martin, D. A. Hodell, M.R. Perfit and J.B. Martin, (co-PI) (6/95).

University of Florida DSR Research Development Award, "An investigation of the uptake of Nd isotopes by fossil fish teeth," $18,000, sole PI (5/95-5/96).

Refereed Publications

Book Chapters

Hine, A.C., **Martin, E.E.,** Jaeger, J.M., and Brenner, M., 2017, Paleoclimate in Florida, *In* Chassignet, E.P., Jones, J.W., Misra, V., Obeysekera, J., *Florida's Climate: Changes, Variations, and Impact,* Florida Climate Institute, 457-484.

Journal Articles

Adebayo, S.B., Cui, M., Williams, T.J., **Martin, E.E.**, Johannesson, K.H. (submitted) Evolution of rare earth element and εNd compositions of Gulf of Mexico seawater during interaction with Mississippi sediment, *Geochim. Cosmochim. Acta.*

Beaudon, E., Sheets, J.M., **Martin, E.E.**, Sierra-Hernandez, E.R., Mosley-Thompson, E., Thompson, L.G. (submitted) Late Pleistocene aeolian dust preserved in the Guliya ice

cap (Northwestern Tibet): A promising paleo-environmental messenger, *Global and Planet. Change.*

Martin, J.B., Pain, A.J., **Martin, E.E.,** Deuerling, K.D., Black, M. (submitted) Lake effects on solute exports from a southwest Greenland watershed, *Limnology and Oceanography.*

Robinson, S., Ivanovic, R., van de Flierdt, T., Blanchet, C.L., Tachikawa, K., **Martin, E.E.**, Falco, C.P.[#], Williams, T., Gregoire, L., Plancherel, Y., Jeandel, C., Arsouze, T. (2021) Global continental and marine detrital ε_{Nd}: an updated compilation for use in understanding marine Nd cycling, *Chemical Geology, 567, 120119*. https://doi.org/10.1016/j.chemgeo.2021.120119

Williams, T.J.[#], **Martin, E.E.**, Sikes, E.L., Starr, A., Umling, N.E., and Glaubke, R. (2021) Neodymium isotope evidence for coupled Southern Ocean circulation and Antarctic climate throughout the last 118,000 years. *Quaternary Science Reviews*, *260, 106915.* https://doi.org/10.1016/j.quascirev.2021.106915

Portier, A.M.*, Thierens, M., **Martin, E.E.**, Hemming, S.R., Gombiner, J.H., and Raymo, M.E. (2021) Testing the Regolith Hypothesis: the long-terms evolution of the Laurentide Ice Sheet substrate as recorded in the Northern Gulf of Mexico. *Geology*, *36, e2020PA004082*. https://doi.org/10.1029/2020PA004082

Williams, T.J.[#], Wagner, A.J., Sikes, E.L., and **Martin, E.E.**, 2021, Evolution of the oceanic ^{13}C Suess effect in the Southeastern Indian Ocean between 1944 and 2018, *Geochem. Geophys. Geosystems, 22, e2020GC009402*. https://doi.org/10.1029/2020GC0090402

Pain, A.J.[#], Martin, J.B., **Martin, E.E.**, Rennelmalm, A., and Rahman, S. (2021) Heterogeneous CO_2 and CH_4 content of glacial meltwater of the Greenland Ice Sheet and implications for subglacial carbon processes, *Cryosphere, 15,* 1627-1644. https://doi.org/10.5194/tc-15-1627-2021

Martin, J.B., Pain, A.J.[#], **Martin, E.E.**, Rahman, S.[#], and Ackerman, P.[+] (2020) Comparisons of nutrients exported from Greenlandic glacial and deglaciated watersheds. *Global Biogeochemical Cycles*, 34, e2020GB006661. https://doi.org/10.1029/2020GB006661

Pain, A.J.[#], Martin, J.B., **Martin, E.E.**, Rahman, S.[#] (2020) Differences in the quantity and quality of dissolved organic carbon exported from Greenlandic glacial and deglaciated watersheds. *Global Biogeochemical Cycles*, 34, https://doi.org/10.1029/2020GB006614

Ladant, J.-B., Poulsen, C.J., Fluteau, F., Tabor, C.R., MacLead, K.G., **Martin, E.E.**, Haynes, S.J., Rostami, M.A.* (2020) Paleogeographic controls on the evolution of Late Cretaceous ocean circulation, *Climate of the Past, 16,* 973-1006. https://doi.org/10.5194/cp-16-973-2020

Haynes, S.J., MacLeod, K.G. Ladant, J-B., Vende Guchte, E., Rostami, M.A.*, Poulsen, C.J., **Martin, E.E.** (2020) Constraining sources and relative flow rates of bottom waters in the Late Cretaceous Pacific Ocean: *Geology*, v. 48, https://doi.org/10.1130/G47197.1

Kellerman, A.M., Arellano, A., Podgorski, D.C., **Martin, E.E.,** Martin, J.B., Deuerling, K.M.*, Bianchi, T.S., Spencer, R.G.M. (2019) Fundamental drivers of dissolved organic matter composition across an Arctic effective precipitation gradient, *Limnology and Oceanography*, 65, 1217-1234, doi:10.1002/lno.11385.

Da Prat, F.[+] and **Martin, E.E.** (2019) Weathering in the Glacial Foreland of Southern and Western Greenland, *Journal of Undergraduate Research UF*, v. 20, No. 2.

Deuerling, K.M.*, Martin, J.B., and **Martin, E.E.,** Abermann, J., Myreng, S.M., and Rennermalm, A.K. (2019) Chemical weathering across the western foreland of the Greenland Ice Sheet, *Geochim. Cosmochim. Acta*, 245, 426-440, doi.org/10.1016/j.gca.2018.11.025.

Adebayo, S.B., Cui, M., Hong, T., White, C.C., **Martin, E.E.,** Johannesson, K.H. (2018) Rare Earth Elements Geochemistry and Nd isotopes in the Mississippi River and Gulf of Mexico Mixing Zone, *Frontiers in Marine Science,* 5, Article 166, doi:10.3389/fmars.2018.00166

Deuerling, K.M.*, Martin, J.B., and **Martin, E.E. (**2018) Hydrologic exchange and chemical weathering in a proglacial watershed near Kangerlussuaq, west Greenland, *Jour. Hydrology,* 556, 220-232, doi.org/10.1016/j.jhydrol.2017.11.002.

Wright, Z.A., Hermann, A.D., **Martin, E.E**., Leslie, S.A., Quinton, P.C., and MacLeod, K.G., 2017, Neodymium isotopes ratios and a positive $\delta^{13}C$ excursion: Connecting oceanographic and climate changes during the Early Late Ordovician of Laurentia, *Stratigraphy,* 14, 443-456.

Hughes, K.P., MacLeod, K.G., Haynes, S.J., Quinton, P.C., **Martin, E.E.**, Ethington, R., 2016, A paired neodymium and oxygen isotopic perspective on paleoceanographic changes across the Dubuque/Marquoketa contact in the Late Ordovician Laurentian seaway, *Stratigraphy,* 12, 275-285.

Andrén, T., Barker Jørgensen, B., Cotterill, C., Green, S., the IODP expedition 347 scientific party (2015) IODP expedition 347: Baltic Sea basin paleoenvironment and biosphere, *Sci Dril.,* 20, 1-12, doi:10.5194/sd-20-1-2015.

Scribner, C.A.*, **Martin, E.E**., Martin J.B., Deuerling, K.M.*, Collazo, D.F.$^{+}$, Marshall, A.T. $^{+}$ (2015) Exposure age and climate controls on weathering in deglaciated watersheds of Western Greenland, *Geochim. Cosmochim. Acta,* 170, 157-172, doi:10.1016/j.gca.2015.08.008.

Horikawa, K.#, **Martin, E.E**., Basak, C.*, Onodera, J., Seki, O., Sakamoto, T., Ikehara, M., Sakai, S., and Kawamura, K. (2015) Pliocene cooling enhanced by flow of low salinity Bering Sea water to the Arctic ocean, *Nature Communications,* doi:10.1038/ncomms8587.

Osborne, A.H. *, Newkirk, D.R. *, Groeneveld, J., **Martin, E.E.,** Tiedemann, R., and Frank, M. (2014) The seawater neodymium and lead isotope record of the final stages of Central American Seaway closure, *Paleoceanography,* doi: 10.1002/2014PA002676.

Sepulchre, P., Arsouze, T., Donnadieu, Y., Dutay, J.-C., Jaramillo, C., Le Bras, J., **Martin, E**., Montes, C., Waite, A.J.# (2014) Consequences of shoaling of the Central American Seaway determined from modeling Nd isotopes, *Paleoceanography, doi:***10.1002/2013PA002501**

Basak, C.* and Martin, E.E. (2013) Antarctic weathering and carbonate compensation at the Eocene-Oligocene transition, *Nature Geoscience*, 6, 121-124, doi: 10.1038/NGEO1707.

Martin, E.E., MacLeod K.G., Jiménez Berrocoso, A., and Bourbon, E.* (2012) Water mass circulation on Demerara Rise during the Late Cretaceous based on Nd isotopes, *Earth and Planet. Sci. Letts.,* 327-328, 111-120, doi: 10.1016/j.epsl.2012.01.037.

van de Flierdt, T., Pahnke, K., et al. (2012) GEOTRACES intercalibration of neodymium isotopes and rare earth element concentrations in seawater and suspended particles. Part 1: reproducibility of results for the international intercomparison, *Limn. and Oceanography: Methods*, 10, 234-251, doi: 10.4319/lom.2012.10.234.

MacLeod K.G., **Martin, E.E**., Isaza-Londoño, C., Jiménez Berrocoso, A., and Basak, C.*, (2011) Changes in North Atlantic Circulation at the end of the Cretaceous greenhouse interval, *Nature Geoscience,* 4, 779-782, doi:10.1038/NGEO1284.

Horikawa, K.#, **Martin, E.E.,** Asahara, Y., and Sagawa, T. (2011) Limits on conservative behavior of Nd isotopes in seawater assessed from analysis of fish teeth from Pacific core tops, *Earth and Planet. Sci. Letts.,* 310, 119-130, doi:10.1016/j.epsl.2011.07.018.

Basak, C.*, **Martin, E.E.**, Kamenov, G.D. (2011) Seawater Pb isotopes extracted from Cenozoic marine sediments, *Chem. Geol.* 286, 94-108, doi:10.1016/j.chemgeo. 2011.04.007.

Basak, C.*, **Martin, E.E.**, Horikawa, K.#, and Marchitto, T.M. (2010) Southern Ocean source of 14C-depleted carbon in the North pacific Ocean during the last deglaciation, *Nature Geoscience*, 3, doi:10.1038/NGEO987.

Jiménez Berrocoso, A., MacLeod K.G., **Martin, E.E**. Bourbon, E.*, Basak, C.* and Isaza-Londoño, C. (2010) Nutrient trapping during Late Cretaceous organic-rich shale deposition in the tropical North Atlantic, *Geology,*38, 1111-1114, doi:10.1130/G31195.1.

Martin, E.E., Blair, S.W.*, Kamenov, G.D., Scher, H.D.*, Bourbon, E.*, Basak, C.*, and Newkirk, D.N.* (2010) Extraction of Nd isotopes from bulk deep sea sediments for paleoceanographic studies on Cenozoic time scales, *Chem. Geol.* 269, 414-431, doi: 10.1016/j.chemgeo.2009.10.016.

Newkirk, D.R.* and **Martin, E.E.** (2009) Circulation through the Central American Seaway during the Miocene Carbonate Crash, *Geology,* 37, 87-90, doi:10.1130/G25193A.

MacLeod, K.G., **Martin, E.E.,** and Blair, S.W.* (2008) Nd isotopic excursion across Cretaceous ocean anoxic event 2 (Cenomanian-Turonian) in the tropical North Atlantic, *Geology,* 36, 811-814, doi:10.1130/G24999A.

Scher, H. D.*, and **E. E. Martin** (2008), Oligocene deep water export from the North Atlantic and the development of the Antarctic Circumpolar Current examined with neodymium isotopes, *Paleoceanography*, 23, PA1205, doi:10.1029/2006PA001400.

Barker, P.F., Filippelli, G.M., Florindo, F. **Martin**, E.E., and Scher, H.D.* (2007) Onset and role of the Antarctic Circumpolar Current, *Deep-Sea Res.*, 54, 2388-2398.

Martin, E.E. and Scher, H.D.* (2006) A Nd isotopic study of southern sourced waters and Indonesian Throughflow at intermediate depths in the Cenozoic Indian Ocean, *Geochem., Geophys. Geosyst.* 7, Q09N02, doi:10.1029/2006GC001302.

Scher, H. D.*, and E. E. **Martin** (2006) Timing and consequences of the opening of Drake Passage, *Science, 312,* 428-430, doi:10.1126/science.1120044. (35)

Scher, H.D.* and E.E. **Martin** (2004) Circulation in the Southern Ocean during the Paleogene inferred from Nd isotopes, *Earth and Planet. Sci. Lett.*, 228, 391-405. (17)

Martin, E.E. and H.D. Scher* (2004) Preservation of seawater Sr and Nd isotopes in fossil fish teeth: bad news and good news, *Earth and Planet. Sci. Lett.,* 220, 25-39. (24)

Channell, J.E.T., E.E. **Martin** (2003) Comment on integrated chronoctratigraphic calibration of the Oligocene-Miocene boundary at 24 $\pm$ 0.1 Ma from the CRP-2A drill core, Ross Sea, Antarctica, *Geology*, 31, doi:10.1130/0091-7613.

Channell, J.E.T., S. Galeotti, E.E. **Martin**, K. Billups, H.D. Scher*, J. Stoner (2003) Eocene to Miocene magnetic, bio- and chemostratigraphy at ODP Site 1090 (sub-Antarctic South Atlantic), *Geol. Soc. of Am. Bull.*, v. 115, 607-623. (16)

Martin, E.E. and P.D. Howell (2001) Active inquiry, web-based oceanography exercises, Jour. *Geosci. Educ.*, 49, 158-165.

Martin, E.E. and B.A. Haley* (2000) Fossil fish teeth as proxies for seawater Sr and Nd isotopes, *Geochim. Cosmochim Acta,* v. 64, 835-847.

Martin, E.E., N.J. Shackleton, J.C. Zachos, and B.P. Flower (1999) Orbitally -Tuned Sr Isotope Chemostratigraphy for the late middle to late Miocene, *Paleoceanography*, 14, 74-83. (15)

Flower, B.P., J.C. Zachos, and E.E. **Martin** (1997) Latest Oligocene through Early Miocene isotopic stratigraphy and deepwater paleoceanography of the Western Equatorial

Atlantic: Sites 926 and 929, *Proceedings Ocean Drilling Project, Scientific Results,* v. 154, 451-462.

Martin, E.E. and J.D. Macdougall (1995) Sr and Nd isotopes at the Permian/Triassic boundary: A record of climate change, *Chem. Geol.*, 125, 73-99.

Martin, E.E., J.D. Macdougall, TD Herbert, A Paytan, and M Kastner (1995) Sr and Nd isotopic analyses of marine barite separates, *Geochim. Cosmochim. Acta,* 59, 1353-1361.

Paytan, A., M. Kastner, E.E. **Martin**, J.D. Macdougall and T.D. Herbert (1993) Marine barite as a monitor of seawater strontium isotope composition, *Nature*, v. 366, 445-449.

Thierstein, H.R., J.D. Macdougall, E.E. **Martin**, B. Larsen, and J. Baldauf (1991) Age determinations of Paleogene diamictites from Prydz Bay (Site 739), Antarctica, Using Sr isotopes of mollusks and biostratigraphy of microfossils, In J. Baron, B. Larsen, et al., *Proceedings Ocean Drilling Project, Scientific Results,* v. 119, 739-745.

Martin, E.E. and J.D. Macdougall (1991) Seawater Sr isotopes at the Cretaceous/Tertiary Boundary, *Earth and Planet. Sci. Lett.* v. 104, 166-180. (46)

*** Indicates graduate student author**
+ Indicates undergraduate student author
 # Indicates postdoctoral author

Non-refereed Publications

Jones, J.W. and **Martin, E.E.,** Reliance on Science *in* Climate Change Series of the University of Florida's *Explore Magazine,* Summer 2016.

Martin, E.E. (2015) Ocean circulation and rapid climate change, News and Views, *Nature*, 517, 30-31.

Andrén, T., Barker Jørgensen, B., Cotterill, C., Green, S., the Expedition 347 Scientists (2015) Site M0067. *In* Andrén, T., Barker Jørgensen, B., Cotterill, C., Green, S., and the Expedition 347 Scientists, Proc. IODP 347: College Station, TX (Integrated Ocean Drilling Program). doi:10.2204/iodp.proc.347.111.2015

Andrén, T., Barker Jørgensen, B., Cotterill, C., Green, S., the Expedition 347 Scientists (2015) Site M0066. *In* Andrén, T., Barker Jørgensen, B., Cotterill, C., Green, S., and the Expedition 347 Scientists, Proc. IODP 347: College Station, TX (Integrated Ocean Drilling Program). doi:10.2204/iodp.proc.347.110.2015

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Martin, E.E. and H.D. Scher* (2003) Preservation of seawater Sr and Nd in fossil fish teeth, EGS-AGU-EUG Joint Assembly, Nice, France, Abstr. # EAE03-A-06368.
Scher, H.D.*, and E.E. Martin (2003) Eocene to Miocene deep water circulation in the Southern Ocean: Nd records from fossil fish teeth, EGS-AGU-EUG Joint Assembly, Nice, France, Abstr. # EAE03-A-06643.
Scher, H.D.*, E.E. Martin, and A.A. Haase* (2002), Circulation of Eocene to Pliocene intermediate water masses in the Indian Ocean: Evidence from fossil fish teeth Nd isotopes: Abs. 12th Goldschmidt Conf., Davos, Switzerland, A677.
Scher, H.D.* and E.E. Martin (2001) Eocene to Miocene Southern Ocean deepwater circulation revealed from fossil fish teeth Nd isotopes, EOS Trans. AGU, 82, Fall Meet. Suppl., Abst. F639.
J.E.T. Channell, S. Galeotti, E.E. Martin, K. Billups, H.D. Scher*, J. Stoner (2001) Eocene to Miocene magnetic, bio- and chemostratigraphy at ODP Site 1090 (sub-Antarctic South Atlantic), EOS, Trans. AGU, 82, Fall Meet. Suppl., Abst. F318.
Martin, E.E. and H.D. Scher* (2000) Timing of the opening of the Drake Passage to Deep Water flow based on Nd isotopes, EOS, Trans. AGU, 81, Fall Meet. Suppl., Abst. F693.
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Martin, E.E. (1999) Paleocirculation studies based on Nd isotopes in fossil fish teeth from deep sea sediments, JOIDES International Conference, Vancouver, p. 38.
Martin, E.E. (1999) Learning to interpret oceanographic data: Web-based lab exercises, CAREER Program P.I. Mtg, Washington, D.C.

Martin, E.E. and Howell, P. (1999) Active inquiry, web-based oceanography exercises, Geol. Soc. Amer. Abstr. Prog., v. 31, A270.
Martin, E.E. and B.A. Haley (1998) Nd isotopes in fossil fish teeth: A potential tracer of paleocirculation, Abstr. International Congress on Paleoceanography, Lisbon, p. 158.
Martin, E.E. and B.A. Haley (1997) Nd Isotopes of Fossil Fish Teeth from the Western Pacific, EOS, Trans. AGU, 78, Fall Meet. Suppl., Abst. F378.
Martin, E.E., B.P. Flower, J.C. Zachos (1996) Sr Isotope Chronostratigraphy for the Early to Middle Miocene, Geol. Soc. Amer. Abstr. Prog., v. 24, A186.
Martin, E.E. and J.D. Macdougall (1995) Sr isotopes at the Permian/Triassic Boundary: A record of climate change, EOS, 76, S187.
Paytan, A., E.E. Martin, M. Kastner, J.D. Macdougall, and T.D. Herbert (1991) Barite: A monitor of oceanic Sr isotopic ratio, Geol. Soc. Amer. Abstr. Prog., v. 23, A341.
Martin, E.E., J.D. Macdougall, T.D. Herbert, A. Paytan and M. Kastner (1991) Comparison of the seawater Sr isotope record in three marine phases, Geol. Soc. Amer. Abstr. Prog., v. 23, A338.
Martin, E.E. and J.D. Macdougall (1990) Fine scale structure of the seawater strontium isotope curve at the Cretaceous/Tertiary Boundary, American Assoc. of Petrol. Geologists Abstr. Prog., 131.
Macdougall, J.D. and E.E. Martin (1988) Seawater strontium isotopes at the Cretaceous-Tertiary Boundary, Second Snowbird Conference on Global Catastrophes in Earth History, 111.

*** Indicates graduate student author**
+ Indicates undergraduate student author
 # Indicates postdoctoral author

Harrison Hove
Lecturer & Associate Chair, Department of Journalism
University of Florida
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Gainesville, FL 32611
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Professional Preparation

University of Florida	Political Science	BA	2005
University of Florida	Telecommunications	BS	2005
Florida State University	Meteorology	BS	2007
University of Missouri	Journalism	MA	2016
University of Florida	Higher Ed Administration	PhD	expected 2024

Academic Appointments

Associate Chair, Journalism	University of Florida	2021-present
Lecturer*	University of Florida	2019-present
INC News Manager	University of Florida	2017-2019
Adjunct Lecturer	Ohio State University	2016-2017

- Indicates graduate faculty appointment

Industry Experience

Freelance Meteorologist	WPTV/WFLX	West Palm Beach	2020-2021
Freelance Meteorologist	Spectrum News One	Ohio (Statewide)	2020
Freelance Meteorologist	FPREN (Hurricane Irma)	Florida (Statewide)	2017
Meteorologist, Anchor	WCMH	Columbus, OH	2013-2017
Meteorologist, Reporter	Ohio News Network	Ohio (Statewide)	2008-2012
Meteorologist, Reporter	KLFY	Lafayette, LA	2007-2008
Digital Producer	WCTV	Tallahassee, FL	2006-2007

Closely-Related Projects

Rising from the Rubble (2021)*:* Supervised a team of student journalists covering the aftermath of Hurricane Ida. Based in Houma, LA, the team gathered stories about the storm's impacts and compiled it into a nationally award-winning 30-minute news magazine.
Watch here: https://www.youtube.com/watch?v=cc5VPxSMOAc

The Forgotten City (2020): Supervised a team of student journalists covering the aftermath of Hurricanes Laura and Delta. Based in Lake Charles, LA, the team gathered stories about the storms' impacts and built a nationally award-winning news magazine and digital experience.
Watch news magazine here: https://vimeo.com/480463684
Browse digital experience here: https://www.wuft.org/news/the-forgotten-city/

After the Eye (2019): Supervised a team of student journalists covering the one-year anniversary of Hurricane Michael. Based in the Florida Panhandle, the team gathered stories about the recovery process and compiled it into a national award-winning news magazine. Watch news magazine here: https://www.wuft.org/news/2019/10/10/after-the-eye-a-story-of-recovery-along-floridas-forgotten-coast/

Life After Maria (2018): Supervised a team of student journalists covering the one-year anniversary of Hurricane Maria. Based in San Juan, Puerto Rico, the team gathered stories about recovery and interviewed Governor Ricardo Rosselló. The stories were compiled into English and Spanish language news specials and digital experiences that won national awards.

Synergistic Activities:

- UF Summer Media Institute Director: Coordinate and program a summer camp for high school students about journalism and communication. Budget: $150,000
- Faculty Professional Summer Grant Awardee: Allow for faculty member to immerse himself in broadcast news industry as a meteorologist for several weeks ($7,000)
- Florida Association of Broadcast Journalists Board of Directors
- Young Journalists' Network Lead Facilitator: U.S. Embassy funded program to train early-career journalists in across North Macedonia
- AEJMC Broadcast and Mobile Journalism Division Head (2022), Vice Head (2021), Vice Head Elect (2020), Research Chair (2019)
- AEJMC LGBTQ Interest Group Vice Head (2022), Teaching Chair (2021)
- UF Center for Teaching Excellence Workshop Presenter. Topics: Optimizing Team-Based Learning, Building Classroom Community, Developing Soft Skills, Active Learning
- UF Center for Teaching Excellence Certificates: Global Teaching and Learning (2021), Great Online Teaching Certificate (2020), Great Teaching Certificate (2020), Great Teaching for New Faculty Certificate (2020)

Awards, Honors, Designations

- American Meteorological Society CBM seal (2008, currently inactive)
- University of Florida Undergraduate Teacher of the Year (2021)
- UF College of Journalism and Communications Teacher of the Year (2021)
- Society of Professional Journalists (FL Chapter) Adviser of the Year (2021)
- UF Center for Teaching Excellence Rising Star Award (2021, 2022)
- UF Center for Teaching Excellence Exemplary Online Award: instructional strategy ('22)
- Regional Emmy Award (Ohio Valley Chapter): Weather Anchor (2011, 2012, 2013)
- Regional Emmy Award (Ohio Valley Chapter): Weather Story (2011, 2013)
- Regional Emmy Award (Ohio Valley Chapter): Interactivity (2013)
- Regional Emmy Award (Ohio Valley Chapter): Performer (live shots) (2015)
- National Award for Excellence in Science Reporting (American Met. Society) (2013)

Kwansun Cho

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Curriculum Vitae

Education

08/10/2003 – present (Expected 8/5/2022)
Ph.D. in Electrical and Computer Engineering
University of Florida, Gainesville, FL
Dissertation: Foreign Accent Assessment in Second-Language Vowels
Minor: Communication Sciences and Disorder

08/14/2001 – 08/09/2003
M.S. in Electrical and Computer Engineering
University of Florida, Gainesville, FL

09/01/1997 – 08/27/1999
M.E. in Electrical and Computer Engineering
Yonsei University, Seoul, Republic of Korea

03/02/1992 – 02/23/1996
B.E. in Electronic Communication Engineering
Kwandong University, Gangneung-Si, Republic of Korea

Teaching and Research Interests

Computer programming languages; Database Management; Improved flipped classroom teaching/learning; Computer- or web-assisted personalized learning; Digital signal processing; Speech recognition; Pattern recognition; Speech synthesis; Human Computer Interaction; Second language acquisition; Foreign accent reduction; Computer assisted language learning; Computer assisted pronunciation training; Foreign accent assessment; Acoustic phonetics

Teaching Experience

08/16/2019 – present
Instructional Assistant Professor, *Department of Engineering Education*
1929 Stadium Road. Gainesville, FL 32611
- Teaching introductory computer programming courses for engineers (COP2271/COP2271L: MATLAB and COP2274: C++)
- Developing a curriculum encouraging hands-on learning experience with problem solving and computational thinking skills
- Responsible for 3/4 section of about 50 students
- Delivering 3/4 lectures per week

08/16/2018 – 05/15/2019; 08/16/2017 – 05/15/2018
Adjunct Instructor, *Department of Electrical and Computer Engineering*
University of Florida
903 W University Ave. Gainesville, FL 32611
- Taught a course (EEL3834) on computer skills and the art of writing good computer programs for Electrical and Computer Engineers
- Developed a curriculum encouraging hands-on learning experience and

preparing weekly lessons to facilitate the curriculum
- Responsible for 1 section of about 40-60 students
- Delivered 3 lectures per week

05/16/2018 – 08/14/2018 **Adjunct Assistant Professor**, *Program of Information Technology Education*
Santa Fe College
3000 NW 83rd Street Gainesville, FL 32606
- Taught a course (COP2002) on the concepts of computer logic and programming using the Python programming language
- Responsible for 1 section of 16 students
- Delivered 3 lectures per week

01/1/2013 – 05/15/2013 **Teaching Assistant**, *Department of Electrical and Computer Engineering*
University of Florida
903 W University Ave. Gainesville, FL 32611
- Assisted undergraduate students with assignments and concepts taught in a circuits course weekly
- Assisted grading exams and homework assignments
- Responsible for three recitation hours

Research Experience

09/15/2011 – 08/15/2019; 01/01/2003 – 08/15/2007 **Research Assistant**, *Computational NeuroEngineering Laboratory (CNEL)*
University of Florida
903 W University Ave. Gainesville, FL 32611
- Worked with Dr. John G. Harris

- Developed an automatic assessment system of the degree of foreign accent in American English
- Collected foreign-accented speech DB in American English

09/01/1997 – 08/27/1999 **Research Assistant**, *High Dimensional Signal Processing Laboratory*
Yonsei University
50 Yonsei-ro, Seodaemun-gu, Seoul, 03722, Republic of Korea
- Worked with Dr. Chulhee Lee
- Designed Logatom based on consonant-vowel-consonant (CVC) for Korean concatenative Text-To-Speech (TTS) system
- Researched on a speech synthesis system using variable synthesis units

Skills

Computer: C/C++, MATLAB, Python, JavaScript, HTML, CSS, Linux
Language: Korean (native), English (fluent)

BIOSKETCH: Mark Leeps

Assistant in Journalism (formerly in Tel.), UF College of Journalism & Communications
INC News Manager (formerly TV News Director), WUFT-TV
1885 Stadium Road (Weimer Hall) Room 2324, Gainesville, FL 32611
(352) 294-1504; mleeps@wuft.org

Professional Preparation

Boston University	Liberal Arts	BA 1985
University of Florida	Broadcast News	MAMC 1988

Teaching Experience

Assistant in Journalism	UF	2019 - present
Assistant in Telecommunication	UF	2003 - 2019

Television News Experience

News Manager (TV Specialist)	WUFT NEWS	2012 - present
News Director	WUFT-TV	2003 - 2012
Executive Producer	WBNS-TV	2002 - 2002
Executive Producer	WTVQ-TV	1998 - 2002
Producer, Assistant News Director, News Director	WLTX-TV	1994 - 1998
Producer	WIS-TV	1993 - 1994
Assignment Editor, Assistant News Director	WCJB-TV	1992 - 1993
Assignment Editor, Assistant News Director	WUFT-TV	1988 - 1992

UF Student Team Accomplishments

UF Top10 Broadcast News Hearst Intercollegiate 1988 – 1992
UF finished #1 in 1990
UF Top10 Broadcast News Hearst Intercollegiate 2003 – present
all years except 2006, UF finished #1 in 2019, 2021
UF Top3 Hearst TV News Student Championship Individual
1992, 2004, 2009, 2010, 2017, 2018, 2019
UF TV Newscast/Special National #1's
NBS: 2006, 2007, 2010 (2), 2012, 2013, 2014, 2016, 2017, 2019, 2020 (2), 2021 (2)
SPJ: 2009, 2018 (2), 2020
BEA: 2015, 2019, 2020
College Emmy: 2007, 2017

MEGAN BOROWSKI

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Education:

The University of Florida- M.S. Geography- Earth System Science with a certificate in Applied Atmospheric Science (in progress)

Rutgers, The State University of New Jersey- B.S. Meteorology (Jan. 2018)

- Matthew Leydt Honor Society- top 1% of Rutgers University Class of 2018
- Summa Cum Laude
- 3.98 GPA

Relevant Coursework:

- Atmospheric Analysis Using GIS
- Atmospheric Teleconnections
- Communicating Science
- Calculus I, Calculus II, Multivariable Calculus, Differential Equations
- General Physics I and II for Engineers
- Atmospheric Dynamics, Thermodynamics
- Computational Methods for Meteorology
- Statistics for Research Professions
- Meteorology: Synoptic, Mesoscale, Physical
- Remote Sensing of the Oceans and Atmosphere
- Climate Dynamics
- Meteorological Analysis
- Elements of Meteorology and Elements of Climatology
- Sustainable Environmental Management
- Media Writing

Professional Experience:

Meteorologist: University of Florida Division of Media Properties, The Florida Public Radio Emergency Network, The South Carolina Emergency Information Network- May 2019 - present

In this role, I analyze meteorological data and provide daily forecasts for the North Florida, Florida, and South Carolina Markets. In addition, I deliver these forecasts to NPR news stations via written web articles, social media posts, radio newscast spots, and television spots. I also serve as a mentor to undergraduate students in the College of Journalism and communication: I teach them the basics of meteorology and guide them as to the best practices for communicating weather to the audience.

ABC News Freelance Meteorologist- June 2018 – May 2019

Analyzed weather observations and model data to produce forecasts; authored national weather forecasts published on the web; created graphics for on-air broadcast; produced on-air weather segments for World News Tonight and Good Morning America; assisted and advised on-air talent

Meteorology Intern WNBC New York City – Fall 2017

Created broadcast and social media weather graphics, participated in forecast development, wrote forecast discussions, practiced on-camera presenting using the green screen, shadowed nationally recognized meteorologists

Teaching Experience:

RTV3945- Student Immersion Experience- Broadcast Meteorology
May 2019- present:

Serve as the instructor for the RTV3945 offered by the University of Florida College of Journalism and Communications. In this role, I develop curricula and teach students about basic meteorological concepts and best methods to communicate the forecast to the audience through various forms of media.

Mathematics Tutoring- Mathnasium Learning Centers- Toms River, NJ & Brielle, NJ
July 2018 – April 2019

Taught students in individual and group settings mathematical concepts. Topics ranged from grade 2 arithmetic to pre-calculus and basic calculus.

Honors:

- Matthew Leydt Honor Society- top 1% of Rutgers University Class of 2018
- Selected Presenter- Rutgers Undergraduate Research Writing Conference ○ Presented research project: ***Runoff Remedy: Storm Drain Inlet Filters to Control Eutrophication of the Barnegat Bay***
- Merit Scholarships: Rutgers University Class of 1925 Scholarship, Hilda Foster Scholarship
- Rutgers Dean's List

Michelle A. Phillips

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Education

- 2012 Ph.D., Economics, University of Florida
- 2007 B.S., Economics, University of Central Florida (minor in Health Service Administration)

Employment

- University of Florida, Lecturer, August 2016- Current.
- Public Utility Research Center, Junior Economist, July 2014-August 2016.
- Missouri University of Science and Technology, Assistant Teaching Professor of Economics, August 2012-May 2014.
- World Bank, PPIAF, short term consultant, May 2008-August 2008.

Courses taught

Environmental Economics, Public Choice, Intermediate Microeconomics, Economics of Sustainability, Economics of Energy Sustainability, Empirical Research, Principles of Macroeconomics, Principles of Microeconomics, Climate Change Economics.

Publications

Inefficiency in Japanese water utility firms: A stochastic frontier approach. 2013. *Journal of Regulatory Economics*, 44(2); 197-214

State involvement in limiting textbook choice by school districts. 2014. *Public Choice*, 160: 181-203

Consolidation of municipality-owned water suppliers in Japan (with Mahelet Fikru). 2016. *Water Science and Technology: Water Supply*, 16 (3) 695-702.

The low cost of quality improvements in the electricity distribution sector of Brazil (María Luisa Cortón, Aneliese Zimmermann, and Michelle Phillips). 2016. *Energy Policy*, 97: 485-493.

The Influence of the Regulatory Environment on Chinese Urban Water Utilities (with Fan Li). 2017. *Water Resources Management*, 31(1): 205– 218.

Data Availability as a Key Tool for Regulating Government-Owned Water Utilities (with Sanford V. Berg). 2017. *Utilities Policy*, 49: 30-37.

New Soil Index Development and Integration with Economics (Katsutoshi Mizuta, Sabine Grunwald, Michelle Phillips). 2018. *Soil Science Society of America Journal*, 82(5): 1017-1032.

The Wage Impacts of Teachers Unions: A Meta-Analysis (with Jessica Merkle). 2018. *Contemporary Economic Policy*, 36(1): 93-115.

Networks in Infrastructure with Applications to Latin America and the Caribbean (with Sanford V. Berg). 2018. *Competition and Regulation in Network Industries*, 19(3-4): 113-136.

New Indication Method Using Pedo-Economic Approach (Katsutoshi Mizuta, Sabine Grunwald, Michelle A Phillips, Wendell P Cropper Jr., Won S Lee, Gustavo M Vasques). 2019. *DEA Journal,* 4 (2), 207-241.

Integrating quality and cost efficiency in the electricity X-factor: the case of Brazil (with María Luisa Cortón and Aneliese Zimmermann). 2019. *Review of Network Economics*. 18 (1): 35-62

A Tale of Two Unions: Divergent Platforms and their Constituencies (with Jessica Merkle). 2020. *Applied Economics*. 52(15): 1687-1703. DOI: https://doi.org/10.1080/00036846.2019.1677851

Emergence of the Pedo-Econometric Approach. Katsutoshi Mizuta, Sabine Grunwald, Michelle A Phillips, Allan R Bacon, Wendell P Cropper, Charles B Moss. 9 April 2021. *Frontiers in Soil Science.*

Sensitivity Assessment of Metafrontier Data Envelopment Analysis for Soil Carbon Sequestration Efficiency. Katsutoshi Mizuta, Sabine Grunwald, Michelle Phillips, Charles Moss, Allan Bacon, and Wendell Cropper Jr. 2021. *Ecological Indicators,* 125.

Holistic Aboveground Ecological Productivity Efficiency Modeling Using Data Envelopment Analysis in the Southeastern U.S. . Forthcoming in *Science of the Total Environment.* Katsutoshi Mizuta, Sabine Grunwald Allan R. Bacon, Wendell P. Cropper Jr., Michelle A. Phillips, Charles B. Moss, Carlos A. Gonzalez-Benecke, Daniel Markewitz, Christopher M. Clingensmith, and Xiong Xiong.

Working Papers

The Effect of Renewable Portfolio Standards Regulation on State-Level Employment: An Ex Post Analysis (with Richard Boampong and Colin Knapp), Revise and Resubmit.

Technical Efficiency of the Oil and Natural Gas Industry in China (Fan Li, Xiaokun Wu, Michelle Phillips).

Solar Impacts: Does Distributed Production Affect Consumption Choices? (with Mark Jamison and Theodore J. Kury). Submitted.

Reports

Florida Multifamily Efficiency Opportunities Study. Prepared for Florida Department of Agriculture and Consumer Services Office of Energy (Lynne Holt, Mark Jamison, Theodore Kury, Michelle Phillips, Lynn Jarrett, Pierce Jones, Craig Miller, Jennison Kipp Searcy, Nicholas Taylor, David Chasar, Jeremy Nelson, Jeffrey Sonne, and Robin Vieira).

Awards

- Economics Faculty of the Year, University of Florida, College of Business Administration, 2010-2011.
- Robert F. Lanzillotti Prize for best second-year paper, University of Florida, 2010
- Edward Zabel Award for outstanding dissertation research, University of Florida, 2011
- Selected as one of the top campus winners of the 7th annual Freshman Engineering Program "We love your class" vote (freshmen engineering students vote for their favorite professors), Missouri University of Science and Technology, 2013.
- Nominated (by students) for Freshman Engineering Program "We love your class" award, Missouri University of Science and Technology, 2014.
- Nominated as a University of Florida Anderson Scholar faculty honoree, 2019.
- 2020-2021 Teacher of the Year Award for University of Florida College of Liberal Arts and Sciences.
- 2021 American Economic Association Professional Development Grant Award for URM

Presentations

- First-Generation Leadership Program presentation on Careers related to Climate Change and the Environment (virtual). April 2022.
- WEA meetings (Presidential Session), June 2017.
- World Bank Energy Group, February 2015.
- Bob Graham Center "Economics of Sustainability Forum", January 2015.
- Public Choice Annual Meetings, 2011, 2012, 2013, 2017.
- IRES Chapman University, 2012.

Service

- Cutler Awards Committee, Economics Department, University of Florida, 2022-.
- Assistant Editor, Journal of Competition and Regulation in Network Industries, 2018-.
- UF Teacher of the Year selection committee, Spring 2022.
- Economics Department Undergraduate Honors Thesis Coordinator, 2016-.
- Undergraduate Thesis Advisor 2016-. (approximately 22 students per year)
- UF Sustainability Studies Oversight Board, 2016-current
- Mentor, UF University Minority Mentoring Program 2016
- Mentor, Askew Scholar, 2018-2019.
- Mentor, CLAS Scholars 2018-2019 (2 students), 2021-2022 (1 student), 2022-2023 (1 student)
- Mentor, USP Scholars 2022-2023 (1 student)
- Mentor, Cutler Scholars 2022-2023 (4 students)
- MS&T Library Committee 2012-2014.

Referee

Energy Journal, Utilities Policy, AWWA Water Science.

Citizenship

USA and Chile

Misti Sharp, PhD

January 2022

Current Appointment: Undergraduate Coordinator and Lecturer, Food and Resource Economics Department | CALS | IFAS | University of Florida

Contact Information: mistisharp@ufl.edu | 352-294-7632
1189 McCarty Hall A | P.O. Box 110240, Gainesville, FL 32611

Fields of Expertise: Economist, teacher, and advisor with recent research focused on teaching and learning. Special teaching interests include increasing diversity, equity, and inclusion in Agricultural Economics and assessing active pedagogical approaches on learning experiences. Other research interests include water and natural resource economics and policy.

Education and Training:

Ph.D. in Agricultural and Natural Resource Economics — December 2017
Colorado State University (CSU)

Master of Science in Agricultural Economics — May 2012
University of Arkansas (UA)

International Master of Science in Rural Development — September 2012
Consortium of Universities in the European Union including study at:
- The Slovak University of Agriculture in Nitra, Slovakia
- Humboldt University in Berlin, Germany

Bachelor of Science in Agriculture, Food and Life Sciences — May 2008
University of Arkansas
- Major: Agricultural Business Management and Marketing
- Minors: Spanish and Global Agriculture, Food and Life Sciences
- Magna Cum Laude designation, Bumper's College Distinguished Honor's Scholar, Chancellor's List 2007-2008, Dean's List 2004-2008

Teaching and Advising Experience:

Undergraduate Coordinator — Spring 2021 – Present
Sigma Alpha Faculty Advisor — Spring 2018 – Present
SAEA/AAEA Academic Quiz Bowl Advisor — Fall 2020 – Present
Classes taught at the University of Florida: — Fall 2016 – Present
- AEB 4325: Contemporary Issues in Agribusiness
- AEB 2451: Economics of Natural Resource Use
- AEB 3510: Quantitative Methods in FRE
- AEB 3550: Agricultural Data Analysis
- AEB 3103: Principles of Food and Resource Economics
- AEB 5516: Quantitative Methods in Agribusiness Decisions

Instructor: AREC/ECON 240: Issues in Environmental Economics, CSU — Spring 2014

Assistant Online Instructor: AREC 637: Understanding Policy and Emerging Issues, CSU with Dr. D. Hoag	Spring 2014
Assistant Online Instructor: AREC 478: Agricultural Policy with Dr. Hoag	Spring 2014
Departmental Teaching Assistant, Dept. of Ag and Resource Econ, Colorado State University	August 2012 - May 2013
Departmental Teaching Assistant, Dept. of Ag Econ and Agribusiness, University of Arkansas	August 2009 - December 2011
Instructor for the Upward Bound Program	Summer 2012
Mentor for Upward Bound UA Residential Summer Program	2006, 2009, 2010

Awards and Certifications:

UF CALS 2020 Undergraduate Teacher of the Year	2020/2021
NACTA Educator Award	Summer 2021
UF Center for Teaching Excellence Rising Star Award	Spring 2021
SAEA Outstanding Teaching of a Course Award	Spring 2021
Team-based Learning Collaborative (TBLC) Practitioner Certification	Spring 2021
Multicultural Mentoring Certificate	Fall 2020
Center for Teaching Excellence Certificate of Great Teaching	Fall 2020
CALS 2019 Innovation in Teaching Award	Fall 2019
Team-based Learning Collaborative (TBLC) Fundamentals Certification	Summer 2018
CSU Graduate Teaching Certificate Program	Fall 2016
AAEA Graduate Section Case Study Competition Team: 3rd Place	July 2014
DARE Graduate Student Research Symposium: 1st Place	February 2014
Team-based Learning Collaborative (TBLC) Trainer-Consultant Certification	In progress
Inclusion, Diversity, Equity, and Access (IDEA) Passport to Great Teaching Certificate through the UF Center for Teaching Excellence	In progress

Professional Development:

Team Based Learning Collaborative Member	May 2020 – Present
North American College Teachers in Agriculture (NACTA)	2018 – Present
• NACTA Journal and Abstract Reviewer	2020 – Present
• Educational Issues and Teaching Improvement Committee	
American Agricultural Economics Association (AAEA) Member	2007 – Present
• Reviewer for AAEA Annual Conference	
• Committee on Women in Agriculture Member	
• Teaching and Learning Committee Member	
• Student Section Quiz Bowl Participant and Volunteer	
Southern Agricultural Economics Association (SAEA) Member	Jan 2007 – Present
• Student Section Quiz Bowl Volunteer	2020 – Present
University of Florida CALS Curriculum Committee Member	Jan 2018 – Present
Affiliate of the UF Water Institute	August 2016 – Present
Team Based Learning UF Faculty Learning Community	Fall 2019 – Spring 2020
Preparing Organizational Leaders in Agriculture (POLA)	Fall 2019 – Spring 2020

Adaptive Learning Community in Economics (ALE)	August 2017 – 2018
American Water Resources Association Member	August 2014 – 2016
DARE Graduate Student Organization (CSU); treasurer, president	May 2013 – July 2015
Graduate Organization for Agricultural Economics (UA)	Aug 2009 – Dec 2011
Agricultural Economics Quizbowl Team, SAEA and AAEA	Jan 2007 – Aug 2008
Belize International Service-Learning Project, Farm group leader	Jan 2007 – July 2007
Sigma Alpha Professional Sorority, Secretary, President	Sept 2004 – May 2008

International Experience:

Visiting Professor for University Study Abroad Consortium (USAC) at Leuphana Universität in Luneburg, Germany. Course: "Economics of Natural Resource Use"	Summer 2019
International Rural Development at Humboldt Universität zu Berlin	2010 - 2011
Rural Development Case Study in Nitra, Slovakia (Slovak Agricultural University)	Summer 2010
Primary data collection in Santiago, Chile and Lima, Peru	Summer 2010
Belize Service-Learning Project in the Stann Creek District of Belize	Summer 2007

Peer Reviewed Publications:

Hilsenroth, Jana, Grogan, Kelly A., Crandall, Raelene M., Bond, Ludie, and Misti D. Sharp (2021) "The Impact of COVID-19 on Management of Non-Industrial Private Forests in the Southeastern United States." Trees, Forests, and People. Vol. 6, December 2021 https://doi.org/10.1016/j.tfp.2021.100159

Sharp, Misti D. and Jada M. Thompson (2021) "Making Learning about Climate Change Fun and Interactive." Applied Economics Teaching Resources (AETR). Vol. 3, Special issue, March 2021. doi: 10.22004/ag.econ.313689

Morgan, Stephen N., Sharp, Misti D., and Kelly A. Grogan (2020) "So you want to run an online experiment? The good, the bad, and the different." Applied Economics Teaching Resources (AETR). Vol. 2, Issue 5, December 2020. DOI: 10.22004/ag.econ.308055

Sharp, Misti D., Hoag, Dana L.K., Bailey, Ryan T., Romero, Erica C., and Timothy K. Gates (2016) "Institutional Constraints on Cost-Effective Water Management: Selenium Contamination in Colorado's Lower Arkansas River Valley." Journal of the American Water Resources Association (JAWRA) 52(6): DOI: 10.111/1752-1688.12463

Non-referred Publications:

Emrick, Bailey, Misti Sharp, and Xiang Bi (2020) "Attitudes about Sea-Level Rise Adaptation: Comparison Between Miami-Date County and the Rest of Florida." EDIS Publication #FE1084. October 14, 2020. https://edis.ifas.ufl.edu/publication/fe1084

Sharp, Misti D., Manning, Dale T., and Dana L.K. Hoag (2016) "Uncertainty and Technology Adoption with Imperfect Property Rights: Lessons from the Arkansas River Valley."

2016 Annual Meeting, July 31 - August 2, Boston, Massachusetts 235963, Agricultural and Applied Economics Association. DOI: 10.22004/ag.econ.235963

Clark [Sharp], Misti and Eric Wailes. (2007) "Arkansas Producers' Attitudes toward the 2002 Farm Bill and Preferences for the 2007 Farm Bill." Discovery, the Student Journal of the Dale Bumpers College of Agricultural, Food and Life Sciences. University of Arkansas System Division of Agriculture. Volume 8, Article 8, pp 41 – 49, Fall 2007.

Current Funded Research Projects:

Enhancing Diversity in Food and Resource Economics - Creating a World of Opportunity for Tomorrow's Leaders (AWD09531) – USDA NIFA Grant (2021-38413-34015) (January 2021 – 2024)

- Currently mentoring scholars in their first semester at UF
- Working on a manuscript to submit to AETR for their "Fostering Diversity and Inclusion in Agribusiness and Agricultural Economics Classrooms and Departments" to submit by December 31st

Wildfire Management in the Southeastern United States: Optimal Fire Prevention Effort and the Effectiveness of Incentives to Achieve Increased Prevention (AWD06109) – USDA NIFA Grant (2019-68006-29328) (May 2019 – May 2022)

- In Review: Hilsenroth, Jana, Grogan, Kelly A., Crandall, Raelene, Bond, Ludie, and Misti Sharp (2021) "Toilet Paper and Wildfires and Pandemics, Oh My! The Impacts of COVID-19 on Management of Non-Industrial Private Forests in the Southeastern United States." Submitted to Trees, Forests, and People on September 10, 2021. Manuscript Number: TFP-D-21-00238
- Developing economic experiments looking at incentive structures for promoting socially optimal private forest management with graduate student.

Other Ongoing Research:

Do Intentional Team Formation and Teaching Delivery Method Matter in Team-based Learning Outcomes?

- Abstract Submitted to SAEA 2021 and under review
- This study, originally designed to measure the impacts of intentional team formation on learning and team satisfaction, investigates how diverse teams perform in a data analysis class taught under various teaching paradigms. IRB202001389

To Rebuild or not to Rebuild When Disaster Hits

- Case Study co-written with Dr. Jada Thompson in fulfillment of Preparing Organizational Leaders in Agriculture (POLA) through Innovative Leadership Case Studies Contextualized in Agricultural Disasters NIFA Higher Education Grant Program (USDA/NIFA Grant Project # 2019-70003-29092)
- Implementing in classroom this semester and will submit to AETR for publication in the Spring. IRB202101971

Selected Presentations:

Sharp, Misti D. (2021) "Making Online Learning Active with Team-Based Learning." Selected Presentation given at the Agricultural and Applied Economics Association (AAEA) meeting in Austin, Texas in August 2021. Invited.

Sharp, Misti D. (2020) "Making Learning about Climate Change Fun and Interactive." Selected Presentation given at the Agricultural and Applied Economics Association (AAEA) virtual meeting, August 2020. Invited.

Sharp, Misti D. (2020) "Peer Formation and Evaluation: Does Intentional Team Formation Matter?" Selected Presentation given at the North American Colleges and Teachers of Agriculture (NACTA) virtual conference, August 2020. Refereed.

Sharp, Misti D. (2019) "Facilitating Student Learning Through a Guided Internship." Poster Presentation at the North American Colleges and Teachers of Agriculture (NACTA) conference in Twin Falls, Idaho at the College of Southern Idaho, June 18 – 21, 2019. Refereed.

Sharp, Misti D. (2018) "Economic Damages Associated with Water Related Natural Disasters." Selected Poster Presentation at the 6th Annual University of Florida Water Institute Symposium in Gainesville, Florida on February 6 – 7, 2018. Refereed.

Sharp, Misti D. (2018) "Nudging students to better learning outcomes." Selected Presentation at the Southern Agricultural Economics Association (SAEA) Annual Meeting in Jacksonville, Florida, February 3 – 6, 2018. Refereed.

Sharp, Misti D. (2017) "An Experimental Approach to Resolving Uncertainty in Water Quality Trading markets." Selected Presentation at the Southern Agricultural Economics Association (SAEA) Annual Meeting in Mobile, Alabama, February 4 – 6, 2017. Refereed.

Sharp, Misti D. (2015) "Impacts of Western Water Institutions on Water Conservation Investment Decisions." Selected Presentation given at the Agricultural and Applied Economics Association (AAEA) meeting in San Francisco, California, in 2015. Refereed.

Workshops Delivered:

Hamilton, Philip, Jennifer Clark, Misti Sharp, and Alimamy Fornah. "Data Mining and Mapping Using Excel 2013 and Later" workshop for the NACTA 2021 Annual Meeting (virtual) on Tuesday, June 22, 2021

Farland, Michelle and Misti Sharp. "Making Online Learning Active with Team-Based Learning" workshop for the UF Center for Teaching Excellence (CTE) on 10/16/2020, 7/10/2020, and 2/4/2021.

Sharp, Misti D., Grogan, Kelly A., and Christopher L. Sharp. "HyFlex Teaching in Food and Resource Economics" workshop for Food and Resource Economics on 12/17/2020.

Paul A. Torrey
Curriculum Vitae

Massachusetts Institute of Technology
77 Massachusetts Ave., Bldg 37-547
Cambridge, MA 02139
Phone: 703 967 7560
email: ptorrey@mit.edu
http://www.mit.edu/~ptorrey

Education

Harvard University Center for Astrophysics — Cambridge, MA
MA in Astronomy & Astrophysics — 2010
Ph.D. in Astronomy & Astrophysics — 2014
Advisor: Lars Hernquist
Thesis: *Probing Galaxy Formation and Evolution through Numerical Simulations and the Distribution of Heavy Elements*

Cornell University College of Engineering — Ithaca, NY
Bachelor of Science in Applied Physics – Cum Laude — 2008

Professional Experience

Hubble Fellow	MIT	2016 –
Postdoctoral Fellow	MIT (joint w/ Caltech) with Mark Vogelsberger	2014 –
Postdoctoral Fellow	Caltech (joint w/ MIT) with Phil Hopkins	2014 –
Graduate Student	Harvard University with Lars Hernquist	2008 – 2014
Undergrad Researcher	Cornell University with Joe Burns	2007 – 2008
Space Grant Intern	JPL with Lee Johnson	2007
Mechanical Engineer	CUSat Air Force Research Lab Competition	2006 – 2007

Honors and Awards

Hubble Fellowship	2016
Eric R. Keto Prize for Ph.D. thesis in theoretical astrophysics at Harvard	2014
Bok Center "Excellence in Teaching" Award (2 times)	2010 & 2011
Prize Fellowship – Harvard University	2008
Carrier Scholarship – Cornell University	2004

Mentoring and Advising

I have served as a primary science adviser to the following students:

Ryan McKinnon — MIT Ph.D. student — 2014 —
Project: *Dust production and destruction in galaxy formation models*

Sarah Wellons — Harvard Ph.D. student — 2014 — 2017
Project: *The formation and evolution of massive, compact, high-redshift galaxies*

Stephen Chen — MIT undergraduate — 2015 — 2017
Project: *A physical model for the origin and fate of MgII absorbers*

Renato Guimaraes — MIT Summer Student — 2015
Project: *Comparative analysis of real and mock HUDF galaxy properties*

Francisco Machado — MIT undergraduate — 2014 – 2015
Project: *The impact of galaxy mergers on galaxy number density evolution*

I have served on the Ph.D. Thesis Defense Committee of the following students:

Bret Clauwens — Leiden Observatory — 2017

Proposals and Grants

PI allocations

PI on XSEDE Computing Grant (Award: 120k Node Hours; $33,292 value) 2017
PI on NASA HEC Computing Grant (Award: 1.1M CPU hours; $31,728 value) 2016
PI on XSEDE Computing Grant (Award: 894k CPU hours; $30,994 value) 2015

Co-I allocations

Co-I on NASA HST Cycle 25 Theory Grant (Award: $120,000) 2017
Understanding Galaxy Shapes Across Cosmic Time Using The IllustrisTNG Simulation

Co-I on NASA HST Cycle 25 GO program (Award: 6 orbits) 2017
Low redshift Lyman-alpha blobs

Co-I on NASA HST Cycle 24 Theory Grant (Award: $120,000) 2016
Combining Statistical Samples of Resolved-ISM Simulated Galaxies with Realistic Mock Observations to Fully Interpret HST and JWST Surveys

Co-I on NASA HST Cycle 24 GO program (Award: 6 orbits) 2016
Low redshift Lyman-alpha blobs

Co-I on NSF RUI Grant (Award: $260,000) 2015
Galaxy Encounters on FIRE: Decoding Interaction Induced Star Formation

Co-I on ALMA Cycle 3 (Award: 12 hours) 2015
Arp 220 Nuclear Disks at 50 mas Resolution

Co-I on NASA HST Cycle 22 Theory Grant (Award: $120,000) 2014
Observing the Origins of Galaxy Structure in the Illustris Simulation

Co-I on NASA HST Cycle 22 Theory Grant (Award: $120,000) 2014
Clusters of Galaxies in the last 5 Billion Years: from the Brightest Cluster Galaxy to the Intra-Cluster Light

Co-I on NOAO Gemini Proposal (Award: 16 hours on Gemini) 2012
Unveiling the Young Central Stellar Disk in Arp 193

Invited Talks and Seminars

Invited Review Talk — Lorentz Center — Quenching of Massive Galaxies Nov 2017
Colloquium — University of Flordia Oct 2017
Invited Conference Talk — GMT Science Meeting Sept 2017
Colloquium — University of Maryland March 2017
Colloquium — University of Virginia Feb 2017
Colloquium — Queen's University Nov 2016
Seminar — Monash University Oct 2016
Seminar — Swinburne University Oct 2016
Seminar — University of Western Australia/ICRAR Sept 2016
Invited Conference Talk — The Changing Face of Galaxies Sept 2016
Invited Conference Talk — Computing the Universe June 2016
Seminar — CU Pomona May 2016
Invited Conference Talk — Local and Global Processes in Galaxies April 2016
McGill — Colloquium Feb 2016
University of Montreal — Colloquium Feb 2016
University of Montreal — Seminar Feb 2016
CUPC — Invited Speaker Oct 2015
IMPS Seminar — UC Santa Cruz April 2015
Seminar – Fermi National Lab March 2015

Cosmology Seminar — Institute for Advanced Study	Oct 2014
Colloquium – Univ. of Hawaii	Oct 2013
TAC Seminar – Berkeley	Nov 2013
Extra-galactic Seminar – Herzberg Institute for Astrophysics	April 2013
Physics and Astro. Seminar – Univ. of Victoria	April 2013
Invited Conference Talk – Metals in an Evolving Universe	June 2012

Contributed Talks and Presentations

Annual Hubble Symposium	March 2017
Contributed Conference Talk — STScI Spring Symposium	April 2016
3DHST Data Release Conference — Yale	Nov 2015
MKI Visiting Committee — MIT	April 2015
Journal Club Presentation — Northwestern	March 2015
Contributed Conference Talk — AGN Conference in Chile	March 2015
Contributed Workshop Talk — AGN Ionization Echoes	March 2014
Galaxy Lunch Seminar — Cornell University	May 2014
GalRead — Princeton University	Jan 2014
Tea Talk — Caltech	Oct 2013
Lunch Seminar — MIT	Nov 2013
Contributed Conference Talk — First Annual AREPO Users Workshop	Sept 2013
Contributed Conference Talk — Feedback, Feeding, and Fireworks	June 2013
Contributed Conference Talk — Mergers in an Evolving Universe	Oct 2011
Extra-galactic Discussion Group — Univ. of Hawaii	March 2011
Astronomy Seminar — Australian National University	Sept 2011

Teaching

Discussion Leader and Guest Lecturer — MIT — Spring 2017
Course: 8.02 "*Introductory Electricity and Magnetism*"

Guest Lecturer — MIT — Spring 2017
Course: 8.03 "*Waves and Vibrations*"

Guest Lecturer — Harvard Extension School — Fall 2015
Course: "*Stars and Galaxies"*

Guest Lecturer — MIT — Fall 2015
Course: 8.902 "*Astrophysics II*"

Head Teaching Fellow (135 Students; 5 Staff) - Harvard University — Fall 2011
Course: "*The Energetic Universe*"

Teaching Fellow — Harvard University — Fall 2010
Course: "*The Energetic Universe*"

Service

Cambridge Science Festival Public Talk	2017
MIT Independent Activities Period Astrophysics Organizer	2017
NSERC External Funding Reviewer	2017
PRACE Proposal Reviewer	2017
NASA ATP Funding Panel	2016
MIT Postdoc Symposium Organizer	2016
MIT Open House Speaker	2016
MIT Astrophysics Seminar Organizer	2015 —
Science Judge — CUPC Astrophysics Category	2015

Science by the Pint — Featured Speaker (public outreach event)	2015
Main Street Partners — Consultant (advise small businesses on best practices)	2014 — 2015
Mentor — Harvard Graduate Student Mentoring Program	2013 — 2014
Graduate Admissions Committee — Harvard Astronomy Department	2014

Funding Panelist/Reviewer for:

NSF	2017
PRACE	2017
NSERC	2017
NASA ATP	2016

Referee for:

Nature Astronomy	2017 — Present
MNRAS	2012 — Present
ApJ	2015 — Present
ApJ Letters	2015 — Present

Professional Training

XSEDE Intel Xeon Phi Training	Nov 2014
Saas Fee Winter School	March 2013
Santa Cruz Computational Galaxy Formation Workshop	July 2012

Press

"The Story of God" — National Geographic filmed interview with Morgan Freeman
Air date: Spring 2016 (Content was sadly cut)

"Virtual Universe" — ABC filmed interview with Graham Phillips
Air date: Oct. 2015 (http://www.abc.net.au/catalyst/stories/4107265.htm)

"Seeing the Universe form before your eyes" — Interview with LA Times
Print date: May 2014 (http://www.latimes.com/science/sciencenow/la-sci-sn-illustris-universe-model-20140506-story.html)

"Galaxies out of a Supercomputer" — Press Release
Release date: May 2014 (h-its.org/scientific-news/in-nature-galaxies-out-of-a-supercomputer/)

"Recreating a Slice of the Universe" — Press Release
Release date: Aug. 2012 (http://www.cfa.harvard.edu/news/2012/pr201223.html)

Publications

First Author Papers

1. "*The Metallicity Evolution of Interacting Galaxies*"
   Torrey, Cox, Kewley, & Hernquist, ApJ., 746, 102, 2012

2. *"Moving Mesh Cosmology: The properties of gas disks"*
   Torrey, Vogelsberger, Sijacki, Springel, & Hernquist, , MNRAS., 427, 2224, 2012

3. *"A physical model for cosmological simulations of galaxy formation: multi-epoch model validation"*
   Torrey, Vogelsberger, Genel, Sijacki, Springel, & Hernquist, MNRAS., 438, 1985, 2014

4. *"The Illustris Simulation Observatory: A Catalog of Mock Galaxy Images and Spectra"*
   Torrey, Snyder, Vogelsberger, Hayward, Genel, Sijacki, Springel, Hernquist, Nelson, Kriek, Pillepich, Sales, McBride, MNRAS, 447, 2753, 2015

5. "*An analysis of the evolving comoving number density of galaxies in hydrodynamical simulations*"
   Torrey, Wellons, Machado, Griffen, Nelson, Rodriguez-Gomez, McKinnon, Pillepich, Ma, Vogelsberger, Springel, & Hernquist, MNRAS, 454, 2770, 2015

6. "*An instability of feedback regulated star formation in galactic nuclei*"
   Torrey, Hopkins, Faucher-Giguere, Vogelsberger, Quataert, Keres, & Murray, MNRAS, 467, 2301, 2017

7. "*Forward and Backward galaxy evolution in comoving number density space* "
   Torrey, Wellons, Ma, Hopkins, & Vogelsberger, MNRAS, 467, 4872, 2017

8. "*The evolution of the Mass-Metallicity relation in IllustrisTNG*"
   Torrey, Vogelsberger, Weinberger, Springel, Pakmor, Nelson, Genel, Pillepich, Marinacci, Naiman**,** & Hernquist, 2017, MNRAS submitted (arXiv 1711.05261)

9. "Similar evolution timescales for star formation rates and metallicity drive the fundamental metallicity relation"
   Torrey, Vogelsberger, Weinberger, Springel, Pakmor, Nelson, Genel, Pillepich, Marinacci, Naiman**,** & Hernquist, 2017, MNRAS submitted

10. "*Similar evolution timescales for star formation rates and metallicity drive the fundamental metallicity relation*"
    Torrey, Faucher-Giguere, Hopkins, Quataret, Vogelsberger, Ma, Angles-Alcazar, Feldman, Keres, & Murray, (in prep)

Second Author Papers Led by Students

11. *"The formation of massive, compact galaxies at z = 2 in the Illustris simulation"*
    Wellons, **Torrey**, Ma, Rodriguez-Gomez, Vogelsberger, Kriek, van Dokkum, Nelson, Genel, Pillepich, Springel, Sijacki, Snyder, Nelson, Sales, & Hernquist, MNRAS, 449, 361, 2015

12. *"Dust Formation in Milky Way-like Galaxies"*
    McKinnon, **Torrey**, & Vogelsberger, MNRAS, 457, 3775, 2016

13. "*The diverse evolutionary paths of simulated high-z massive, compact galaxies to z = 0*"
    Wellons, **Torrey**, Ma, Rodriguez-Gomez, Pillepich, Nelson, Genel, Vogelsberger, & Hernquist, MNRAS, 456, 1030, 2016

14. "*An improved probabilistic approach for linking progenitor and descendant galaxy populations using comoving number density*"
    Wellons & **Torrey**, MNRAS, 467, 3887, 2017

15. "*Simulating the dust content of galaxies: successes and failures*"
    McKinnon, **Torrey**, Vogelsberger, Hayward, & Marinacci, MNRAS, 468, 1505, 2017

16. "*Galaxies in the Illustris simulation as seen by the Sloan Digital Sky Survey - I: Bulge+disc decompositions, methods, and biases*"
    Bottrell, **Torrey**, Simard, & Ellison, MNRAS, 467, 1033, 2017

17. "*Galaxies in the Illustris simulation as seen by the Sloan Digital Sky Survey - II: Size-luminosity relations and the deficit of bulge-dominated galaxies in Illustris at low mass*"
Bottrell, **Torrey**, Simard, & Ellison, MNRAS, 467, 2879, 2017

Other Second Author Papers

18. "*An Integral Field Study of Abundance Gradients in nearby Luminous Infrared Galaxies"*
Rich, **Torrey**, Kewley, Dopita, & Rupke, ApJ., 753, 5, 2012

19. *"Galaxy pairs in the Sloan Digital Sky Survey – VI. The orbital extent of enhanced star formation in interacting galaxies"*
Patton, **Torrey**, Ellison, Mendel, & Scudder, MNRAS., 433, L59, 2013

20. *"The Slow Flow Model of Dust Efflux in Local Star-Forming Galaxies"*
Zahid, **Torrey**, Kudritzki, Kewley, Dave,& Geller, MNRAS., 436, 1852, 2013

21. *"Emperical Constraints for the Magnitude and Composition of Galactic Winds"*
Zahid, **Torrey**, Vogelsberger, Hernquist, Kewley, & Dave, Ap&SS, 349, 873, 2013

22. *"Galaxy mergers on a moving mesh: a comparison with smoothed-particle hydrodynamics"*
Hayward, **Torrey**, Springel, Hernquist, & Vogelsberger, MNRAS., 422, 1992, 2014

23. *"Mapping star formation in simulated galaxy encounters: Are interaction-induced starbursts nuclear or extended?"*
Moreno, **Torrey**, Ellison, Patton, Bluck, Bansal, & Hernquist, MNRAS, 448, 1107, 2015

24. "*On the Cosmic Evolution of Mg/Fe in QSO Absorption Line Systems*"
Dey, **Torrey**, Rubin, Zhu, Menard, & Suresh, MNRAS, 451, 2806, 2015

25. *"Illustris Simulation Observatory II: Non-Parametric Galaxy Morphology at z=0"*
Snyder, **Torrey**, Lotz, Genel, McBride, Vogelsberger, Xu, Pillepich, Nelson, Sijacki, Hernquist, & Springel, MNRAS, 454, 1886, 2015

26. *"Stellar & Quasar Feedback in Concert: Effects on AGN Accretion, Obscuration, and Outflows"*
Hopkins, **Torrey**, Faucher-Giguere, Quataert, & Murray, MNRAS, 458, 816, 2016

Co-Authored Papers

27. *"Galaxy pairs in the Sloan Digital Sky Survey – VI. The orbital extent of enhanced star formation in interacting galaxies"*
Scudder, Ellison, **Torrey**, Patton, & Mendel, MNRAS., 426, 549, 2012

28. *"A physical model for cosmological simulations of galaxy formation"*
Vogelsberger, Genel, Sijacki, **Torrey**, Springel, & Hernquist, MNRAS., 436, 3031, 2013

29. *"The Dynamics of Galaxy Pairs in a Cosmological Setting"*
Moreno, Bluck, Ellison, Patton, **Torrey**, & Moster, MNRAS., 436, 1765, 2013

30. "*Properties of galaxies reproduced by hydrodynamic simulations*"
Vogelsberger, Genel, Springel, **Torrey**, Sijacki, Xu, Snyder, Bird, Nelson & Hernquist, Nature., 507, 177, 2014

31. *"Halo assembly exposed in the faint outskirts: the stellar and dark matter haloes of Illustris galaxies"*
Pillepich, Vogelsberger, Deason, Rodriguez-Gomez, Genel, Nelson, **Torrey**, Sales, Marinacci, Springel, Sijacki, & Hernquist, MNRAS, 444, 237, 2014

32. *"Introducing the Illustris Project: Simulating the coevolution of dark and visible matter in the Universe"*
Vogelsberger, Genel, Springel, **Torrey**, Sijacki, Xu, Snyder, Bird, Nelson & Hernquist, MNRAS, 444, 1518, 2014

33. "*The Illustris Simulation: the evolution of galaxy populations across cosmic time*"

Genel, Voglesberger, Springel, Sijacki, Nelson, Snyder, Rodriguez-Gomez, **Torrey**, & Hernquist, MNRAS, 445, 175, 2014

34. *"Damped Lyman-alpha absorbers as a probe of feedback on a moving mesh"*
Bird, Vogelsberger, Haehnelt, Springel, Hernquist, **Torrey**, & Sijacki, MNRAS, 445, 2313, 2014

35. "*The colors of satellite galaxies in the Illustris Simulation*"
Sales, Vogelsberger, Genel, **Torrey**, Nelson, Rodriguez-Gomez, Wang, Pillepich, Sijacki, Springel, & Hernquist, MNRAS, 447, L6, 2015

36. *"Star-forming galaxies and the star formation main sequence in the Illustris simulation"*
Sparre, Hayward, Springel, Vogelsberger, Genel, **Torrey**, Nelson, Sijacki, & Hernquist, MNRAS, 447, 3548, 2015

37. "*The neutral gas content of post-merger galaxies: implications for the role of gas in modulating star formation rates*"
Ellison, Fertig, Rosenberg, Nair, Simard, **Torrey**, & Patton, MNRAS, 448, 221, 2015

38. "*The Role of Galactic Outflows in the circumgalactic Medium*"
Suresh, Bird, Vogelsberger, Genel, **Torrey**, Sijacki, Springel, & Hernquist, MNRAS, 448, 895, 2015

39. *"The merger rate of galaxies in the Illustris Simulation: a comparison with observations and semi-emperical models"*
Rodriguez-Gomez, Genel, Vogelsberger, Sijacki, Pillepich, Sales, **Torrey**, Snyder, Nelson, Springel, Ma, Hernquist, MNRAS, 449, 49, 2015

40. *"The impact of feedback on cosmological gas accretion"*
Nelson, Genel, Vogelsberger, Springel, Sijacki, **Torrey**, & Hernquist, MNRAS, 448, 59, 2015

41. *"Galaxy Pairs in the Sloan Digital Sky Survey – X: Does gas content drive star formation rate enhancement in galaxy pairs?"*
Scudder, Ellison, Momjian, Rosenberg, **Torrey**, Fertig, Patton, & Mendel, MNRAS, 449, 3719, 2015

42. *"Hot Gaseous Coronae around Spiral Galaxies: Probing the Illustris Simulation"*
Bogdan, Vogelsberger, Kraft, Hernquist, Gilfanov, **Torrey**, Churazov, Genel, Forman, Murray, Vikhlinin, Jones, & Boehringer, ApJ, 804, 72, 2015

43. *"The Illustris simulation: Evolving population of black holes across cosmic time"*
Sijacki, Vogelsberger, Genel, Springel, **Torrey**, Snyder, Nelson, & Hernquist, MNRAS, 452, 575, 2015

44. *"The Illustris Simulation: Public Data Release"*
Nelson, Pillepich, Genel, Vogelsberger, Springel, **Torrey**, Rodriguez-Gomez, Sijacki, Snyder, Griffen, Marinacci, Blecha, Sales, Xu, & Hernquist, A&C, 13, 12, 2015

45. *"Hydrogen Reionization in the Illustris Universe"*
Bauer, Springel, Vogelsberger, Genel, **Torrey**, Sijacki, Nelson, & Hernquist, MNRAS, 453, 3593, 2015

46. *"The Incidence of Low-Metallicity Lyman-Limit Systems at Z=3.5: Implications for the Cold-Flow Hypothesis of Baryonic Accretion"*
Cooper, Simcoe, Cooksey, O'Meara, & **Torrey**, ApJ, 812, 58, 2015

47. "*Large-Scale Mass Distribution in the Illustris Simulation*"
Haider, Steinhauser, Vogelsberger, Genel, Springel, **Torrey**, & Hernquist, MNRAS, 457, 3024, 2016

48. "*Recoiling black holes: prospects for detection and implications of spin alignment*"
Blecha, Sijacki, Kelley, **Torrey**, Vogelsberger, Nelson, Genel, Springel, Snyder, & Hernquist, MNRAS, 456, 961, 2016

49. "*Modelling galactic conformity with the colour-halo age relation in the Illustris simulation*"
Bray, Pillepich, Sales, Zhu, Genel, Rodriguez-Gomez, **Torrey**, Nelson, Vogelsberger, Springel, Eisenstein, & Hernquist, MNRAS, 455, 185, 2016

50. "*On the assembly of dwarf galaxies in clusters and their efficient formation of globular clusters*"

Mistani, Sales, Pillepich, Sanchez-Janssen, Vogelsberger, Genel, Nelson, Rodriguez-Gomez, Sijacki, **Torrey**, Springel, & Hernquist, MNRAS, 455, 2323, 2016

51. "*The mass profile of the Milky Way to the virial radius from the Illustris simulation*"
Taylor, Boylan-Kolchin, **Torrey**, Vogelsberger, & Hernquist, MNRAS, 461, 3483, 2016

52. "*Galaxy Pairs in the Sloan Digital Sky Survey XIV. - The Influence of the Closest Companion*"
Patton, Qamar, Ellison, Bluck, Simard, Mendel, Moreno, & **Torrey**, MNRAS, 461, 2589, 2016

53. "*The stellar mass assembly of galaxies in the Illustris simulation: growth by mergers and the spatial distribution of accreted stars*"
Rodriguez-Gomez, Pillepich, Sales, Genel, Vogelsberger, Zhu, Wellons, Nelson, **Torrey**, Springel, & Hernquist, MNRAS, 458, 2371, 2016

54. "The role of mergers and halo spin in shaping galaxy morphology"
Rodriguez-Gomez, Sales, Genel, Pillepich, Griffen, **Torrey**, Snyder, Nelson, Springel, Ma, & Hernquist, MNRAS, 467, 3083, 2017

55. "The impact of galactic properties and environment on the quenching of central and satellite galaxies at fixed central velocity dispersion"
Bluck, Mendel, Ellison, Patton, Simard, Henriques, Torrey, Teimoorinia, Moreno, & Starkenburg, MNRAS, 462, 2559, 2016

56. "The Missing Satellite Problem in 3D"
Nierenberg, Treu, Menci, Lu, **Torrey**, & Vogelsberger, MNRAS, 462, 4473, 2016

57. "The CALIFA and HIPASS circular velocity function for all morphological galaxy types"
Bekeraite, Walcher. Wisotzki, Croton, Falco n-Barroso, Lyubenova, Obreschkow, Sa nchez, Spekkens; van de Ven, Zwaan, Ascasibar, Bland-Hawthorn, Gonzalez Delgado, Husemann, Marino & **Torrey**, ApJ, 827, 36, 2016

58. "Why do high-redshift galaxies show diverse gas-phase metallicity gradients?"
Ma, Hopkins, Feldmann, **Torrey**, Faucher-Giguere, Keres, & Quataert, MNRAS, 466, 4780, 2017

59. "About AGN ionization echoes, thermal echoes and ionization deficits in low-redshift Lyα blobs"
Schirmer, Malhotra, Levenson, Fu, Davies, Keel, **Torrey**, Bennert, Pancoast, & Turner, MNRAS, 463, 1554, 2016

60. "Massive Close Pairs Measure Rapid Galaxy Assembly in Mergers at High Redshift"
Snyder, Lotz, Rodriguez-Gomez, da Silva Guimaraes, **Torrey**, Hernquist, MNRAS, 468, 207, 2017

61. "The role of mergers and halo spin in shaping galaxy morphology"
Rodriguez-Gomez, Sales, Genel, Pillepich, Zjupa, Nelson, Griffen, **Torrey**, Snyder, Vogelsberger, Springel, Ma, & Hernquist, MNRAS, 467, 2083, 2017

62. "Simulating galaxy formation with black hole driven thermal and kinetic feedback"
Weinberger, Springel, Hernquist, Pillepich, Marinacci, Pakmor, Nelson, Genel, Vogelsberger, Naiman, & **Torrey** MNRAS, 465, 3291, 2017

63. "Metal flows of the circumgalactic medium, and the metal budget in galactic halos"
Muratov, Keres, Faucher-Giguere, Hopkins, Ma, Angles-Alcazar, Chan, **Torrey**, Hafen, Quataert, & Murray MNRAS, 468, 4170, 2017

64. "FIRE-2 Simulations: Physics versus Numerics in Galaxy Formation"
Hopkins et al., (25 coauthors, including Torrey), MNRAS (submitted arXiv:1702:06148)

65. "Log-normal star formation histories in simulated and observed galaxies"
Diemer, Sparre, Abramson, & **Torrey** ApJ, 839, 26, 2017

66. "Simulating Galaxy Formation with the IllustrisTNG Model"
Pillepich, Springel, Nelson, Genel, Naiman, Pakmor, Hernquist, **Torrey**, Vogelsberger, Weinberger, & Marinacci, MNRAS, (submitted, arXiv:1703:02970)

67. *"MgII Absorption at 2<z<7 with Magellan/FIRE, III. Full Statistics of Absorption Towards 100 High-Redshift QSOs"*
Chen, Simcoe, **Torrey**, Bañados, Cooksey, Cooper, Furesz, Matejek, Miller, Turner, Venemans, Decarli, Farina, Mazzucchelli &Walter ApJ, (submitted, arXiv:1612.02829)
68. *"Black Holes on FIRE: Stellar Feedback Limits Early Feeding of Galactic Nuclei"*
Angles-Alcazar, Faucher-Giguere, Quataert, Hopkins, Feldmann, **Torrey**, Wetzel, & Keres, MNRAS, submitted (arxiv:1707.03832)

69. *First results from the IllustrisTNG simulations: the stellar mass content of groups and clusters of galaxies*
Pillepich, Nelson, Hernquist, Springel, Pakmor, **Torrey**, Weinberger, Genel, Naiman, Marinacci, & Vogelsberger, MNRAS (submitted, arxiv:1707.03406)

70. *First results from the IllustrisTNG simulations: the galaxy color bimodality*
Nelson, Pillepich, Springel, Weinberger, Hernquist, Pakmor, Genel, **Torrey**, Vogelsberger, Kauffmann, Marinacci, & Naiman, MNRAS (submitted, arxiv:1707.03395)

71. *First results from the IllustrisTNG simulations: radio haloes and magnetic fields*
Marinacci, Vogelsberger, Pakmor, **Torrey**, Springel, Hernquist, Nelson, Weinberger, Pillepich, Naiman, & Genel, MNRAS (submitted, arxiv:1707.03396)

72. *First results from the IllustrisTNG simulations: A tale of two elements -- chemical evolution of magnesium and europium*
Naiman, Pillepich, Springel, Ramirez-Ruiz, **Torrey**, Vogelsberger, Pakmor, Nelson, Marinacci, Hernquist, Weinberger, & Genel, MNRAS (submitted, arxiv:1707.03401)

73. *First results from the IllustrisTNG simulations: matter and galaxy clustering*
Springel, Pakmor, Pillepich, Weinberger, Nelson, Hernquist, Vogelsberger, Genel, **Torrey**, Marinacci, & Naiman, MNRAS (submitted, arxiv:1707.03397)

74. *The uniformity and time-invariance of the intra-cluster metal distribution in galaxy clusters from the IllustrisTNG simulations*
Vogelsberger, Marinacci, **Torrey**, Genel, Springel, Weinberger, Pakmor, Hernquist, Naiman, Pillepich, & Nelson, MNRAS, submitted (arxiv:1707.05318)

75. *The Size Evolution of Star-forming and Quenched Galaxies in the IllustrisTNG simulation*
Genel, Nelson, Pillepich, Springel, Pakmor, Weinberger, Hernquist, Naiman, Vogelsberger, Marinacci, & **Torrey**, MNRAS, submitted (arxiv:1707.05327)

76. *Supermassive black holes and their feedback effects in the IllustrisTNG simulation*
Weinberger, Springel, Pakmor, Nelson, Genel, Pillepich, Vogelsberger, Marinacci, Naiman, **Torrey,** & Hernquist, MNRAS, submitted (arxiv:1710.04659)

77. *A census of cool core galaxy clusters in IllustrisTNG*
Barnes, Vogelsberger, Kannan, Marinacci, Weinberger, Springel, **Torrey,** Pillepich, Nelson, Pakmor, Naiman, Hernquist, & McDonald, MNRAS, submitted (arxiv:1710.08420)

VASQUEZ,RYAN CAESAR
Multimedia News Manager, Audio
University of Florida
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Gainesville, Florida 32611
(352) 294-1500; rvasquez@wuft.org

Education
University of Florida
Bachelor of Science Telecommunication News 2006
Minor: Sociology

University of Alabama
Master of Science in Interactive Technology 2014

Teaching Experience:
University of Alabama
Adjunct Instructor- Fundamentals of Electronic Media (TCF 332) 2011-2014
Developed syllabus and overall course structure, and administered all grades.

University of Florida
Adjunct Instructor- Advanced Audio Storytelling (RTV 3304) 2015-Current
Developed syllabus and overall course structure, and administered all grades.

Adjunct Instructor- Audio News and Reporting (RTV 3303) 2018-Current
Developed syllabus and overall course structure, and administered all grades.

Professional Experience:
University of Florida/WUFT
Multimedia News Manager, Audio Dec. 2014 – Current
Editorial control over radio content for WUFT. Trains students and leads major projects to produce features, documentaries, and podcasts.

Alabama Public Radio
All Things Considered Host/Reporter Sept. 2007 – Nov. 2014
Hosted local edition of All Things Considered and delivered local newscasts.
Reported and produced feature content to air on radio.

Closely-Related Projects:
From the Front Lines - 2020

First a daily, then weekly podcast that provided updates on the COVID-19 pandemic in Florida with a particular focus on North Central Florida.

After the Eye - 2019

Helped compile stories from a TV documentary project and edit them into a radio documentary for air. This project looks at the impact Hurricane Michael had on Florida's Forgotten Coast.

After Irma: What's Next for Florida - 2017
Radio documentary looking at the impact both immediate and long-term that Hurricane Irma had on the state of Florida.

Awards Received While at UF:

Regional Edward R. Murrow Award – Overall Excellence Small Market Radio 2016
Florida Associated Press Broadcasters - Best Public Affairs 2017
Florida Associated Press Broadcasters – Best Public Affairs 2018
Regional Edward R. Murrow Award – Overall Excellence Small Market Radio 2018
Regional Edward R. Murrow Award – Best News Documentary Small Market Radio 2018
Florida Association of Broadcast Journalists – Best Public Affairs 2019
NBS-Aerho – Best Audio Magazine Program 2019
Regional Edward R. Murrow Award – Best News Documentary Small Market Radio 2020
Regional Edward R. Murrow Award – Best News Documentary Small Market TV 2020
Public Media Journalists Association – First Place Division C Long Documentary 2020
Public Media Journalists Association – First Place Division C Multi-Media Presentation 2020
Regional Edward R. Murrow Award – Best Podcast Small Market Radio 2021
Regional Edward R. Murrow Award - Best News Documentary Small Market Radio 2021

Synergistic Activities:

- Served on the CJC Budget Principles Task Force and CJC Onboarding Task Force in 2020 and CJC Climate Questionnaire Task Force and CJC Staff Council Task Force in 2021.
- Currently serving on the CJC Inclusion, Diversity, and Equity Committee as Staff Chair and serving on the CJC Staff Council as Chair. Also, currently serving on the UF Fairness and Equity in Assessment Task Force.
- Co-PI for a $20,000 Broadcasting Hope Grant from the Florida Humanities Council to develop a podcast that localizes and diversifies the K-12 social studies curriculum in Alachua County Schools.
- Judge for the Florida Scholastic Press Association's podcasting categories, as well as a judge for the $25,000 Collier Prize for Investigative Journalism. In addition, currently serving on the Society of Professional Journalists Awards Committee and have judged Mark of Excellence and Sigma Delta Chi competitions.
- Awarded the 2021 UF Superior Accomplishment Award in Division 3 Academic Affairs Administrative/Supervisory

Curriculum Vitae – Stefan Gerber

Soil and Water and Ecosystem Sciences Department
University of Florida IFAS
phone: 3522943174
sgerber@ufl.edu

a) Education and Training

Federal Institute of Technology Zurich, Switzerland	Earth Sciences	Diploma (2000)
University of Bern, Switzerland	Climate/Biogeochemistry	PhD (2003)
Princeton University	Climate/Biogeochemistry	Post-doc (2004-2010)

b) Research and Professional Experience

Since 2018	Associate Professor, Soil and Water Sciences Department, University of Florida
2011-2018	Assistant Professor, Soil and Water Sciences Department, University of Florida
2004-2011	Post-doctoral Researcher, Ecology and Evolutionary Biology and Woodrow Wilson School of Public and International Affairs, Princeton University
2004	Post-doctoral Researcher, Climate and Environmental Physics, University of Bern
2000-2003	Research Assistant, Climate and Environmental Physics, University of Bern

c) Expertise

Modeling biogeochemical cycles and interactions with climate to understand carbon sequestration, and greenhouse gas emissions from terrestrial system. The models include global models that can be coupled to an Earth system as well as the development of mathematically tractable solutions to specific problems, such as soil-root interactions. The most significant model development is the addition of a complete nitrogen cycle to the land component of an Earth system model. Simplified tractable models developed have been used to data interpretation, form new hypotheses as well as explore the scope and limits of existing and future complex models.

d) Publications

i) 5 most relevant (chronological)

1. Wilson, Chris H., and Stefan Gerber. “Theoretical Insights from Upscaling Michaelis–Menten Microbial Dynamics in Biogeochemical Models: A Dimensionless Approach.” Biogeosciences 18, no. 20 (October 21, 2021): 5669–79. https://doi.org/10.5194/bg-18-5669-2021.Sihi, D., P. W. Inglett, S. Gerber, and K. S. Inglett. 2018. Rate of warming affects temperature sensitivity of

anaerobic peat decomposition and greenhouse gas production. Global Change Biology 24:e259–e274.
2. Tian, H., J. Yang, C. Lu, R. Xu, J. G. Canadell, R. B. Jackson, A. Arneth, et al. 2018. The Global N2O Model Intercomparison Project. Bulletin of the American Meteorological Society 99:1231–1251.
3. Huang, Y., and S. Gerber. 2016. Nitrogen restrictions buffer modeled interactions of water with the carbon cycle. Journal of Geophysical Research: Biogeosciences 121:218–232.
4. Gerber, S., L. O. Hedin, S. G. Keel, S. W. Pacala, and E. Shevliakova. 2013. Land use change and nitrogen feedbacks constrain the trajectory of the land carbon sink. Geophysical Research Letters 40:5218–5222.
5. Gerber, S., L. O. Hedin, M. Oppenheimer, S. W. Pacala, and E. Shevliakova. 2010. Nitrogen cycling and feedbacks in a global dynamic land model. Global Biogeochemical Cycles 24:GB1001.

ii) *other significant publications*

1. Rodriguez, A. F., S. Gerber, and S. H. Daroub. 2020. Modeling soil subsidence in a subtropical drained peatland. The case of the everglades agricultural Area. Ecological Modelling 415:108859.
2. Sihi, D., S. Gerber, P. W. Inglett, and K. S. Inglett. 2016. Comparing models of microbial–substrate interactions and their response to warming. Biogeosciences 13:1733–1752.
3. Gerber, S., and E. N. J. Brookshire. 2014. Scaling of physical constraints at the root-soil interface to macroscopic patterns of nutrient retention in ecosystems. The American Naturalist 183:418–430.
4. Gerber, S., L. O. Hedin, S. G. Keel, S. W. Pacala, and E. Shevliakova. 2013. Land use change and nitrogen feedbacks constrain the trajectory of the land carbon sink. Geophysical Research Letters 40:5218–5222.
5. E.N.J. Brookshire, S. Gerber, J. Webster, J.M. Vose, W.T. Swank, 2011, Direct effects of temperature on forest nitrogen cycling revealed through analysis of long-term watershed records. Global Change Biology 17, 297-308 (2011).

e) Other, Synergistic Activities

- Expert reviewer of the first order draft Working Group I (WGI) contribution to the Intergovernmental Panel on Climatic Change (IPCC, 2013).
- Panel member US Department of Energy, 2020, Career Proposal Review,
- NSF Division of Environmental Biology Preliminary Proposal Review Panel 2016
- Grant Reviewer for the Netherlands Science Council
- Development Task Group for the Grand-Challenge Course “Climate Change Science and Society” expected to become mandatory for all University of Florida freshmen.

Appendix F

Common Prerequisite Request Form

Common Prerequisite Request

Submission Directory Information

Name of Institution:	University of Florida
Name of Person Making the Initial Request:	Mr. Stephen Mullens
Title for the Person Listed Above:	Assistant Instructional Professor
Signature of Institution Common Prerequisite Liaison:	
Date of Submission:	

Academic Program Information:

Name of Academic Degree Program: Bachelor of Science in Meteorology
Six Digit CIP Code: 40.0499
Type of Baccalaureate Degree (Bachelor of Science, Bachelor of Arts, etc.): Bachelor of Science
Credit Hours to Degree for the program: 120
Is this program officially designated limited access? No

Related Current Common Prerequisite Manual Information:

Is there currently a baccalaureate degree in the CIP listed above in the Common Prerequisite Manual?

There are no baccalaureate degree programs for a 40.0499 CIP code in the Common Prerequisite Manual.

Is this a request to:

1. Add your institution to the Common Prerequisite Manual without making curriculum changes to the Manual?
    a. If so, which "track" is requested?
2. Add Course(s) and/or Course Alternative(s)?
3. Eliminate Course(s) or Alternatives?
4. Establish a common prerequisite page in a six-digit CIP not currently established in the manual? **Yes.**
5. Establish a completely new "track"?
    a. If so, please specify how your program is different than those programs already found under this CIP code. Why do you need a new track?

    Please provide the following information:

Track Number	Proposed Track Name	Justification for Additional Track

A description of your program's curriculum must be attached.

6. Change credit hour to degree listing for your institution's program?
    a. If so, please specify your degree program length.

   b. If your degree program is more than 120 semester credit hours, has the Board of Governors approved the request to exceed 120?
7. Change the limited access standing for your institution's program?
   a. If requesting removal of limited access status, has the Board of Governors approved the removal?
8. Change your program's CIP code in the Manual?
   a. Has the Board of Governors approved your request to change CIP codes?
   b. Please list the former and the currently approved CIP codes:
      From CIP:
      Moved to CIP:
9. Are the common prerequisites for the degree remaining the same?
10. Adding Course(s) and/or Course Alternative(s):

After checking to determine access to courses for Florida College System students (https://flscns.fldoe.org/), please list the following information **for each course or alternative that you would like added (add rows if necessary)**:

Course Prefix and Number	Course Title	# of Credit Hours	Justification for addition	Is this course offered at more than 3 Florida College System institutions?
MAC2311	Analytic Geometry and Calculus 1	4	Calculus helps quantify meteorological values, helping us understand its current state and make predictions.	Yes
MAC2312	Analytic Geometry and Calculus 2	4	Calculus helps quantify meteorological values, helping us understand its current state and make predictions.	Yes
CHM2045	General Chemistry 1	3	Chemistry helps students understand how water acts in various states of matter and transfers between states of matter. It also informs how atmospheric molecules interact.	Yes
PHY2048	Physics with Calculus 1	3	Meteorology is a physical science, and knowledge of Newtonian mechanics is required.	Yes
PHY2048L	Laboratory for Physics with Calculus 1	1	Practical applications of Newtonian mechanics aid student understanding of the material.	Yes

Does the recommendation above still provide course options for the Florida College System and other State University System institution students? Yes.

a. If no, how will you ensure access for these transfer students?

Eliminating Course(s) and/or Course Alternative(s): Please list the following information for **each course or alternative that you would like to eliminate (add rows if necessary)**:

Course Prefix and Number	Course Title	Justification for elimination

11. Establish a new six-digit CIP listing in the Common Prerequisite Manual (there are currently no programs listed in this CIP)

Please provide the following information:

Six-Digit CIP	Proposed Name	Justification for New CIP
40.0499	Applied Meteorology	"This program focuses on the scientific study of the composition and behavior of the atmosphere, the effect of earth's atmosphere on terrestrial weather and climate, and how prediction of atmospheric motion and climate change relate to organizational decision-making. Includes instruction in weather phenomena, general circulation patterns, atmospheric dynamics, atmospheric predictability, numerical and statistical analysis, climatology and climate change, precipitation processes, forecasting techniques, and risk communication." The addition of communication and decision-making to the main focus on atmospheric processes more fully captures the holistic proposed program.

12. Establish a new "track" in the Common Prerequisite Manual

CIP Change:

From CIP:

Moved to CIP:
Are the common prerequisites for the degree remaining the same?

Accessibility:

Number of Credit Hours for AA	60
Subtract Number of Credit Hours Required for Common Prerequisites	- 15
Add the Number of Credit Hours for Common Prerequisites that are also general education core requirements	+ 15
Total number of semester hours left to complete the rest of the student's general education requirements	= 60

If a student does not have enough room in the "total" above to complete the rest of general education requirements, please provide a justification for requiring more common prerequisite course credit hours than can be accommodated by the student in 60 semester hours:

With these recommendations, how does your institution propose to assist transfer students in avoiding time to degree?

Appendix I

Letter of Support from FIU

FIU FLORIDA INTERNATIONAL UNIVERSITY

Department of Earth and Environment

July 15, 2022

To: Mr. Stephen Mullens, University of Florida
From: Leonard J. Scinto, Chair, EE
Re: FIU response to UF Meteorology New Degree Program proposal

Dear Mr. Mullens et al.:

The Department of Earth and Environment and Florida International University (EE/FIU) offers an Atmospheric Sciences Major in our BS in Geosciences degree program. The "Request to Offer a New Degree Program" as a BS in Meteorology in the Department of Geography at the University of Florida (UF) was reviewed by the EE Departmental Chair, the Curriculum Chair, and several members of the Meteorology Faculty. The synopsis of these reviews suggests that this new program would likely compete in some ways with our program but more likely with those of other SUS Universities (namely FSU). However, rather than viewing this as direct competition, increasing activity in this field may synergistically benefit by collaborations among an increased number of partners. FIU has close relations with NHC, the Miami WFO, and AOML/HRD. FIU's Civil Engineering is actively involved in hurricane damage assessment with the Wall of Wind. National institutions such as the NOAA labs Boulder CO and Norman OK facilitate multi-university programs and vice-versa. FIU brings a good deal to the table, as do our potential partners.

Additionally, and as used as a justification for the UF program, is that there is a high demand for atmospheric scientists in Florida. In addition to the private and broadcast sectors, their graduates also target on the employments at Federal and state meteorological agencies. They have three tracks in the proposed program: (a) Applied Meteorology, Hazards, and Global Change track; (b) General Atmospheric Science track; and (c) Broadcast Meteorology track. Their proposed curriculum in the General Atmospheric Science track meets the Federal civil service requirements GS1340 and AMS guidelines for meteorologist positions.

The FIU graduates are sought by NWS and NOAA because they are good but also because they meet the GS1340 qualifications for employment in the federal Civil Service as a meteorologist and AMS educational requirements for certification as a Consulting or Broadcast Meteorologist. Also, many of our graduates are native Spanish speakers. NOAA's approach to diversity is their workforce should look like the country. We help them meet that goal.

Department of Earth & Environment /College of Arts, Sciences, and Education
I1200 SW 8th St AHC5-360, Miami, FL 33199 Tel: (305) 348-2365, or (305) 348-1930, Fax: (305) 348-3877
https://earthenvironment.fiu.edu/

The demographics of FIU and UF students are very different. Quickly browsing data on the web yields the following approximate percentages:

	% Latino/Hisp	% White	% Black	% Asian
FIU	65	10	12	2
UF	23	51	6	9

About 50% of FIU undergraduates transfer from the State College system with an AA. A majority of FIU students are permanent residents of Miami-Dade, Broward and Palm Beach Counties. It is unclear if a South Florida local student interested in meteorology would be attracted to a meteorology degree in the Department of Geography at UF over the major in the BS in Geoscience at FIU.

In summation, the Department of Earth and Environment at FIU Faculty have no direct objection to this program at UF as (a) demand for graduates is seemingly greater than supply, (b) the demographics of the populations served seem culturally and geographically distinct, and (c) the opportunities for collaboration, if nurtured, could provide greater benefits than the detriments of direct competition. To this last point, our Agroecology program has been very successful and has developed a cooperative relationship with UF, mostly through their TREC facility. I am sure there are other areas of cooperation as well between FIU and UF and something like this program might enhance these relationships.

Sincerely,

Leonard J. (Len) Scinto

Additional Required Signatures

I confirm that I have reviewed and approved Need and Demand Section III.F. of this proposal

08/01/2022

Signature of Equal Opportunity Officer **Date**

I confirm that I have reviewed and approved Non-Faculty Resources Section VIII.A. and VIII.B. of this proposal.

7/27/2022

Signature of Library Dean/Director **Date**

UF | Board of Trustees
UNIVERSITY of FLORIDA

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC3
September 7, 2023

SUBJECT: Specialized Admissions Program Approval

BACKGROUND INFORMATION

Pursuant to Board of Governors Regulation 8.013, each State University System institution may request approval of certain undergraduate degree programs as specialized admissions programs upon request if they meet the criteria as outlined in the regulation.

The College of the Arts is requesting specialized admissions for the Bachelor of Science in Music Business and Entrepreneurship (CIP Code 50.1003) to require a musical audition and portfolio demonstrating skills necessary for success in the completion of the degree requirements. Applicants will demonstrate a level of instrument/voice proficiency necessary for participation in a range of musical ensemble types and musical styles, as well as music reading proficiency necessary for success in core coursework.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the Specialized Admissions Program Approval as reflected in the attached for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is required.

Supporting Documentation Included: BOG Specialized Admissions Status Initial Approval Request Form

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023

_____ _____

Morteza "Mori" Hosseini, Chair Ben Sasse, President and Corporate Secretary

STATE UNIVERSITY SYSTEM OF FLORIDA

Board of Governors, State University System of Florida
Specialized Admissions Status
Initial Approval Request Form
In Accordance with Board of Governors Regulation 8.013, Specialized Admissions

INSTITUTION: University of Florida

DEGREE PROGRAM: Bachelor of Science in Music Business and Entrepreneurship

CIP CODE 50.1003 **Effective Academic Year.** Fall 2024

1. Does this request for specialized admissions status apply to the whole degree program? If no, please specify which major(s) or track(s) are seeking the status.

   Yes, the whole degree program.

2. Which criteria for specialized admissions status does the program meet?

   ☐ Limited Resources (if approved, the status will last a maximum of four years)

   ☒ Minimal Skills (if approved, the status will last a maximum of five years)

   ☐ Accreditation Requirements (If checked, you must also select either limited resources or minimal skills)

3. Provide a rationale for why the program meets the criteria selected above.
   - If the program is seeking specialized admissions status due to limited resources, provide details regarding which types of resources are limited and how the current demand for the program outpaces these resources.
   - If seeking specialized admission status based on accrediting body requirements, please include the name of the accrediting body and a direct link to or copies of the specific standard(s) which require the requested status.

   The BS requires a musical audition and portfolio demonstrating skills necessary for success in the completion of degree requirements. Through a portfolio of relevant experiences, applicants will demonstrate a capacity for successful coursework and activity in music business applications. Applicants will also demonstrate a level of instrument/voice proficiency necessary for participation in a range of musical ensemble types and musical styles, as well as music reading proficiency necessary for success in core coursework. Students are notified of their admission status in the School of Music separately from their admission status to the University of Florida.

4. If the program is seeking specialized admissions status due to limited resources and/or is a Program of Strategic Emphasis, provide the institution's plan and timeline for increasing program resources. If the institution does not plan to increase capacity over the next few years, please provide a rationale. ☒ Not applicable.

   The BS is not a program of Strategic Emphasis.

5. If approved for specialized admissions status, what will be the program's admissions requirements? Additionally, please indicate how these requirements and procedures

Text

ensure equal access for qualified Florida College System Associates in Arts graduates competing for available space in the program.

If approved for specialized admission status, admission requirements will remain as they are. An audition/review process will remain for admission to the School of Music to pursue a BS. As is the case for incoming freshman, applicants with an Associates in Arts degree would also be required to pass an admission audition for placement into the program.

6. What is the current race and gender profile of the program? Describe the potential impact on the race and gender profiles of the program. What strategies will be implemented to promote and maintain diversity in the program?

As this is a proposed degree for Fall 2024, no enrollment data presently exists. A fundamental pillar of the degree is to recognize that musical talent exists in many forms across many musical styles, not solely in "classical" or "jazz" idioms. Although requiring an audition and portfolio review, the content of these components will be based entirely upon the applicant's experiences and skillsets. This nontraditional audition process will undoubtedly advance access for historically underserved populations whose training and formative musical experiences, while substantive, may differ from those of applicants pursuing more classically focused music degrees. The fundamental enrichment of the School of Music, both by the exciting presence of these new curricular directions, and by new collaborations among a far broader diversity of students, is extraordinarily promising.

Required Signatures

Requestor/Initiator	8/29/2023 | 1:07 PM EDT Date
Signature of College Dean	Date
Signature of Campus EO Officer	Date
Signature of Provost	Date
Signature of Chair of the Board of Trustees	Date
Date Approved by the Board of Trustees	

UF | Board of Trustees
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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC4
September 7, 2023

SUBJECT: Annual Textbook and Instructional Materials Affordability Report

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BACKGROUND INFORMATION

Pursuant to Board of Governors Regulation 8.003, the University of Florida Board of Trustees shall report to the Chancellor of the State University System by September 30 of each year, the following:

a. The selection process for high enrollment courses;
b. Specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials;
c. Policies implemented regarding the posting of textbook and instructional materials for at least 95% of all courses and course sections 45 days before the first day of class;
d. The number of courses and course sections that were not able to meet the posting deadline for the previous academic year;
e. Any additional information determined by the Chancellor.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the Textbook and Instructional Materials Affordability Report for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

The University Board-approved report must be provided to the Chancellor of the State University System.

Supporting Documentation Included: Textbook and Instructional Materials Affordability Annual Report

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023.

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Morteza "Mori" Hosseini, Chair Ben Sasse, President and Corporate Secretary

Textbook and Instructional Materials Affordability Annual Report

Instructions

1. Complete each tab/worksheet as designed. The template reflects the interpretation of the reporting requirements by Board staff.
   Do not edit the content of the template. Expand the response space as needed.
2. Statutory due date is September 29, 2023.
3. If there are questions, contact Kirsten Harvey Director of Student Success & Workforce Alignment, at Kirsten.Harvey@flbog.edu
4. Include the university contact name and email for the staff who completed the report below:
5. Please note some cells are auto-calculated and do not require you to enter a figure. These cells are green.

University Contact Name and Email: Becky Holt, bholt@ufl.edu

Textbook and Instructional Materials Affordability Annual Report Fall 2022 and Spring 2023
University Submitting Report: University of Florida
Date Approved by the University Board of Trustees:
Signature of Chair, University Board of Trustees:
Signature of Vice President for Academic Affairs:
Signature of President:

Textbook and Instructional Materials Selection Process

Report the textbook and instructional materials selection process used for general education courses with high enrollment. Include the course prefix(es) and number(s), the course title(s), and the total number of courses (*n*=). In column "F," use the drop-down arrow in each cell to select the appropriate selection process. The methodology for determining high enrollment courses is as follows: *Order courses (course prefix/number) by headcount enrollment, excluding honors courses. The top 10% of courses are determined as high enrollment.*

General Education Courses with High Enrollment		*Total Number of Course Sections (n =)*	Selection Process	If "other," describe
Course Prefix & Number	Course Title			
IDS 2935	Special Topics	119	Individual Faculty	Fall 2022
STA 2023	Intro to Statistics 1	19	Individual Faculty	Fall 2022
MAC 2311	Analyt Geom and Calc 1	52	Individual Faculty	Fall 2022
ECO 2023	Prin Microeconomics	6	Individual Faculty	Fall 2022
CHM 1025	Intro to Chemistry	6	Individual Faculty	Fall 2022
MAN 3025	Prins of Management	6	Individual Faculty	Fall 2022
MAR 3023	Prin of Marketing	5	Individual Faculty	Fall 2022
CHM 2045	General Chemistry	38	Individual Faculty	Fall 2022
MAC 2313	Analyt Geom and Calc 3	34	Individual Faculty	Fall 2022
ECO 2013	Prin Macroeconomics	6	Individual Faculty	Fall 2022
ARH 2000	Art Apprec Div & Glob	4	Individual Faculty	Fall 2022
IDS 1161	What Is the Good Life	29	Individual Faculty	Fall 2022
BSC 2011	Integra Princ Biol 2	3	Individual Faculty	Fall 2022
BSC 2010	Integra Princ Biol 1	13	Individual Faculty	Fall 2022
MAC 2312	Analyt Geom and Calc 2	33	Individual Faculty	Fall 2022
PSY 2012	General Psychology	12	Individual Faculty	Fall 2022
BSC 2010L	Integ Prin Biol 1 Lab	46	Individual Faculty	Fall 2022
BSC 2011L	Integ Prin Biol 2 Lab	42	Individual Faculty	Fall 2022
CHM 2046	Gen Chem & Qual Analysis	25	Individual Faculty	Fall 2022
ENC 3246	Prof Comm Engineers	28	Individual Faculty	Fall 2022
APK 2100C	Appl Human Anat W/Lab	32	Individual Faculty	Fall 2022
WIS 2040	Wildlife Issues	5	Individual Faculty	Fall 2022
SYG 2000	Princpls of Sociology	15	Individual Faculty	Fall 2022
PHY 2053	Physics 1	25	Individual Faculty	Fall 2022
MUL 2010	Experiencing Music	4	Individual Faculty	Fall 2022
PHY 2053L	Lab for Phy 2053	37	Individual Faculty	Fall 2022
CLP 3144	Abnormal Psychology	6	Individual Faculty	Fall 2022
AST 1002	Discover the Universe	5	Individual Faculty	Fall 2022
FOS 2001	Mans Food	4	Individual Faculty	Fall 2022
MAC 2233	Survey of Calculus 1	4	Individual Faculty	Fall 2022
MAC 1147	Precalc Alg and Trig	18	Individual Faculty	Fall 2022
MCB 3020	Bas Biol Microorgan	3	Individual Faculty	Fall 2022
PHY 2049	Physics With Calc 2	22	Individual Faculty	Fall 2022
ENC 1102	Argument and Persuasion	25	Individual Faculty	Fall 2022
DEP 3053	Development Psychol	5	Individual Faculty	Fall 2022
PHY 2049L	Lab for Phy 2049	31	Individual Faculty	Fall 2022

PHY 2048	Physics With Calc 1	20	Individual Faculty	Fall 2022
IDS 2935	Special Topics	148	Individual Faculty	Spring 2023
STA 2023	Intro to Statistics 1	21	Individual Faculty	Spring 2023
MAR 3023	Prin of Marketing	7	Individual Faculty	Spring 2023
MAN 3025	Prins of Management	5	Individual Faculty	Spring 2023
ECO 2013	Prin Macroeconomics	6	Individual Faculty	Spring 2023
ARH 2000	Art Apprec Div & Glob	4	Individual Faculty	Spring 2023
CHM 2045	General Chemistry	26	Individual Faculty	Spring 2023
CHM 2045L	General Chemistry Lab	11	Individual Faculty	Spring 2023
BSC 2011L	Integ Prin Biol 2 Lab	48	Individual Faculty	Spring 2023
BSC 2010	Integra Princ Biol 1	3	Individual Faculty	Spring 2023
BSC 2011	Integra Princ Biol 2	10	Individual Faculty	Spring 2023
MAC 2312	Analyt Geom and Calc 2	30	Individual Faculty	Spring 2023
CHM 2046	Gen Chem & Qual Analysis	32	Individual Faculty	Spring 2023
CHM 2046L	Gen Chem & Qual Analysis Lab	12	Individual Faculty	Spring 2023
BSC 2010L	Integ Prin Biol 1 Lab	42	Individual Faculty	Spring 2023
ECO 2023	Prin Microeconomics	6	Individual Faculty	Spring 2023
PHY 2048	Physics With Calc 1	30	Individual Faculty	Spring 2023
ENC 3246	Prof Comm Engineers	31	Individual Faculty	Spring 2023
MAC 2313	Analyt Geom and Calc 3	24	Individual Faculty	Spring 2023
WIS 2040	Wildlife Issues	3	Individual Faculty	Spring 2023
PHY 2054L	Lab for Phy 2054	37	Individual Faculty	Spring 2023
PHY 2054L	Physics 2	23	Individual Faculty	Spring 2023
COT 3100	Appli Discrete Struc	13	Individual Faculty	Spring 2023
IDS 1161	What Is the Good Life	17	Individual Faculty	Spring 2023
APK 2105C	Appl Human Phys W/Lab	30	Individual Faculty	Spring 2023
MUL 2010	Experiencing Music	3	Individual Faculty	Spring 2023
MCB 3020	Bas Biol Microorgan	3	Individual Faculty	Spring 2023
SYG 2000	Princpls of Sociology	15	Individual Faculty	Spring 2023
MAP 2302	Elem Diff Equations	6	Individual Faculty	Spring 2023
MAC 2311	Analyt Geom and Calc 1	17	Individual Faculty	Spring 2023
PHY 2048L	Lab for Phy 2048	34	Individual Faculty	Spring 2023
ENC 3254	Prof Writ Discipline	29	Individual Faculty	Spring 2023
EGN 2020C	Eng Design & Society	10	Individual Faculty	Spring 2023
FOS 2001	Mans Food	3	Individual Faculty	Spring 2023
WIS 2552	Biodivers Cons Global	3	Individual Faculty	Spring 2023
FOS 3042	Intro Food Science	3	Individual Faculty	Spring 2023

Course Sections with No Cost for Textbooks/Instructional Materials

Report the total number of course section(s) offered including exceptions and the total number of course sections that did not require or recommend the purchase of a textbook(s)/ instructional materials and/or utilized open educational resources. These may include general education courses, upper level courses, and courses for directed independent study, internships, thesis/dissertation, etc.

Fall 2022	
Total Number of Course Sections Offered (Including Exceptions)	15,185
Total Number of Course Sections Offered with No Cost Materials	6,780
Percent of Course Sections with No Cost Materials (Auto-Calculated)	45%

Spring 2023	
Total Number of Course Sections Offered (Including Exceptions)	14,999
Total Number of Course Sections Offered with No Cost Materials	5,677
Percent of Course Sections with No Cost Materials (Auto-Calculated)	38%

Board Action Plan - Low Cost Course Materials

Report the total number of course section(s) offered including exceptions and the total number of course sections that required or recommended textbook(s)/instructional materials for $20 or less per credit hour (e.g., $60 or less for a three-credit-hour course), which meets the State University System of Florida Action Plan for the Pricing of Textbooks and other Instructional Materials.

Fall 2022	
Total Number of Course Sections Offered (Including Exceptions)	15,185
Total Number of Course Sections Offered with the Cost of Materials at $20 or less per credit hour	2654
Percent of Course Sections Offered with the Cost of Materials at $20 or less per credit hour (Auto-Calculated)	17%

Spring 2023	
Total Number of Course Sections Offered (Including Exceptions)	14,999
Total Number of Course Sections Offered with the Cost of Materials at $20 or less per credit hour	2545
Percent of Course Sections Offered with the Cost of Materials at $20 or less per credit hour (Auto-Calculated)	17%

Textbook & Instructional Materials Affordability Initiatives

Describe specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials.

The University of Florida's Affordable UF initiative utilizes a number of strategies and partnerships to advance textbook affordability. Below we highlight five strategies being led by the UF Center for Teaching Excellence and George A. Smathers Libraries, in collaboration with Business Services, the Center for Instructional Technology and Training, and numerous academic departments across the University.

Tracking OER and Library Resource Adoptions: Increases in savings to students reflected instructors' growing adoption of open educational resources and ebooks in the Libraries' collections, as well as improved reporting and assessment. A total of 1,195 course sections enrolling 22,923 students saved an estimated $2.6 million through the adoption of OER and library materials in Fall 2022-Spring 2023. This is in addition to savings resulting from courses requiring no materials, and includes substantial savings from a College of Pharmacy-supported textbook database. This estimate is based on an analysis from the SPARC policy organization (https://sparcopen.org/news/2018/estimating-oer-student-savings).

Xronos: Xronos is the University of Florida's instance of Ximera, an open-source interactive textbook and instructional materials platform that allows faculty to create content and interactive assignments and make them available to students at no cost. Prior to the creation of Xronos, undergraduate students of calculus and precalculus algebra at UF paid $62.50 to access their materials through WebAssign. Courses using Xronos also typically use textbooks from OpenStax, a repository for free, open textbooks. UF originally piloted Xronos in Spring 2017 for MAC2311 and it has now been adopted for MAC 1105, MAC 1140, MAC 2312, MAC2313, and MAC2234 eliminating WebAssign fees for those classes as well. In Fall 2022-Spring 2023 Xronos saved UF students $485,438.

Course Transformation Grants: This program provides seed funding to instructors seeking to create or adapt their courses to include freely available materials and library resources, without any additional cost to students. In Fall 2022, the Center for Teaching Excellence and the George A. Smathers Libraries, with support from the Office of the Provost, granted nearly $50,000 to eight projects across STEM, arts and humanities, and languages. Courses will be taught over the next two years and will include student and faculty assessment of their experience with using OER.

Libraries Responding to Student Needs: The George A. Smathers Libraries directs substantial resources toward supporting affordability initiatives to significantly reduce students' out-of-pocket course material costs. In 2022-2023, the Libraries undertook several strategies to respond to students' and instructors' needs: (1) Expanded course materials (print textbooks, DVDs, e-textbooks, and streaming videos) access through the Course Reserves on Demand program, which in 2022-2023 added 853 items requested by instructors; (2) Expanded the Taylor & Francis evidence-based acquisition collection, which provides access to over 150,000 ebooks spanning all disciplines that would otherwise have required purchasing.; (3) Invested in the PBS Video Collection, adding 1,673 streaming videos.

Affordable UF Badges: The UF Center for Teaching Excellence identifies and awards badges to courses with materials and fees costing less than $20 per credit hour. The badge appears in the UF Schedule of Courses as well as the Student Course Textbook Requirements portal, allowing students to easily search and register for courses with low- or no-cost materials. From Fall 2022-Spring 2023, 2,045 courses received the Affordable UF Badge. The Center for Teaching Excellence and the George A. Smathers Libraries offer consultations to aid instructors who seek to meet Affordable UF Badge criteria.

Has the *opt-in* provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has this had on student savings, if any.

Has the *opt-out* provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has this had on student savings, if any.

University Policies for the Posting of Textbooks and Instructional Materials & Compliance with the Posting Deadline

Describe policies implemented to ensure the posting of textbooks and instructional materials for at least 95% of all courses and course sections 45 days before the first day of class.

Each semester a university-wide memo is distributed notifying colleges, departments, and instructors that the UF Textbook Adoption system is open and available for the upcoming semester. The memo provides a link to the adoption system and the deadline for submitted adoptions. Additional reminders are sent on a regular basis to college deans and department chairs to encourage timely adoptions.

Once an instructor adopts materials, the information is hyperlinked to the university's course registration system as well as the schedule of courses so students can view required and recommended textbook and instructional materials and associated costs for each course and section.

Are the policies effective in meeting the reporting requirement? If not, what measures will be taken by the university to increase faculty and staff compliance for meeting the reporting requirement?

The policies are effective at meeting the reporting requirement on the deadline.

Published List of Required and Recommended Textbooks and Instructional Materials	
Please use the drop-down options to confirm the published list of required and recommended textbooks and instructional materials includes the following information.	
Information Required	**Affirm Information is Included**
International Standard Book Number (ISBN) or Other Identifying Information	Included
Title	Included
All Authors Listed	Included

Published Course Syllabus Requirements	
Please use the drop-down options to confirm the course syllabus of the general education core course options identified pursuant to section 1007.25, Florida Statutes include the following information.	
Information Required	**Affirm Information is Included**
Course Curriculum	Included
Goals, Objectives, and Student Expectations of the Course	Included
How Student Performance will be Measured	Included

Link to Published List of Required and Recommended Textbooks and Instructional Materials
Please provide a link to the webpage housing the information listed under "Published List of Required and Recommended Textbooks and Instructional Materials.". If each course section has its own website link, please provide one example link.
Please Provide Link Below
https://www.bsd.ufl.edu/textadoption/Manage/Start.aspx

Link to Published List of Course Syllabi for General Education Courses

Publishers	Included
Edition Number	Included
Copyright Date	Included
Published Date	Included
Searchable by Course Subject, Course Number, Course Title, Name of Instructor, Title of Material, and Author(s) of Material	Included
Material Information is Easily Downloadable by Current and Prospective Student	Included

Please provide links to the webpages housing the information under "Published Course Syllabus Requirements."	
Please Provide Links Below	
Communication	https://undergrad.aa.ufl.edu/general-education/gen-ed-program/state-gen-ed-core/
Humanities	https://undergrad.aa.ufl.edu/general-
Mathematics	https://undergrad.aa.ufl.edu/general-
Natural Sciences	https://undergrad.aa.ufl.edu/general-
Social Sciences	https://undergrad.aa.ufl.edu/general-

Exceptions

Per Board of Governors Regulation 8.003(1)(h), Textbook and Instructional Materials Affordability, any request for an exception to the compliance deadline shall be submitted in writing to the designated university official and shall provide a reasonable justification for an exception. A course or section added after the notification deadline is exempt from this notification requirement.

Fall 2022

Total # of Course Sections (Not Including Exceptions)	# of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column A + Column B) (Auto-Calculated)	% Of Total Course Sections That Were Identified As Exceptions (Auto-Calculated)	Reasons For Exceptions
14143	0	14143	0%	N/A

Spring 2023

Total # Of Course Sections (Not Including Exceptions)	# Of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column G + Column H) (Auto-Calculated)	% Of Total Course Sections That Were Identified As Exceptions (Auto-Calculated)	Reasons For Exceptions
13381	0	13381	0%	N/A

University Requirements for the Posting of Textbooks and Instructional Materials & Compliance with the Posting Deadline

Please use the tables below to report the total number of course sections offered at the 45-day posting deadline, the number of course sections that met the posting requirement, the number of course sections that changed materials after the posting deadline, and the number of course sections that did not meet the posting requirement.

Fall 2022

Total Course Sections at the 45-Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Meeting Requirement (Auto-Calculated)	# Of Course Sections That Changed Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Not Meeting Requirement (Auto-Calculated)
14,143	13,727	97%	238	416	2.94%

Spring 2023

Total Course Sections at the 45-Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Meeting Requirement (Auto-Calculated)	# Of Course Sections That Changed Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Not Meeting Requirement (Auto-Calculated)
13,381	13,069	97.67%	146	312	2.33%

****Note: Per Board Regulation 8.003 (1) (h), a course or course section added after the posting requirement is considered an exception and should be reported on the "Exceptions" tab. A request for any other exception to the compliance deadline shall be submitted in writing to the designated university official and shall provide a reasonable justification for an exception. A course or section added after the notification deadline is exempt from this notification requirement.**

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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC5
September 7, 2023

SUBJECT: Self-supporting and Market Tuition Rate College-Credit Programs Annual Report, 2021-2022 and 2022-23

BACKGROUND INFORMATION

Pursuant to Board of Governors Regulation 8.002(4), institutions must complete an annual report on all college-credit self-supporting and market tuition rate education programs. The report must be approved by the board of trustees prior to submission and must include the following information:

1. The CIP Code and complete name of each program under which each self-supporting and market tuition rate education program is operating. Additionally, all program majors as defined in Board of Governors Regulation 8.011 must be identified.
2. The approval dates for each program's tuition from the university board of trustees and Board of Governors.
3. The approved tuition and fees for each program, including costs per credit hour and any additional fees, such that the total cost to the student for each program may be calculated.
4. The revenues and expenditures for each degree and major within a college-credit self-supporting or market tuition rate education program.
5. Other documentation to demonstrate compliance with this regulation as required.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the attached Self-supporting and Market Tuition Rate College-Credit Programs Annual Report, 2021-22 and 2022-23 for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is required.

Supporting Documentation Included: Self-supporting and Market Tuition Rate College-Credit Programs Annual Report, 2021-22 and 2022-23

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023

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Morteza “Mori” Hosseini, Chair Ben Sasse, President and Corporate Secretary

Column Definitions	
Instructions: Institutions are required to provide the information below for all non-E&G college-credit programs, including sponsored-credit, certificate, and degree programs (at all levels) and any majors or tracks that exist under an approved degree program. Do not combine cells or alter the template in any way when reporting the data.	
CIP Code	CIP code for approved degree program as listed in the State University System approved degree inventory. Please report the complete 6-digit CIP code (XX.XXXX).
Program Name (in inventory)	All non-E&G college-credit programs, including sponsored-credit, certificate, and undergraduate and graduate degree programs, should be reported. Use the program name as listed in the State University System approved degree inventory for degree programs.
Program Level	Indicate whether the program is offered at the undergraduate- or graduate-level.
Program Type	Select the program type for the program - select certificate, bachelor's, master's, specialist, or doctoral.
Local Program Name (if different from inventory name)	If the local program name differs from what is listed in the approved degree inventory, please provide the name used within the university.
Major or Track Name (if different)	Please list each major/track in the degree program as defined in Reg 8.002 in a separate row.
Program Length	Total minimum number of credit hours required to complete the program.
Tuition Type	Select market rate, self-supporting, or sponsored credit (explain or provide more detail if needed in comments).
Mode of Delivery	Delivery method for program - select face-to-face, hybrid, or online
UBOT Tuition Approval Date	Date program's tuition rate was approved by the University Board of Trustees.
BOG Tuition Approval Date	Date program's tuition rate was approved by the Board of Governors, if applicable
Program Start Date	List the term and year the program began enrolling students - select fall, spring, or summer and input the year using four digits
Tuition Rate Per Credit Hour - Resident	Tuition per credit hour including fees for resident/in-state students.
Tuition Rate Per Credit Hour - Non-Resident	Tuition per credit hour including fees for non-resident/out-of-state students.
Additional Program Fees - Resident	Any required fees specific to the program not included in the tuition per credit hour rate for resident/in-state students, if applicable.
Additional Program Fees - Non-Resident	Any required fees specific to the program not included in the tuition per credit hour rate for non-resident/out-of-state students, if applicable.
Resident Enrollment	Unique headcount of resident students for the academic year most closely aligned with the fiscal year being reported.
Non-Resident Enrollment	Unique headcount of non-resident students for the academic year most closely aligned with the fiscal year being reported.
Degree/Program Completions	Degree or program completions for the academic year most closely aligned with the fiscal year to the one being reported.
Revenues	Total revenues from tuition and fees collected by each program for the fiscal year being reported. If there is any additional revenue source, such as a corporate sponsorship, please identify each source in the comments.
Expenditures	Total expenditures associated with each program for the fiscal year being reported.
Comparable E&G Program	Does the program have a comparable E&G approved program with the same CIP code (yes/no)?
Comparable E&G Program - Name	Identify the program name of the comparable E&G program, if one exists.
Comparable E&G Program - Level	Identify the Degree Level for the comparable E&G program, if one exists
Comparable E&G Program - CIP	Identify the CIP Code for the comparable E&G program, if one exists
Additional Comments	Any additional information or clarification the institution wishes to provide on a specific program.

Due date in the DRS:	**10/1/2023**

Include the university contact name and email for the staff that completed and approved this file.

Data provided by:			
Name:		E-Mail:	
Data approved by:			
Name:		E-Mail:	

Date Approved by the Board of Trustees*:	

*Submit documentation of Board of Trustees approval in the DRS along with this completed file.

Fiscal Year 2021-2022 Self-Supporting and Market Tuition Rate Report

CIP Code (XX.XXXX)	Program Name (in inventory)	Program Level	Program Type	Local Program Name (if different from inventory name)	Major or Track Name (if different)	Program Length	UF Code	Flex	Resident Enrollment	Non-Resident Enrollment	Degree/Program Completions	Revenues	Expenditures	Comparable E&G Program	Comparable E&G Program	Degree/Program Level	CIP Code (XX.XXXX)	Additional Comments (if any)
														Comparable E&G Program				
01.1101	Plant Sciences, General	Undergraduate	Certificate	Environmental Horticulture Management		15	EHM	52ENVHORT	24	4	2	19,886.23	6,335.03	Yes	Environmental Horticulture Management	Certificate	01.1101	
01.1101	Plant Sciences, General	Undergraduate	Certificate	Horticultural Therapy		12	CHT	52SFUGCHT	31	31	15	82,832.40	25,179.32	Yes	Horticultural Therapy	Certificate	01.1101	
01.1102	Agronomy and Crop Science	Graduate	Certificate	Sustainable Agroecosystems		12	AEG	52AGECOSYS	2	8	4	30,794.96	22,632.74	Yes	Sustainable Agroecosystems	Certificate	01.1102	
01.1102	Agronomy and Crop Science	Graduate	Master's	Agronomy	Concentration in Agroecology	30	AME	52AGROECOL	10	6	2	55,159.46	18,584.80	Yes	Agronomy	Masters	01.1102	
01.1102	Agronomy and Crop Science	Graduate	Certificate	Weed Science		9	CWS	52SFGCWSC	4	3	0	82,832.40	6,956.33	Yes	Weed Science	Certificate	01.1102	
01.1201	Soil Science and Agronomy, General	Graduate	Master's	Soil and Water Science	Concentration in Agroecology	30	AME	52AGROECOL	2	6	0	27,579.73	9,292.40	Yes	Soil and Water Science	Masters	01.1201	
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Biodegradation and Bioremediation		12	GBB	52CALSDE	1	2	0	11,438.54	15,168.39	Yes	Biodegradation and Bioremediation	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Soil Ecosystem Services		9	SES	52CALSDE	1	2	0	11,438.54	15,168.39	Yes	Soil Ecosystem Services	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Sustainable Land Resource and Nutrient Management		12	SLR	52CALSDE	1	1	0	7,625.69	10,112.26	Yes	Sustainable Land Resource and Nutrient Management	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Master's	Soil and Water Science	Specialization in Environmental Science	30	SWD	52CALSDE	28	25	54	202,080.91	267,974.89	Yes	Soil and Water Science	Masters	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Wetland and Water Resource Management		12	WWR	52CALSDE	9	4	8	49,567.02	65,729.69	Yes	Wetland and Water Resource Management	Certificate	01.1201	See Notes #2
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Forensic Toxicology		15	TXC	52FORSCIDE	2	27	16	161,206.53	143,970.79	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Forensic Toxicology	30	TXM	52FORSCIDE	9	60	18	383,560.37	342,551.19	Yes	Veterinary Medical Science	Masters	01.8101	See Notes #2
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Care and Conservation of Aquatic Animals		12	CCA	52GC-CCAA	10	14	1	53,337.55	60,581.50	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Shelter Medicine	30	SHM	52MSSHELTR	23	106	20	637,446.41	387,039.19	Yes	Veterinary Medical Science	Masters	01.8101	
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Veterinary Forensic Sciences	32	FSV	52MSVFS	23	112	38	780,698.85	630,901.40	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Shelter Medicine		12	VSH	52SHELTER	5	47	18	219,899.13	220,842.01	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Veterinary Forensic Sciences		15	VFS	52VETFS	6	36	10	191,234.20	151,647.86	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Wildlife Forensic Sciences and Conservation		15	WFS	52WFSC	6	34	11	110,981.02	142,200.67	No				
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Certificate	Aquaculture and Fish Health		12	AFH	52FISH	18	24	19	112,694.84	178,170.30	Yes	Aquaculture and Fish Health	Certificate	03.0301	See Notes #2
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Master's	Fisheries and Aquatic Sciences		32	ASF	52FISH	19	40	14	158,309.41	250,286.85	Yes	Fisheries and Aquatic Sciences	Masters	03.0301	
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Certificate	Quantitative Fisheries Science		11	COF	52FISH	0	5	2	13,416.05	21,210.75	Yes	Quantitative Fisheries Science	Certificate	03.0301	
03.0501	Forestry, General	Graduate	Certificate	Ecological Restoration		15	CER	52FRC	30	24	11	154,815.84	260,945.28	Yes	Ecological Restoration	Certificate	03.0301	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Ecological Restoration	30	FCD	52FRC	35	24	19	169,150.64	285,106.88	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Geomatics	30	MFR	52GEOMATIC	12	9	7	48,089.79	249,987.90	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Certificate	Natural Resource Policy and Administration		12	NRC	52POLICY	11	3	4	42,804.13	50,090.60	Yes	Natural Resource Policy and Administration	Certificate	03.0301	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Natural Resource Policy and Administration	30	NRP	52POLICY	13	7	8	61,148.75	71,558.00	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Certificate	Forest Health and Resilience		12	FHR	52SFGCFHR	3	6	1	14,560.32	4,090.01	Yes	Forest Health and Resilience	Certificate	03.0501	
03.0601	Wildlife, Fish and Wildlands Science and Management	Graduate	Master's	Wildlife Ecology and Conservation	Concentration in Wildlife Forensic Sciences and Conservation	33	WFM	52MSWEC	21	77	19	586,913.01	382,946.88	Yes	Wildlife Ecology	Masters	03.0601	
04.0201	Architecture	Graduate	Certificate	Themed Environments Integration		21	TEI	52GCCLAREI	2	2	0	58,045.76	58,045.76	No				
04.0201	Architecture	Graduate	Master's	Architectural Studies	Orlando/Citylab	30	MAO	52MAO	3	3	1	87,068.64	87,068.64	Yes	Architectural Studies	Masters	04.0201	Taught in Orlando, FL
04.0201	Architecture	Graduate	Master's	Architecture	Orlando/Citylab	52	MAO	52MAO	54	27	22	1,175,426.64	1,175,426.64	Yes	Architecture	Masters	04.0201	Taught in Orlando, FL
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Themed Environments Integration Orlando/Citylab	36	TEM	52MSCLAREI	10	18	8	406,320.32	406,320.32	No				
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Sustainable Design	36	SDC	52SINGA	0	1	1	17,278.73	25,897.61	Yes	Architectural Studies	Masters	04.0201	These students come to campus from China exclusively for this program. See Notes #2
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Sustainable Design	36	SDM	52SINGA	5	3	5	138,229.84	103,590.44	Yes	Architectural Studies	Masters	04.0201	See Notes #2
04.0301	City/Urban, Community, and Regional Planning	Graduate	Master's	Urban and Regional Planning		52	GUR	52DCPGIS	21	74	11	1,152,709.31	948,204.04	Yes	Urban and Regional Planning	Masters	04.0301	
04.0301	City/Urban, Community, and Regional Planning	Graduate	Certificate	Geographic Information Systems (GIS) for Urban/Regional Planners		12	GU2	52GISCERT	11	6	4	57,614.92	41,740.73	No				See Notes #2
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Digital Strategy	36	DTS	52JDTS	147	133	53	1,663,425.64	1,654,876.07	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Audience Analytics	37	ANL	52JMANALYT	12	6	2	185,002.00	106,709.55	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Global Strategic Communications	36	COD	52JMCOMM	39	42	13	358,344.00	56,964.87	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Global Strategic Communication		12	SCD	52JMCOMM	8	6	13	61,936.00	9,845.78	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Social Media Professional		12	SMC	52JMCOMM	11	14	28	110,600.00	17,581.75	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Social Media	36	SMM	52JMCOMM	53	42	17	420,280.00	66,810.65	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Public Interest Communication	36	PIC	52JMPIC	55	45	10	345,614.20	142,583.44	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Political Communication	36	POL	52JMPLC	14	13	3	218,493.60	41,547.25	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Public Relations Communication Management	36	PRM	52JMPUBREL	108	81	32	1,326,540.80	1,267,296.77	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Web Design and Online Communication		14	WDC	52JMWEB	5	10	18	96,838.80	869,532.26	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Web Design and Online Communication	37	WDO	52JMWEB	62	64	33	813,445.92	777,028.83	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Audience Analytics		13	AAC	52SFGCAA	1	1	3	21,492.47	-	No				residuals from other programs supported the first year delivery
11.0101	Computer and Information Sciences, General	Graduate	Master's	Computer Science		30	FED	52EDGE	0	13	2	68,670.74	60,747.44	Yes	Computer Science	Masters	11.0101	See Notes #2
13.0401	Educational Leadership and Administration, General	Graduate	Master's	Educational Leadership		36	MLD	52EDLEADER	79	33	19	950,985.78	469,454.07	Yes	Educational Leadership	Masters	13.0401	
13.1001	Special Education and Teaching, General	Graduate	Certificate	Dyslexia Assessment & Intervention		15	DAI	52GCDYSINT	42	71	45	375,060.97	293,457.96	Yes	Dyslexia Assessment & Intervention	Certificate	13.1001	
13.1301	Agricultural Teacher Education	Graduate	Master's	Agricultural Education and Communication	Specialization in Agricultural Leadership	32	AEC	52AGEDDE	34	14	9	172,186.57	106,137.13	Yes	Agricultural Education and Communication	Masters	13.1301	
13.1301	Agricultural Teacher Education	Graduate	Certificate	Agriscience Secondary Teaching		18	AST	52SFGCAST	2	0	1	-	-	Yes	Agriscience Secondary Teaching	Certificate	13.1301	
13.1302	Art Teacher Education	Graduate	Master's	Art Education		36	ARD	52ARTEDMA	31	107	43	967,414.81	829,100.42	Yes	Art Education	Masters	13.1302	
13.1312	Music Teacher Education	Graduate	Master's	Music Education		33	MME	52MME	25	146	46	1,125,674.24	949,494.15	Yes	Music Education	Masters	13.1312	
14.0201	Aerospace, Aeronautical, and Astronautical/Space Engineering, General	Graduate	Master's	Aerospace Engineering		30	FED	52EDGE	2	33	4	184,882.75	163,550.80	Yes	Aerospace Engineering	Masters	14.0201	
14.0301	Agricultural and Biological Engineering	Graduate	Master's		Concentration in Agroecology	30	AME	52AGROECOL	1	0	1	3,447.47	1,161.55	Yes	Agricultural and Biological Engineering	Masters	14.0301	
14.0701	Chemical Engineering	Graduate	Master's			30	FED	52EDGE	0	1	0	5,282.36	4,672.88	Yes	Chemical Engineering	Masters	14.0701	See Notes #2
14.0801	Civil Engineering, General	Graduate	Master's	ME Civil Engineering		30	FED	52EDGE	1	5	2	31,694.19	28,037.28	Yes	Civil Engineering	Masters	14.0801	See Notes #2
14.0801	Civil Engineering, General	Graduate	Master's	MS Civil Engineering		30	FED	52EDGE	1	1	0	10,564.73	9,345.76	Yes	Civil Engineering	Masters	14.0801	See Notes #2
14.0801	Civil Engineering, General	Graduate	Certificate	Transportation Operations and Planning		9	FED	52EDGE	0	1	1	5,282.36	4,672.88	Yes	Transportation Operations and Planning	Certificate	14.0801	See Notes #2
14.0901	Computer Engineering, General	Graduate	Master's	Computer Engineering		30	FED	52EDGE	0	0	0		-	Yes	Computer Engineering	Masters	14.0901	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Certificate	Hardware and System Security		9	FED	52EDGE	0	2	0	10,564.73	9,345.76	Yes	Hardware and System Security	Certificate	14.1001	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Master's	ME Electrical and Computer Engineering		30	FED	52EDGE	0	2	1	10,564.73	9,345.76	Yes	Electrical and Computer Engineering	Masters	14.1001	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Master's	MS Electrical and Computer Engineering		30	FED	52EDGE	2	49	5	269,400.58	238,316.88	Yes	Electrical and Computer Engineering	Masters	14.1001	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Master's	ME Environmental Engineering Sciences		30	FED	52EDGE	3	14	3	89,800.19	79,438.96	Yes	Environmental Engineering Sciences	Masters	14.1401	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Master's	MS Environmental Engineering Sciences		30	FED	52EDGE	0	16	6	84,517.83	74,766.08	Yes	Environmental Engineering Sciences	Masters	14.1401	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Certificate	Wetland Sciences		16	FED	52EDGE	0	0	0	-	-	Yes	Wetland Sciences	Certificate	14.1401	See Notes #2
14.1801	Materials Engineering	Graduate	Master's	Materials Science and Engineering		30	FED	52EDGE	0	47	11	248,271.12	219,625.36	Yes	Materials Science and Engineering	Masters	14.1801	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Advanced Manufacturing		9	FED	52EDGE	0	0	1		-	Yes	Advanced Manufacturing	Certificate	14.1901	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Control Systems		9	FED	52EDGE	0	4	1	21,129.46	18,691.52	Yes	Control Systems	Certificate	14.1901	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Energy Management		9	FED	52EDGE	0	0	0	-	-	Yes	Energy Management	Certificate	14.1901	
14.1901	Mechanical Engineering	Graduate	Master's	ME Mechanical Engineering		30	FED	52EDGE	0	1	0	5,282.36	4,672.88	Yes	Mechanical Engineering	Masters	14.1901	
14.1901	Mechanical Engineering	Graduate	Master's	MS Mechanical Engineering		30	FED	52EDGE	1	54	13	290,530.04	257,008.40	Yes	Mechanical Engineering	Masters	14.1901	See Notes #2
14.2701	Industrial & Systems Engineering	Graduate	Certificate	Engineering Leadership		9	FED	52EDGE	0	2	5	10,564.73	9,345.76	Yes	Engineering Leadership	Certificate	14.2701	
14.2701	Systems Engineering	Graduate	Certificate	Engineering Project Management		12	FED	52EDGE	0	2	1	10,564.73	9,345.76	Yes	Engineering Project Management	Certificate	14.2701	See Notes #2
14.2701	Systems Engineering	Graduate	Master's	Industrial and Systems Engineering		30	FED	52EDGE	0	15	1	79,235.47	70,093.20	Yes	Industrial and Systems Engineering	Masters	14.2701	See Notes #2
14.2701	Industrial & Systems Engineering	Graduate	Certificate	Systems Engineering		9	FED	52EDGE	0	1	0	5,282.36	4,672.88	Yes	Systems Engineering	Certificate	14.2701	
14.2701	Systems Engineering	Graduate	Master's	ME Industrial and Systems Engineering	Concentration in Engineering Management	32	ISN	52OEMPROG	6	2	5	95,491.84	47,662.72	Yes	Industrial and Systems Engineering	Masters	14.2701	Taught in Orlando, FL
14.2701	Systems Engineering	Graduate	Master's	MS Industrial and Systems Engineering	Concentration in Engineering Management	32	ISN	52OEMPROG	78	24	46	1,217,520.96	607,699.68	Yes	Industrial and Systems Engineering	Masters	14.2701	Taught in Orlando, FL
15.1001	Construction Engineering Technology/Technician	Graduate	Certificate	Construction ProjecM Management		12	ICM	52ICM	2	1	2	16,980.24	16,076.07	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Master's	MCM Construction Management		33	ICM	52ICM	3	22	4	141,502.00	133,967.25	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Certificate	Sustainable Construction		12	ICM	52ICM	1	0	3	5,660.08	5,358.69	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Master's	MCM Construction Management		36	MCM	52MSCONMGT	3	2	5	31,641.74	79,171.08	Yes	Construction Management	Masters	15.1001	Taught in Orlando,FL
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General	Graduate	Doctoral	Classical Studies	Classical Studies (Includes 2 tracks)	60	CLA	52CLASSICS	3	19	2	82,872.37	100,030.70	Yes	Classical Studies	Doctoral	16.1200	See Notes #2
16.1203	Latin Language and Literature	Graduate	Master's	Latin		30	CLA	52CLASSICS	1	5	2	22,601.56	27,281.10	Yes	Latin	Masters	16.1203	See Notes #2
19.0707	Family and Community Services	Graduate	Master's	Family, Youth and Community Science	Family, Youth and Community Science (Includes 3 tracks)	30	FYD	52NPCERT	50	23	16	268,924.70	143,935.70	Yes	Family, Youth and Community Science	Masters	19.0707	See Notes #2
19.0707	Family and Community Services	Graduate	Certificate	Nonprofit Leadership		18	NPM	52NPCERT	12	2	3	51,574.60	27,604.11	Yes	Nonprofit Leadership	Certificate	19.0707	
26.0403	Anatomy	Graduate	Master's	Anatomical Sciences Education		32	ASE	52SFMSASE	18	43	2	393,894.75	17,326.80	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Master's	Microbiology and Cell Science	Concentration in Medical Microbiology and Biochemistry	30	MMB	52MSMBCS	259	754	187	5,832,493.68	5,789,406.05	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Environmental Microbiology		13	CEM	52SFGCENV	4	10	1	42,243.96	39,660.15	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Microbiome and Health		12	MBH	52SFGCMBH	1	1	1	16,050.00	-	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Medical Microbiology		11	CMG	52SFGCMDMB	0	1	0	24,312.16	590.85	Yes	Medical Microbiology	Certificate	26.0503	
26.0702	Entomology	Graduate	Master's	Entomology and Nematology	Concentration in Agroecology	30	AME	52AGROECOL	0	1	0	3,447.47	1,161.55	Yes	Entomology and Nematology	Masters	26.0702	
26.0702	Entomology	Graduate	Certificate	Medical Entomology		15	PST	52ENTOM	5	7	4	71,208.24	68,013.24	Yes	Medical Entomology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Graduate	Certificate	Landscape Pest Management		15	PST	52ENTOM	3	2	1	29,670.10	28,338.85	Yes	Landscape Pest Management	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Pest Control Technology		24	EUN	52ENTUG	7	3	5	2,484.68	25,818.00	Yes	Pest Control Technology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Medical Entomology		15	EUN	52ENTUG	0	2	0	38,727.02	5,163.60	Yes	Medical Entomology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Urban Pest Management		15	EUN	52ENTUG	1	2	0	745.40	7,745.40	Yes	Urban Pest Management	Certificate	26.0702	See Notes #2
26.0702	Entomology	Graduate	Master's	Entomology and Nematology	Entomology and Nematology (Includes 4 tracks)	30	PS1	52MSENTOM	21	69	8	100,878.35	96,352.05	Yes	Entomology and Nematology	Masters	26.0702	
26.0908	Exercise Physiology and Kinesiology	Graduate	Master's	Applied Physiology and Kinesiology	Concentration in Human Performance	30	MHP	52MSAPK-HP	78	192	67	1,791,649.68	1,595,709.53	Yes	Applied Physiology and Kinesiology	Masters	26.0908	
26.1102	Biostatistics	Graduate	Master's			36	BTS	52BIOSTATS	18	30	11	357,750.00	277,680.32	Yes	Biostatistics	Masters	26.1102	
26.1309	Epidemiology	Graduate	Certificate	Psychiatric Epidemiology		12	CPE	52EPIDEM	0	3	0	8,370.00	22,118.73	No				
26.1309	Epidemiology	Graduate	Certificate	One Health		12	MG2	52MHSEGH	3	4	0	37,653.14	37,282.21	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Aging and Geriatric Practice		15	CGP	52CERTAGE	3	2	1	234,293.28	85,375.99	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Anatomical Sciences Education		12	SED	52GCANSCED	1	7	0	34,567.50	15,849.78	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Biomedical Neuroscience		13	BMN	52GCBN	4	22	1	57,364.14	84,023.11	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Human Anatomy		13	MHA	52MDHUMANT	8	16	6	132,900.00	244,946.08	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Anatomy and Physiology		15	MAH	52MEDANT	5	29	9	96,521.78	200,366.15	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Physiology		9	CMP	52MEDPHYS	30	45	36	343,022.25	764,244.75	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Physiology - Cardiovascular/Renal Physiology		12	CRP	52MEDPHYS	3	10	0	59,457.19	132,469.09	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Addiction and Recovery		18	AAR	52MEDPSY	5	7	2	66,530.08	44,448.94	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Aging and Geriatric Practice	36	MGP	52MSAGING	16	14	4	171,828.72	50,996.93	Yes	Medical Sciences	Masters	26.9999	
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Forensic Medicine	37	MFM	52MSMSFM	58	154	38	1,766,327.14	1,081,765.04	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Biomedical Neuroscience	30	BNS	52SFMSBNS	26	71	2	442,058.06	326,985.05	Yes	Medical Sciences	Masters	26.9999	
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Medical Physiology and Pharmacology	30	MPP	52SFMSPHY	75	190	35	1,165,476.46	1,174,384.86	Yes	Medical Sciences	Masters	26.9999	
30.9999	Multi-/Interdisciplinary Studies, Other	Graduate	Certificate	Arts in Medicine		12	ARM	52ARMCERT	0	12	4	44,829.96	74,899.96	No				See Notes #2
31.0301	Parks, Recreation, and Leisure Facilities Management, General	Graduate	Master's	Tourism and Hospitality Management	Specialization in Hospitality Business Management	30	HBM	52MSTRSMHB	17	27	20	294,223.40	232,300.27	Yes	Tourism and Recreation Management	Masters	31.0301	
31.0504	Sport and Fitness Administration/Management	Graduate	Certificate	Sport Event Management		9	SEM	52GCSPTEVT	6	7	13	34,919.72	26,361.71	Yes	Sport Event Management	Certificate	31.0504	
31.0504	Sport and Fitness Administration/Management	Graduate	Master's	Sport Management		36	OSM	52MSSPORT	108	247	98	2,756,596.84	2,689,469.16	Yes	Sport Management	Masters	31.0504	
40.0601	Geology/Earth Science, General	Undergraduate	Certificate	Geological Sciences		16	CIG	52PBCG	11	2	1	35,935.00	32,706.49	Yes	Geological Sciences	Certificate	40.0601	See Notes #2
43.0203	Fire Science/Fire-fighting	Graduate	Certificate	Emergency Services/Disaster Management		11	ESD	52MSFES	5	3	12	51,530.24	20,245.68	No				See Notes #2
43.0203	Fire Science/Fire-fighting	Graduate	Master's	Fire and Emergency Services		33	ESD	52MSFES	41	19	4	386,476.80	151,842.60	No				See Notes #2
45.0701	Geography	Graduate	Certificate	Geospatial Analysis		9	CGA	52FRC	11	6	10	48,738.32	82,149.44	Yes	Geospatial Analysis	Certificate	45.0701	
45.0701	Geography	Undergraduate	Certificate	Geomatics		15	GEO	52GEOMATIC	48	23	18	162,589.29	192,925.44	Yes	Geomatics	Certificate	45.0701	
50.0799	Fine Arts and Art Studies, Other	Graduate	Master's	Arts in Medicine		35	AMM	52ARMMA	28	29	14	474,400.87	398,903.16	No				
50.0799	Fine Arts and Art Studies, Other	Graduate	Certificate	Arts in Public Health		15	APH	52ARTPUB	2	7	2	33,060.00	16,544.40	No				See Notes #2
51.0202	Audiology/Audiologist	Graduate	Doctoral	Audiology		110	ADL	52DISTAUDD	0	0	0		-	Yes	Audiology	Doctoral	51.0202	Program Closed Spring 2020
51.0701	Health/Health Care Administration/Management	Graduate	Certificate	Geriatric Care Management		15	GCM	52GCMDE	0	1	1	16,500.00	17,325.12	No				
51.1201	Medicine	Graduate	Certificate	Medical Pharmacology and Therapeutics		9	MPC	52SFGCMDPH	7	11	3	58,449.36	50,820.37	No				
51.2001	Pharmacy	Graduate	Doctoral			63	WPN	52OSPHARMD	0	124	30	3,610,405.35	5,023,932.33	Yes	Pharmacy	Doctoral	51.2001	Jacksonville, FL & Orlando, FL *See Notes #2
51.2001	Pharmacy	Graduate	Doctoral			63	WPD	52WPPD	0	0	0	1,700.00	2,269.84	Yes	Pharmacy	Doctoral	51.2001	Program Closed Fall 2019
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Clinical Toxicology		15	TXC	52FORSCIDE	5	26	5	172,324.22	153,899.81	No				

51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic Death Investigation		15	TXC	52FORSCIDE	10	49	25	327,971.91	292,906.09	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic DNA and Serology		15	TXC	52FORSCIDE	4	26	8	166,765.38	148,935.30	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic Drug Chemistry		15	TXC	52FORSCIDE	4	22	6	144,529.99	129,077.26	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutical Chemistry		15	TXC	52FORSCIDE	5	27	7	177,883.07	158,864.32	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Pharmaceutical Sciences (Includes 6 tracks)	32	TXM	52FORSCIDE	173	692	170	4,808,401.72	4,294,301.15	Yes	Pharmaceutical Sciences	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Comprehensive Medication Management		12	CMM	52GCCMM	1	0	0	-	24,827.05	No				See Notes #2
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Concentration in Personalized Medicine	36	CPD	52MSCP	6	43	4	162,252.72	167,325.73	Yes	Pharmacy	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Precision Medicine		9	CPD	52MSCP	9	14	9	76,159.44	78,540.65	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Concentration in Individualized Medicine (Formerly Medication Therapy Management	30	MTM	52MTM	3	20	6	142,364.50	161,021.65	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Pharmaceutical Sciences (Includes 5 tracks)	32	PHR	52PHREG	32	128	57	1,113,737.60	1,127,954.26	Yes	Pharmaceutical Sciences	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Applied Pharmacoeconomics		15	PR1	52PHREG	3	9	10	83,530.32	84,596.57	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Health Equity		15	PR1	52PHREG	1	1	0	13,921.72	14,099.43	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Managed Care Pharmacy Systems		15	PR1	52PHREG	1	4	4	34,804.30	35,248.57	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Medication Safety & Quality Systems		15	PR1	52PHREG	1	0	0	6,960.86	7,049.71	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Patient Safety in Medication Use		15	PR1	52PHREG	0	1	2	6,960.86	7,049.71	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutial Value Assessment and Communication		15	PR1	52PHREG	0	2	0	13,921.72	14,099.43	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutical Regulation		15	PR1	52PHREG	1	5	0	41,765.16	42,298.28	No				
51.2201	Public Health, General	Graduate	Master's	Public Health	Public Health (Includes 2 tracks)	48	MPD	52MPH	61	112	30	1,548,348.31	922,709.76	Yes	Public Health	Masters	51.2201	
51.2202	Environmental Health	Graduate	Master's	Environmental & Global Health	Concentration One Health	40	MG2	52MHSEGH	9	10	4	102,201.38	101,194.57	Yes	Environmental & Global Health	Masters	51.2202	
51.2202	Environmental Health	Graduate	Master's	Environmental & Global Health	Concentration One Health	40	MGH	52MHSEGH	0	1	1	5,379.02	5,326.03	Yes	Environmental & Global Health	Masters	51.2202	
51.2208	Community Health and Preventive Medicine	Graduate	Master's	Health Education and Behavior		30	MHE	52MSHEB	42	51	30	670,040.94	489,891.44	Yes	Health Education and Behavior	Masters	51.2208	
51.2208	Community Health and Preventive Medicine	Graduate	Certificate	Public Health		15	PHC	52PHPROG	14	28	16	156,141.38	196,434.14	Yes	Public Health	Certificate	51.2208	See Notes #2
52.0201	Business Administration and Management, General	Graduate	Master's	Entrepreneurship		36	MEI	52CEI	0	0	0	600.00	5,964.44	Yes	Entrepreneurship	Masters	52.0201	Program sunset. Last admitted enrollments Summer 2018.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Online One Year MBA	32	M1M	52D5115	133	141	167	7,602,943.59	6,944,571.10	Yes	Business Administration	Masters	52.0201	
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Online Two-Year MBA	48	M2M	52D5115	187	246	144	12,014,870.71	10,974,449.95	Yes	Business Administration	Masters	52.0201	
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional One-Year MBA	32	OMB	52D5115	1	1	2	55,495.94	50,690.30	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional MBA in South Florida	48	SMB	52D5115	87	38	37	3,468,496.16	3,168,143.75	Yes	Business Administration	Masters	52.0201	Taught in Miramar, FL
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional Two-Year MBA	48	WMB	52D5115	0	1	1	27,747.97	25,345.15	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Executive MBA	48	XMB	52D5115	76	22	57	2,719,300.99	2,483,824.70	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Doctoral	Business Administration		60	DBP	52DBA	19	75	13	2,644,434.84	1,737,065.58	No				Students attend campus classes on weekends. *See Notes #2

Fiscal Year 2022-2023 Self-Supporting and Market Tuition Rate Report

CIP Code (XX.XXXX)	Program Name (in inventory)	Program Level	Program Type	Local Program Name (if different from inventory name)	Major or Track Name (if different)	Program Length	UF Code	Flex	Tuition Type	Mode of Delivery	UBOT Tuition Approval Date	BOG Tuition Approval Date	Program Start Date		Tuition Rate Per Credit Hour - Resident	Tuition Rate Per Credit Hour - Non-Resident	Program Fees - Resident	Program Fees - Non-Resident	Resident Enrollment	Non-Resident Enrollment	Degree/Program Completions	Revenues	Expenditures	Comparable E&G Program				Additional Comments (if any)
													Term	Year										Comparable E&G Program?	Program Name	Degree/Program Level	CIP Code (XX.XXXX)	
01.0901	Animal Science	Undergraduate	Certificate	Animal Genetics		11	CAG	52SFUGANGN	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2023	149.24	500	See Notes #3	See Notes #3	0	3	0	2,947.72	-	Yes	Animal Genetics	Certificate	01.0901	
01.1101	Plant Sciences, General	Undergraduate	Certificate	Environmental Horticulture Management		15	EHM	52ENVHORT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2013	149.24	149.24	See Notes #3	See Notes #3	24	5	7	18,786.28	713.20	Yes	Environmental Horticulture Management	Certificate	01.1101	
01.1101	Plant Sciences, General	Undergraduate	Certificate	Horticultural Therapy		12	CHT	52SFUGCHT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	149.24	450	See Notes #3	See Notes #3	0	1	3	90,261.82	46,968.01	Yes	Horticultural Therapy	Certificate	01.1101	
01.1102	Agronomy and Crop Science	Graduate	Certificate	Sustainable Agroecosystems		12	AEG	52AGECOSYS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2015	529.25	529.25	See Notes #3	See Notes #3	2	3	1	12,702.00	27,596.65	Yes	Sustainable Agroecosystems	Certificate	01.1102	
01.1102	Agronomy and Crop Science	Graduate	Master's	Agronomy	Concentration in Agroecology	30	AME	52AGROECOL	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	17	6	3	83,998.42	14,202.64	Yes	Agronomy	Masters	01.1102	
01.1102	Agronomy and Crop Science	Graduate	Certificate	Weed Science		9	CWS	52SFGCWSC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	529.25	529.25	See Notes #3	See Notes #3	3	1	0	7,938.75	1,628.06	Yes	Weed Science	Certificate	01.1102	
01.1201	Soil Science and Agronomy, General	Graduate	Master's	Soil and Water Science	Concentration in Agroecology	30	AME	52AGROECOL	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	2	6	0	29,216.84	4,940.05	Yes	Soil and Water Science	Masters	01.1201	
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Biodegradation and Bioremediation		12	GBB	52CALSDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	529.25	529.25	See Notes #3	See Notes #3	1	3	1	13,351.95	11,322.16	Yes	Biodegradation and Bioremediation	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Soil Ecosystem Services		9	SES	52CALSDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	529.25	529.25	See Notes #3	See Notes #3	1	0	1	3,337.99	2,830.54	Yes	Soil Ecosystem Services	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Sustainable Land Resource and Nutrient Management		12	SLR	52CALSDE	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2017	529.25	529.25	See Notes #3	See Notes #3	1	3	2	13,351.95	11,322.16	Yes	Sustainable Land Resource and Nutrient Management	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Wetland and Water Resource Management		12	WWR	52CALSDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	529.25	529.25	See Notes #3	See Notes #3	7	2	2	30,041.90	25,474.86	Yes	Wetland and Water Resource Management	Certificate	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Master's	Soil and Water Science	Specialization in Environmental Science	30	SWD	52CALSDE	Market Rate	Online	11/3/2011	November 2011	Fall	2011	529.25	529.25	See Notes #3	See Notes #3	37	29	20	220,307.24	186,815.66	Yes	Soil and Water Science	Masters	01.1201	See Notes #2
01.1201	Soil Science and Agronomy, General	Graduate	Certificate	Fertilizer Science and Technology		12	FST	52SFGCFT	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2023	478.73	529.25	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Fertilizer Science and Technology	Certificate	01.1201	See Notes #2
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Forensic Toxicology		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	0	18	6	99,332.57	108,309.30	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Forensic Toxicology	30	TXM	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2015	525	525	See Notes #3	See Notes #3	9	56	18	358,700.93	391,116.91	Yes	Veterinary Medical Science	Masters	01.8101	See Notes #2
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Care and Conservation of Aquatic Animals		12	CCA	52GC-CCAA	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2020	550	550	See Notes #3	See Notes #3	11	10		51,150.00	56,962.77	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Shelter Medicine	30	SHM	52MSSHELTR	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2015	525	525	See Notes #3	See Notes #3	25	93	20	529,122.46	192,080.76	Yes	Veterinary Medical Science	Masters	01.8101	
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Master's	Veterinary Medical Science	Concentration in Veterinary Forensic Sciences	32	FSV	52MSVFS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2002	575	575	See Notes #3	See Notes #3	31	103	38	721,864.25	529,003.30	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Shelter Medicine		12	VSH	52SHELTER	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2013	525	525	See Notes #3	See Notes #3	8	49	14	185,432.09	163,602.02	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Veterinary Forensic Sciences		15	VFS	52VETFS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	525	525	See Notes #3	See Notes #3	8	32	18	182,424.76	95,245.54	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Wildlife Forensic Sciences and Conservation		15	WFS	52WFSC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2015	525	525	See Notes #3	See Notes #3	9	23	8	124,027.32	113,124.90	No				
01.8101	Veterinary Sciences/Veterinary Clinical Sciences, General	Graduate	Certificate	Animal Shelter Leadership		15	ASL	52SFASL	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2022	478.73	575	See Notes #3	See Notes #3	8	49	14	9,971.19	-	No				
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Certificate	Aquaculture and Fish Health		12	AFH	52FISH	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	529.25	529.25	See Notes #3	See Notes #3	13	11	6	72,507.02	51,055.81	Yes	Aquaculture and Fish Health	Certificate	03.0301	See Notes #2
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Certificate	Quantitative Fisheries Science		11	CQF	52FISH	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	529.25	529.25	See Notes #3	See Notes #3	0	3	0	9,063.38	6,381.98	Yes	Quantitative Fisheries Science	Certificate	03.0301	
03.0301	Fishing and Fisheries Sciences and Management	Graduate	Master's	Fisheries and Aquatic Sciences		32	ASF	52FISH	Market Rate	Online	11/5/2013	November 2013	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	13	31	14	132,929.53	93,602.32	Yes	Fisheries and Aquatic Sciences	Masters	03.0301	
03.0501	Forestry, General	Graduate	Certificate	Ecological Restoration		15	CER	52FRC	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	529.25	529.25	See Notes #3	See Notes #3	31	12	16	135,370.22	123,566.26	Yes	Ecological Restoration	Certificate	03.0301	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Ecological Restoration	30	FCD	52FRC	Market Rate	Online	9/21/2012	November 2012	Spring	2012	529.25	529.25	See Notes #3	See Notes #3	34	23	19	179,444.24	163,797.13	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Geomatics	30	MFR	52GEOMATIC	Market Rate	Online	9/21/2012	November 2012	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	10	3	7	30,027.54	20,130.70	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Certificate	Natural Resource Policy and Administration		12	NRC	52POLICY	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2017	551.68	551.68	See Notes #3	See Notes #3	7	5	3	71,818.32	65,318.52	Yes	Natural Resource Policy and Administration	Certificate	03.0301	
03.0501	Forestry, General	Graduate	Master's	Forest Resources and Conservation	Concentration in Natural Resource Policy and Administration	30	NRP	52POLICY	Market Rate	Online	10/1/2015	November 2015	Summer	2014	529.25	529.25	See Notes #3	See Notes #3	12	4	8	95,757.76	87,091.36	Yes	Forest Resources and Conservation	Masters	03.0501	
03.0501	Forestry, General	Graduate	Certificate	Forest Health and Resilience		12	FHR	52SFGCFHR	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2019	606.68	606.68	See Notes #3	See Notes #3	0	0	1	-	-	Yes	Forest Health and Resilience	Certificate	03.0501	
03.0501	Forestry, General	Graduate	Certificate	Environmental Education and Communication		11-12	EEC	52GCAGEC	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2023	478.73	606.68	See Notes #3	See Notes #3	0	0	0	4,038.57	467.89	Yes	Environmental Education and Communication	Certificate	03.0501	
03.0601	Wildlife, Fish and Wildlands Science and Management	Graduate	Master's	Wildlife Ecology and Conservation	Concentration in Wildlife Forensic Sciences and Conservation	33	WFM	52MSWEC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2018	575	575	See Notes #3	See Notes #3	17	88	19	563,360.74	209,000.26	Yes	Wildlife Ecology	Masters	03.0601	
04.0201	Architecture	Graduate	Certificate	Themed Environments Integration		21	TEI	52GCCLAREI	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2020	750	750	See Notes #3	See Notes #3	1	0	0	14,965.44	20,697.58	No				
04.0201	Architecture	Graduate	Master's	Architectural Studies	Orlando/Citylab	30	MAO	52MAO	Market Rate	Face to Face	9/21/2012	November 2012	Fall	2012	750	750	See Notes #3	See Notes #3	0	2	1	29,930.88	41,395.17	Yes	Architectural Studies	Masters	04.0201	Taught in Orlando, FL
04.0201	Architecture	Graduate	Master's	Architecture	Orlando/Citylab	52	MAO	52MAO	Market Rate	Face to Face	9/21/2012	November 2012	Fall	2012	750	750	See Notes #3	See Notes #3	44	20	22	957,788.04	1,324,645.33	Yes	Architecture	Masters	04.0201	Taught in Orlando, FL
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Themed Environments Integration Orlando/Citylab	36	TEM	52MSCLAREI	Self Supporting	Face to Face	See Notes #1	See Notes #1	Fall	2019	750	750	See Notes #3	See Notes #3	11	14	8	374,135.95	517,439.58	No				
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Sustainable Design	36	SDC	52SINGA	Self Supporting	Face to Face	See Notes #1	See Notes #1	Fall	2011	558.33	558.33	See Notes #3	See Notes #3	0	0	1	-	-	Yes	Architectural Studies	Masters	04.0201	These students come to campus from China exclusively for this program. See Notes #2
04.0201	Architecture	Graduate	Master's	Architectural Studies	Concentration in Sustainable Design	36	SDM	52SINGA	Self Supporting	Face to Face	See Notes #1	See Notes #1	Spring	2011	752.92	752.92	See Notes #3	See Notes #3	1	2	5	117,356.36	162,704.88	Yes	Architectural Studies	Masters	04.0201	See Notes #2
04.0201	Architecture	Graduate	Master's	Architecture	Jacksonville/Citylab	52	MAJ	52MSARJAX	Market Rate	Hybrid	See Notes #1	See Notes #1	Fall	2022	750	750	See Notes #3	See Notes #3	0	0	0	2,250.00	-	Yes	Architecture	Masters	04.0201	Taught in Jacksonville, FL
04.0301	City/Urban, Community, and Regional Planning	Graduate	Master's	Urban and Regional Planning		52	GUR	52DCPGIS	Market Rate	Online	11/3/2011	November 2011	Fall	2012	822.2	822.2	See Notes #3	See Notes #3	22	86	11	1,159,212.61	1,428,413.87	Yes	Urban and Regional Planning	Masters	04.0301	
04.0301	City/Urban, Community, and Regional Planning	Graduate	Certificate	Geographic Information Systems (GIS) for Urban/Regional Planners		12	GU2	52GISCERT	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2017	661.68	661.68	See Notes #3	See Notes #3	14	6	4	69,047.72	10,979.98	No				See Notes #2
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Digital Strategy	36	DTS	52JMDTS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	448.73	448.73	See Notes #3	See Notes #3	152	122	53	1,504,614.18	265,763.84	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Audience Analytics	37	ANL	52JMANALYT	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2017	850	850	See Notes #3	See Notes #3	12	7	2	154,756.50	90,512.95	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Global Strategic Communication		12	SCD	52JMCOMM	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2013	850	850	See Notes #3	See Notes #3	0	4	12	18,534.18	2,734.68	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Social Media Professional		12	SMC	52JMCOMM	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2013	780	780	See Notes #3	See Notes #3	3	7	22	46,335.45	6,836.69	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Global Strategic Communications	36	COD	52JMCOMM	Market Rate	Online	11/3/2011	November 2012	Fall	2011	850	850	See Notes #3	See Notes #3	38	38	13	352,149.45	51,958.84	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Social Media	36	SMM	52JMCOMM	Market Rate	Online	9/21/2012	November 2012	Fall	2012	780	780	See Notes #3	See Notes #3	41	30	17	328,981.72	48,540.49	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Public Interest Communication	36	PIC	52JMPIC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	448.73	448.73	See Notes #3	See Notes #3	44	38	10	231,707.91	112,088.01	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Political Communication	36	POL	52JMPLC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	448.73	448.73	See Notes #3	See Notes #3	11	10	3	59,339.83	28,705.47	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Public Relations Communication Management	36	PRM	52JMPUBREL	Market Rate	Online	See Notes #1	See Notes #1	Fall	2015	550	550	See Notes #3	See Notes #3	85	62	32	1,298,499.62	164,047.02	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Web Design and Online Communication		14	WDC	52JMWEB	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	564	564	See Notes #3	See Notes #3	2	6	19	56,212.79	18,507.06	No				
09.0102	Mass Communication/Media Studies	Graduate	Master's	Mass Communication	Specialization in Web Design and Online Communication	37	WDO	52JMWEB	Market Rate	Online	11/3/2011	November 2012	Fall	2011	564	564	See Notes #3	See Notes #3	41	41	33	576,181.09	189,697.31	No				
09.0102	Mass Communication/Media Studies	Graduate	Certificate	Audience Analytics		13	AAC	52SFGCAA	Self-supporting	Online	See Notes #1	See Notes #1	Fall	2021	850	850	See Notes #3	See Notes #3	3	1	6	21,462.50	-	No				
11.0101	Computer and Information Sciences, General	Graduate	Master's	Computer Science		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	4	2	19,701.24	21,716.22	Yes	Computer Science	Masters	11.0101	See Notes #2
13.0401	Educational Leadership and Administration, General	Graduate	Master's	Educational Leadership		36	MLD	52EDLEADER	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	695.46	695.46	See Notes #3	See Notes #3	76	27	19	704,113.16	484,337.13	Yes	Educational Leadership	Masters	13.0401	
13.1001	Special Education and Teaching, General	Graduate	Certificate	Dyslexia Assessment & Intervention		15	DAI	52GCDYSINT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2019	448.73	448.73	See Notes #3	See Notes #3	47	76	40	406,751.45	400,213.46	Yes	Dyslexia Assessment & Intervention	Certificate	13.1001	
13.1301	Agricultural Teacher Education	Graduate	Master's	Agricultural Education and Communication	Specialization in Agricultural Leadership	32	AEC	52AGEDDE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2010	524.25	524.25	See Notes #3	See Notes #3	32	10	9	138,810.70	117,988.60	Yes	Agricultural Education and Communication	Masters	13.1301	
13.1301	Agricultural Teacher Education	Graduate	Certificate	Agriscience Secondary Teaching		18	AST	52SFGCAST	Self-supporting	Online	See Notes #1	See Notes #1	Spring	2022	478.73	560	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Agriscience Secondary Teaching	Certificate	13.1301	
13.1301	Agricultural Teacher Education	Graduate	Certificate	Teaching and Learning in Agricultural and Life Sciences		9	TLA	52SFGCTLAG	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2022	478.73	560	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Teaching and Learning in Agricultural and Life Sciences	Certificate	13.1301	
13.1301	Agricultural Teacher Education	Graduate	Certificate	Leadership in Agricultural and Natural Resources		9	ANR	52SFGCLANR	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2022	478.73	560	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Leadership in Agricultural and Natural Resources	Certificate	13.1301	
13.1302	Art Teacher Education	Graduate	Master's	Art Education		36	ARD	52ARTEDMA	Market Rate	Online	9/21/2012	November 2012	Summer	2010	600	600	See Notes #3	See Notes #3	18	104	35	809,892.82	841,597.59	Yes	Art Education	Masters	13.1302	
13.1312	Music Teacher Education	Graduate	Master's	Music Education		33	MME	52MME	Market Rate	Online	11/5/2013	November 2013	Fall	2012	600	600	See Notes #3	See Notes #3	20	134	46	867,490.60	818,201.85	Yes	Music Education	Masters	13.1312	
14.0201	Aerospace, Aeronautical, and Astronautical/Space Engineering, General	Graduate	Master's	Aerospace Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	2	29	4	152,684.58	168,300.72	Yes	Aerospace Engineering	Masters	14.0201	
14.0301	Agricultural and Biological Engineering	Graduate	Master's		Concentration in Agroecology	30	AME	52AGROECOL	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	0	0	1	-	-	Yes	Agricultural and Biological Engineering	Masters	14.0301	
14.0301	Agricultural and Biological Engineering	Graduate	Master's			30	BIE	52SFMSAGBE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2022	448.73	530	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Agricultural and Biological Engineering	Masters	14.0301	
14.0701	Chemical Engineering	Graduate	Master's			30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	0	4,925.31	5,429.06	Yes	Chemical Engineering	Masters	14.0701	See Notes #2
14.0801	Civil Engineering, General	Graduate	Certificate	Transportation Operations and Planning		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Transportation Operations and Planning	Certificate	14.0801	See Notes #2
14.0801	Civil Engineering, General	Graduate	Master's	ME Civil Engineering		30	FED	52EDGE	Market Rate	Online	11/5/2013	November 2013	Spring	2001	690	690	See Notes #3	See Notes #3	0	2	2	9,850.62	10,858.11	Yes	Civil Engineering	Masters	14.0801	See Notes #2
14.0801	Civil Engineering, General	Graduate	Master's	MS Civil Engineering		30	FED	52EDGE	Market Rate	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	0	4,925.31	5,429.06	Yes	Civil Engineering	Masters	14.0801	See Notes #2
14.0901	Computer Engineering, General	Graduate	Master's	Computer Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	1	0	0	4,925.31	5,429.06	Yes	Computer Engineering	Masters	14.0901	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Certificate	Hardware and System Security		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	0	4,925.31	5,429.06	Yes	Hardware and System Security	Certificate	14.1001	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Certificate	Machine Learning		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	0	4,925.31	5,429.06	Yes	Machine Learning	Certificate	14.1001	Certificate
14.1001	Electrical and Electronics Engineering	Graduate	Master's	ME Electrical and Computer Engineering		30	FED	52EDGE	Market Rate	Online	11/5/2013	November 2013	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	1	4,925.31	5,429.06	Yes	Electrical and Computer Engineering	Masters	14.1001	See Notes #2
14.1001	Electrical and Electronics Engineering	Graduate	Master's	MS Electrical and Computer Engineering		30	FED	52EDGE	Market Rate	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	1	56	5	280,742.61	309,456.17	Yes	Electrical and Computer Engineering	Masters	14.1001	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Certificate	Wetland Sciences		16	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Wetland Sciences	Certificate	14.1401	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Master's	ME Environmental Engineering Sciences		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	1	21	3	108,356.80	119,439.22	Yes	Environmental Engineering Sciences	Masters	14.1401	See Notes #2
14.1401	Environmental/Environmental Health Engineering	Graduate	Master's	MS Environmental Engineering Sciences		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	1	10	6	54,178.40	59,719.61	Yes	Environmental Engineering Sciences	Masters	14.1401	See Notes #2
14.1801	Materials Engineering	Graduate	Certificate	Materials Characterization		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	2	0	9,850.62	10,858.11	Yes	Materials Characterization	Certificate	14.1801	Certificate
14.1801	Materials Engineering	Graduate	Master's	Materials Science and Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	41	11	201,937.67	222,591.28	Yes	Materials Science and Engineering	Masters	14.1801	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Advanced Manufacturing		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	2	-	-	Yes	Advanced Manufacturing	Certificate	14.1901	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Control Systems		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	3	5	14,775.93	16,287.17	Yes	Control Systems	Certificate	14.1901	See Notes #2
14.1901	Mechanical Engineering	Graduate	Certificate	Energy Management		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Energy Management	Certificate	14.1901	
14.1901	Mechanical Engineering	Graduate	Master's	ME Mechanical Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Mechanical Engineering	Masters	14.1901	
14.1901	Mechanical Engineering	Graduate	Master's	MS Mechanical Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	45	13	221,638.90	244,307.50	Yes	Mechanical Engineering	Masters	14.1901	See Notes #2
14.2701	Industrial & Systems Engineering	Graduate	Certificate	Engineering Leadership		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	2	4,925.31	5,429.06	Yes	Engineering Leadership	Certificate	14.2701	
14.2701	Systems Engineering	Graduate	Certificate	Engineering Project Management		12	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	0	7	-	-	Yes	Engineering Project Management	Certificate	14.2701	Certificate
14.2701	Industrial & Systems Engineering	Graduate	Certificate	Systems Engineering		9	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	0	1	3	4,925.31	5,429.06	Yes	Systems Engineering	Certificate	14.2701	
14.2701	Systems Engineering	Graduate	Master's	Industrial and Systems Engineering		30	FED	52EDGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2001	690	690	See Notes #3	See Notes #3	1	16	1	83,730.25	92,293.94	Yes	Industrial and Systems Engineering	Masters	14.2701	See Notes #2
14.2701	Systems Engineering	Graduate	Master's	ME Industrial and Systems Engineering	Concentration in Engineering Management	32	ISN	52OEMPROG	Market Rate	Face to Face	11/7/2011	March 2011	Fall	2000	935	935	See Notes #3	See Notes #3	9	1	5	96,316.40	73,659.70	Yes	Industrial and Systems Engineering	Masters	14.2701	Taught in Orlando, FL
14.2701	Systems Engineering	Graduate	Master's	MS Industrial and Systems Engineering	Concentration in Engineering Management	32	ISN	52OEMPROG	Market Rate	Face to Face	11/7/2011	March 2011	Fall	2000	935	935	See Notes #3	See Notes #3	60	14	46	712,741.36	545,022.58	Yes	Industrial and Systems Engineering	Masters	14.2701	Taught in Orlando, FL
15.1001	Construction Engineering Technology/Technician	Graduate	Certificate	Construction Project Management		12	ICM	52ICM	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2008	629.71	629.71	See Notes #3	See Notes #3	2	1	3	10,098.71	8,763.11	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Certificate	Sustainable Construction		12	ICM	52ICM	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2008	629.71	629.71	See Notes #3	See Notes #3	1	0	1	3,366.24	2,921.04	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Master's	MICM Construction Management		33	ICM	52ICM	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2001	609.71	609.71	See Notes #3	See Notes #3	6	12	9	60,592.28	52,578.69	No				
15.1001	Construction Engineering Technology/Technician	Graduate	Master's	MCM Construction Management		36	MCM	52MSCONMGT	Self Supporting	Face to Face	6/19/2019	See Notes #1	Fall	2019	1000	1000	See Notes #3	See Notes #3	1	0	5	-	23,098.86	Yes	Construction Management	Masters	15.1001	Taught in Orlando,FL
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General	Graduate	Doctoral	Classical Studies	Classical Studies (Includes 2 tracks)	60	CLA	52CLASSICS	Self Supporting	Hybrid	See Notes #1	See Notes #1	Fall	2003	508.92	508.92	See Notes #3	See Notes #3	3	16	2	82,562.48	108,065.97	Yes	Classical Studies	Doctoral	16.1200	See Notes #2
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General	Graduate	Master's	Classical Studies			CLA	52CLASSICS	Self Supporting										1	1	0	8,690.79	11,375.37					
16.1203	Latin Language and Literature	Graduate	Master's	Latin		30	CLA	52CLASSICS	Self Supporting	Hybrid	See Notes #1	See Notes #1	Fall	2003	508.92	508.92	See Notes #3	See Notes #3	1	4	2	21,726.97	28,438.41	Yes	Latin	Masters	16.1203	See Notes #2
19.0707	Family and Community Services	Graduate	Certificate	Nonprofit Leadership		18	NPM	52NPCERT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2010	509.45	509.45	See Notes #3	See Notes #3	9	1	7	36,470.14	19,997.06	Yes	Nonprofit Leadership	Certificate	19.0707	
19.0707	Family and Community Services	Graduate	Master's	Family, Youth and Community Science	Family, Youth and Community Science (Includes 3 tracks)	30	FYD	52NPCERT	Market Rate	Online	10/1/2015	November 2015	Fall	2012	487.02	487.02	See Notes #3	See Notes #3	43	16	16	215,173.80	117,982.64	Yes	Family, Youth and Community Science	Masters	19.0707	See Notes #2
26.0403	Anatomy	Graduate	Master's	Anatomical Sciences Education		32	ASE	52SFMSASE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	550	550	See Notes #3	See Notes #3	22	64	2	475,766.72	287,954.63	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Master's	Microbiology and Cell Science	Concentration in Medical Microbiology and Biochemistry	30	MMB	52MSMBCS	Market Rate	Online	11/3/2014	November 2014	Fall	2015	535	535	See Notes #3	See Notes #3	251	771	187	5,275,786.68	4,713,731.15	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Environmental Microbiology		13	CEM	52SFGCENV	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	535	535	See Notes #3	See Notes #3	2	11		60,990.00	271.20	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Microbiome and Health		12	MBH	52SFGCMBH	Self-supporting	Online	See Notes #1	See Notes #1	Summer	2021	535	535	See Notes #3	See Notes #3	4	15	4	73,033.75	538.35	No				
26.0503	Medical Microbiology and Bacteriology	Graduate	Certificate	Medical Microbiology		11	CMG	52SFGCMDMB	Self-supporting	Online	See Notes #1	See Notes #1	Fall	2021	535	535	See Notes #3	See Notes #3	7	10	2	80,354.32	3,505.00	Yes	Medical Microbiology	Certificate	26.0503	
26.0702	Entomology	Graduate	Master's	Entomology and Nematology	Concentration in Agroecology	30	AME	52AGROECOL	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	529.25	529.25	See Notes #3	See Notes #3	0	1	0	3,652.11	617.51	Yes	Entomology and Nematology	Masters	26.0702	
26.0702	Entomology	Graduate	Certificate	Medical Entomology		15	PST	52ENTOM	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	511.35	511.35	See Notes #3	See Notes #3	5	7	4	77,340.53	67,474.76	Yes	Medical Entomology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Graduate	Certificate	Landscape Pest Management		15	PST	52ENTOM	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	511.35	511.35	See Notes #3	See Notes #3	3	1	1	25,780.18	22,491.59	Yes	Landscape Pest Management	Certificate	26.0702	See Notes #2
26.0702	Entomology	Graduate	Certificate	Urban Pest Management		15	PST	52ENTOM	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	511.35	511.35	See Notes #3	See Notes #3	0	4	0	25,780.18	22,491.59					
26.0702	Entomology	Undergraduate	Certificate	Pest Control Technology		24	EUN	52ENTUG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	200	200	See Notes #3	See Notes #3	7	2	4	14,400.00	32,284.79	Yes	Pest Control Technology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Medical Entomology		15	EUN	52ENTUG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	200	200	See Notes #3	See Notes #3	1	2	0	4,800.00	10,761.60	Yes	Medical Entomology	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Urban Pest Management		15	EUN	52ENTUG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	200	200	See Notes #3	See Notes #3	0	2	1	3,200.00	7,174.40	Yes	Urban Pest Management	Certificate	26.0702	See Notes #2
26.0702	Entomology	Undergraduate	Certificate	Landscape Pest Management		15	EUN	52ENTUG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2011	200	200	See Notes #3	See Notes #3	1	0	0	1,600.00	3,587.20	Yes	Landscape Pest Management	Certificate	26.0702	See Notes #2
26.0702	Entomology	Graduate	Master's	Entomology and Nematology	Entomology and Nematology (Includes 4 tracks)	30	PS1	52MSENTOM	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2016	511.35	511.35	See Notes #3	See Notes #3	23	71	8	296,129.76	266,085.15	Yes	Entomology and Nematology	Masters	26.0702	
26.0702	Entomology	Graduate	Certificate	Beekeeping		15	BEE	52GCAGBK	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2023	478.73	511.35	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Entomology	Certificate	26.0702	
26.0702	Entomology	Graduate	Master's		Specialization in Beekeeping	30	BED	52MSAGBK	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2023	478.73	511.35	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Entomology	Masters	26.0702	
26.0908	Exercise Physiology and Kinesiology	Graduate	Master's	Applied Physiology and Kinesiology	Concentration in Human Performance	30	MHP	52MSAPK-HP	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2019	550	550	See Notes #3	See Notes #3	93	248	67	2,107,646.14	2,471,057.09	Yes	Applied Physiology and Kinesiology	Masters	26.0908	
26.1102	Biostatistics	Graduate	Master's			36	BTS	52BIOSTATS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2016	750	750	See Notes #3	See Notes #3	16	31	11	320,625.00	446,132.65	Yes	Biostatistics	Masters	26.1102	
26.1102	Biostatistics	Graduate	Master's		Concentration in Health Data Science	36	HDS	52MSBIOHDS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2022	448.73	950	See Notes #3	See Notes #3	3	4	0	41,489.04	100.00	Yes	Biostatistics	Masters	26.1102	
26.1309	Epidemiology	Graduate	Certificate	Psychiatric Epidemiology		12	CPE	52EPIDEM	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2015	930	930	See Notes #3	See Notes #3	0	2	1	930.00	4,623.62	No				
26.1309	Epidemiology	Graduate	Certificate	One Health		12	MG2	52MHSEGH	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	650	650	See Notes #3	See Notes #3	1	0	0	6,519.29	9,067.25	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Aging and Geriatric Practice		15	CGP	52CERTAGE	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2015	550	550	See Notes #3	See Notes #3	3	1	4	18,671.40	45,468.68	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Anatomical Sciences Education		12	SED	52GCANSCED	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2018	550	550	See Notes #3	See Notes #3	0	8	0	26,679.72	40,120.94	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Biomedical Neuroscience		13	BMN	52GCBN	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	550	550	See Notes #3	See Notes #3	5	13		41,863.32	100,698.44	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Human Anatomy		13	MHA	52MDHUMANT	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2015	550	550	See Notes #3	See Notes #3	5	23	12	149,150.00	161,515.69	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Anatomy and Physiology		15	MAH	52MEDANT	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	550	550	See Notes #3	See Notes #3	4	16	6	67,740.81	74,325.15	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Physiology		9	CMP	52MEDPHYS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2013	550	550	See Notes #3	See Notes #3	0	0	0	-	-	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Medical Physiology - Cardiovascular/Renal Physiology		12	CRP	52MEDPHYS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2013	550	550	See Notes #3	See Notes #3	0	5	1	332,215.35	400,213.57	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Certificate	Addiction and Recovery		18	AAR	52MEDPSY	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2015	590	590	See Notes #3	See Notes #3	7	5	5	32,025.00	30,770.22	No				See Notes #2
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Aging and Geriatric Practice	36	MGP	52MSAGING	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2015	550	550	See Notes #3	See Notes #3	21	21	4	224,617.94	122,795.37	Yes	Medical Sciences	Masters	26.9999	
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Forensic Medicine	37	MFM	52MSMSFM	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	575	575	See Notes #3	See Notes #3	57	183	38	1,859,904.74	390,363.15	No				
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Biomedical Neuroscience	30	BNS	52FMSBNS	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	550	550	See Notes #3	See Notes #3	19	68	2	377,713.49	163,917.94	Yes	Medical Sciences	Masters	26.9999	
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Medical Physiology and Pharmacology	30	MPP	52SFMSPHY	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2020	550	550	See Notes #3	See Notes #3	109	248	35	2,672,909.30	2,052,291.96	Yes	Medical Sciences	Masters	26.9999	
26.9999	Biological and Biomedical Sciences, Other	Graduate	Master's	Medical Sciences	Concentration in Medical Physiology and Aging	30	MPG	52MSMDPHAG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2022	448.73	650	See Notes #3	See Notes #3	0	1	0	19,374.60	-	Yes	Medical Sciences	Masters	26.9999	
30.9999	Multi-/Interdisciplinary Studies, Other	Graduate	Certificate	Arts in Medicine		12	ARM	52ARMCERT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2012	660	660	See Notes #3	See Notes #3	1	9	6	25,740.00	19,760.19	No				See Notes #2
31.0301	Parks, Recreation, and Leisure Facilities Management, General	Graduate	Master's	Tourism and Hospitality Management	Specialization in Hospitality Business Management	30	HBM	52MSTRSMHB	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2018	550	550	See Notes #3	See Notes #3	16	18	20	215,600.00	134,738.39	Yes	Tourism and Recreation Management	Masters	31.0301	
31.0504	Sport and Fitness Administration/Management	Graduate	Certificate	Sport Event Management		9	SEM	52GCSPTEVT	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2019	550	550	See Notes #3	See Notes #3	4	2	8	23,285.12	27,006.83	Yes	Sport Event Management	Certificate	31.0504	
31.0504	Sport and Fitness Administration/Management	Graduate	Master's	Sport Management		36	OSM	52MSSPORT	Market Rate	Online	10/1/2015	November 2015	Fall	2014	550	550	See Notes #3	See Notes #3	123	231	98	2,304,118.47	2,178,485.91	Yes	Sport Management	Masters	31.0504	
40.0601	Geology/Earth Science, General	Undergraduate	Certificate	Geological Sciences		16	CIG	52PBCG	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	149	750	See Notes #3	See Notes #3	11	4	1	30,387.00	34,687.63	Yes	Geological Sciences	Certificate	40.0601	See Notes #2
43.0203	Fire Science/Fire-fighting	Graduate	Certificate	Emergency Services/Disaster Management		11	ESD	52MSFES	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2014	609.71	609.71	See Notes #3	See Notes #3	1	0	12	5,929.89	6,731.89	No				See Notes #2
43.0203	Fire Science/Fire-fighting	Graduate	Master's	Fire and Emergency Services		33	ESD	52MSFES	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2014	609.71	609.71	See Notes #3	See Notes #3	32	21	12	314,284.28	356,790.01	No				See Notes #2
45.0701	Geography	Graduate	Certificate	Geospatial Analysis		9	CGA	52FRC	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2018	529.25	529.25	See Notes #3	See Notes #3	14	2	3	50,370.31	45,978.14	Yes	Geospatial Analysis	Certificate	45.0701	
45.0701	Geography	Undergraduate	Certificate	Geomatics		15	GEO	52GEOMATIC	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2008	282.99	282.99	See Notes #3	See Notes #3	62	31	23	214,812.37	144,011.95	Yes	Geomatics	Certificate	45.0701	
45.0701	Geography	Graduate	Certificate	Digital Geography and GIS		11	DGG	52SFGGIS	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2023	478.73	600	See Notes #3	See Notes #3	0	0	0	-	-	Yes	Digital Geography and GIS	Certificate	45.0701	
50.0799	Fine Arts and Art Studies, Other	Graduate	Master's	Arts in Medicine		35	AMM	52ARMMA	Market Rate	Online	11/3/2014	November 2014	Fall	2014	660	660	See Notes #3	See Notes #3	27	31	14	473,194.77	468,048.47	No				
50.0799	Fine Arts and Art Studies, Other	Graduate	Certificate	Arts in Public Health		15	APH	52ARTPUB	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2021	580	580	See Notes #3	See Notes #3	1	8	4	33,060.00	19,644.23	No				See Notes #2
51.0202	Audiology/Audiologist	Graduate	Doctoral	Audiology		110	ADL	52DISTAUDD	Market Rate	Online	1/7/2011	March 2011	Spring	2000	347.2	347.2	See Notes #3	See Notes #3	0	0	0	694.40	-	Yes	Audiology	Doctoral	51.0202	Program Closed Spring 2020
51.0701	Health/Health Care Administration/Management	Graduate	Certificate	Geriatric Care Management		15	GCM	52GCMDE	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2008	550	550	See Notes #3	See Notes #3	0	0	0	-	-	No				
51.1201	Medicine	Graduate	Certificate	Medical Pharmacology and Therapeutics		9	MPC	52SFGCMDPH	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2019	550	550	See Notes #3	See Notes #3	6	14	7	76,528.36	61,189.11	No				
51.2001	Pharmacy	Graduate	Doctoral			63	WPN	52OSPHARMD	Market Rate	Face to Face	See Notes #1	See Notes #1	Fall	2015	NA	NA	See Notes #3	See Notes #3	0	129	30	3,933,001.38	3,487,365.86	Yes	Pharmacy	Doctoral	51.2001	Jacksonville, FL & Orlando, FL *See Notes #2
51.2001	Pharmacy	Graduate	Doctoral			63	WPD	52WPPD	Market Rate	Online	1/7/2011	November 2014	Spring	1997	650	650	See Notes #3	See Notes #3	0	0	0	1,100.00	1,602.77	Yes	Pharmacy	Doctoral	51.2001	Program Closed Fall 2019
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Clinical Toxicology		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	7	30	11	204,183.61	222,635.78	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic Death Investigation		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	14	30	18	242,812.94	264,756.06	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic DNA and Serology		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	6	28	13	187,628.18	204,584.23	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Forensic Drug Chemistry		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	2	12	12	77,258.66	84,240.57	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutical Chemistry		15	TXC	52FORSCIDE	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	575	575	See Notes #3	See Notes #3	3	25	6	154,517.33	168,481.13	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Pharmaceutical Sciences (Includes 6 tracks)	32	TXM	52FORSCIDE	Market Rate	Online	See Notes #1	See Notes #1	Fall	2006	750	750	See Notes #3	See Notes #3	159	628	170	4,343,040.55	4,735,523.23	Yes	Pharmaceutical Sciences	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Comprehensive Medication Management		12	CMM	52GCCMM	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2018	650	650	See Notes #3	See Notes #3	0	0	0	-	4,389.15	No				See Notes #2
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Precision Medicine		9	CPD	52MSCP	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2014	448.73	448.73	See Notes #3	See Notes #3	7	15	0	71,325.00	47,082.94	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Concentration in Personalized Medicine	36	CPD	52MSCP	Self Supporting	Online	9/21/2012	November 2012	Fall	2014	448.73	448.73	See Notes #3	See Notes #3	5	53	4	188,038.62	124,127.76	Yes	Pharmacy	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Concentration in Individualized Medicine (Formerly Medication Therapy Management	30	MTM	52MTM	Market Rate	Online	9/21/2012	November 2012	Summer	2011	650	650	See Notes #3	See Notes #3	5	21	6	237,250.00	231,730.54	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Applied Pharmacoeconomics		15	PR1	52PHREG	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	750	750	See Notes #3	See Notes #3	2	6	5	49,328.78	46,096.57	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Health Equity		15	PR1	52PHREG	Self-supporting	Online	See Notes #1	See Notes #1	Fall	2020	750	750	See Notes #3	See Notes #3	0	0	0	-	-	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Managed Care Pharmacy Systems		15	PR1	52PHREG	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	750	750	See Notes #3	See Notes #3	1	2	4	18,498.29	17,286.21	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Medication Safety & Quality Systems		15	PR1	52PHREG	Self-supporting	Online	See Notes #1	See Notes #1	Spring	2021	750	750	See Notes #3	See Notes #3	1	1	2	12,332.20	11,524.14	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Patient Safety in Medication Use		15	PR1	52PHREG	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	750	750	See Notes #3	See Notes #3	0	0	1	-	-	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutical Value Assessment and Communication		15	PR1	52PHREG	Self-supporting	Online	See Notes #1	See Notes #1	Spring	2021	750	750	See Notes #3	See Notes #3	1	1	2	12,332.20	11,524.14	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Pharmaceutical Regulation		15	PR1	52PHREG	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2013	750	750	See Notes #3	See Notes #3	2	5	1	43,162.69	40,334.50	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Master's	Pharmaceutical Sciences	Pharmaceutical Sciences (Includes 5 tracks)	32	PHR	52PHREG	Market Rate	Online	First approval for this major was on 1/7/2011	March 2011	Spring	2010	575	575	See Notes #3	See Notes #3	33	129	57	998,907.87	933,455.58	Yes	Pharmaceutical Sciences	Masters	51.2099	
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Model-Informed Drug Development		12	MDD	52SFGCMIDD	Self-supporting	Online	See Notes #1	See Notes #1	Fall	2021	650	650	See Notes #3	See Notes #3	0	36	9	-	48,321.27	No				
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Graduate	Certificate	Clinical Pharmacology and Drug Development		12	CDD	52SFGCCPDD	Self-supporting	Online	See Notes #1	See Notes #1	Fall	2021	650	650	See Notes #3	See Notes #3	0	0	0	-	-	No				
51.2201	Public Health, General	Graduate	Master's	Public Health	Public Health (Includes 2 tracks)	48	MPD	52MPH	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2010	550	550	See Notes #3	See Notes #3	66	104	30	1,276,569.35	622,853.74	Yes	Public Health	Masters	51.2201	
51.2202	Environmental Health	Graduate	Master's	Environmental & Global Health	Concentration One Health	40	MG2	52MHSEGH	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	650	650	See Notes #3	See Notes #3	11	7	4	117,347.21	163,210.42	Yes	Environmental & Global Health	Masters	51.2202	
51.2202	Environmental Health	Graduate	Master's	Environmental & Global Health	Concentration One Health	40	MGH	52MHSEGH	Self Supporting	Face to Face	See Notes #1	See Notes #1	Fall	2012	650	650	See Notes #3	See Notes #3	0	0	1	-	-	Yes	Environmental & Global Health	Masters	51.2202	
51.2208	Community Health and Preventive Medicine	Graduate	Master's	Health Education and Behavior		30	MHE	52MSHEB	Self Supporting	Online	See Notes #1	See Notes #1	Fall	2017	550	550	See Notes #3	See Notes #3	56	58	30	768,512.87	564,462.39	Yes	Health Education and Behavior	Masters	51.2208	
51.2208	Community Health and Preventive Medicine	Graduate	Certificate	Public Health		15	PHC	52PHPROG	Self Supporting	Online	See Notes #1	See Notes #1	Summer	2008	550	550	See Notes #3	See Notes #3	11	15	11	86,670.92	177,067.60	Yes	Public Health	Certificate	51.2208	See Notes #2
52.0201	Business Administration and Management, General	Graduate	Master's	Entrepreneurship		36	MEI	52CEI	Self Supporting	Online	See Notes #1	See Notes #1	Spring	2010	700	700	See Notes #3	See Notes #3	0	0	0	705.39	43.21	Yes	Entrepreneurship	Masters	52.0201	Program sunset. Last admitted enrollments Summer 2018.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Online One Year MBA	32	M1M	52D5115	Market Rate	Hybrid	7/1/2011	March 2011	Spring	2012	1500	1500	See Notes #3	See Notes #3	97	111	167	5,660,215.48	21,764,901.38	Yes	Business Administration	Masters	52.0201	
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Online Two-Year MBA	48	M2M	52D5115	Market Rate	Hybrid	7/1/2011	March 2011	Fall	2011	1208.33	1208.33	See Notes #3	See Notes #3	212	252	144	12,626,634.54	11,715,677.77	Yes	Business Administration	Masters	52.0201	
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional One-Year MBA	32	OMB	52D5115	Market Rate	Face to Face	7/1/2011	March 2011	Spring	2012	1500	1500	See Notes #3	See Notes #3	0	0	2	-	-	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional MBA in South Florida	48	SMB	52D5115	Market Rate	Face to Face	7/1/2011	March 2011	Spring	2012	1354.17	1354.17	See Notes #3	See Notes #3	91	29	37	3,265,508.93	3,029,916.67	Yes	Business Administration	Masters	52.0201	Taught in Miramar, FL
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Professional Two-Year MBA	48	WMB	52D5115	Market Rate	Face to Face	7/1/2011	March 2011	Spring	2011	1208.33	1208.33	See Notes #3	See Notes #3	0	0	1	-	-	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Master's	Business Administration	Executive MBA	48	XMB	52D5115	Market Rate	Face to Face	7/1/2011	March 2011	Fall	2011	1270.83	1270.83	See Notes #3	See Notes #3	52	18	57	1,904,880.21	1,767,451.39	Yes	Business Administration	Masters	52.0201	Students attend campus classes on weekends.
52.0201	Business Administration and Management, General	Graduate	Doctoral	Business Administration		60	DBP	52DBA	Market Rate	Face to Face	11/5/2013	November 2013	Fall	2014	1765	1765	See Notes #3	See Notes #3	16	61	13	2,565,870.64	1,744,102.40	No				Students attend campus classes on weekends. *See Notes #2

Notes regarding Self-Supporting and Market Tuition Rate College-Credit Report

1. a) Charges for Self-Supporting Programs were subject to the approval of the presidents of the respective Universities [8.002 (2)(b)(4); 9/23/93].

   b) An Amendment [9/15/11] to this regulation established the limit on charges to be cost recovery except for Market Rate programs approved by the Board of Trustees and Board of Governors (BOG regulation 7.002).

   c) A major rewrite of the relevant regulation through Amendment [8/31/17] revised the charges permissible to:

   > "Tuition and fees charged for college-credit continuing education courses must be sufficient to offset the full instructional cost of serving the student and shall not exceed the existing approved tuition and out of state fees for similar level courses."

   Therefore, the policy and procedures that have been followed are as follows.

   Charges must be:
   - i) Equal to or great than the full instructional cost.
   - ii) Cannot exceed approved tuition and out of state fees for similar courses.
   - iii) Any exception to the upper boundary (b) must be approved by BOT and BOG (Market Tuition Rate).

2. Residuals carried forward result in some programs reflecting net expenses greater than revenue collected during the FY snapshot.

3. Per 8.002(b)(2). There are no additional fees added to Self-Supporting Programs.

UF | Board of Trustees
UNIVERSITY of FLORIDA

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC6
September 7, 2023

SUBJECT: University Press of Florida Annual Report

BACKGROUND INFORMATION

University Press of Florida, as an Academic Infrastructure Support Organization (AISO), must file with the Chancellor of the Board of Governors an annual report that is approved by the Board of Trustees prior to October 31st of each year.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the University Press of Florida Annual Report for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

The University Board-approved report is sent to the State University System Council of Academic Vice Presidents (CAVP) for review. After the CAVP review, the University must submit the report to the Chancellor of the Board of Governors, but Board of Governors approval is not required.

Supporting Documentation Included: University Press of Florida Annual Report.

Submitted by: J. Scott Angle, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, September 7, 2023.

_____ _____

Morteza "Mori" Hosseini, Chair Ben Sasse, President and Corporate Secretary

UNIVERSITY PRESS OF FLORIDA

UF PRESS

ANNUAL REPORT

2022–2023

Approval Date by (Board of Trustees or Designee):	Review Date by Council of Academic Vice Presidents:	Date of Submission to Board of Governors Office:
_____	_____	_____

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ABOUT THE PRESS

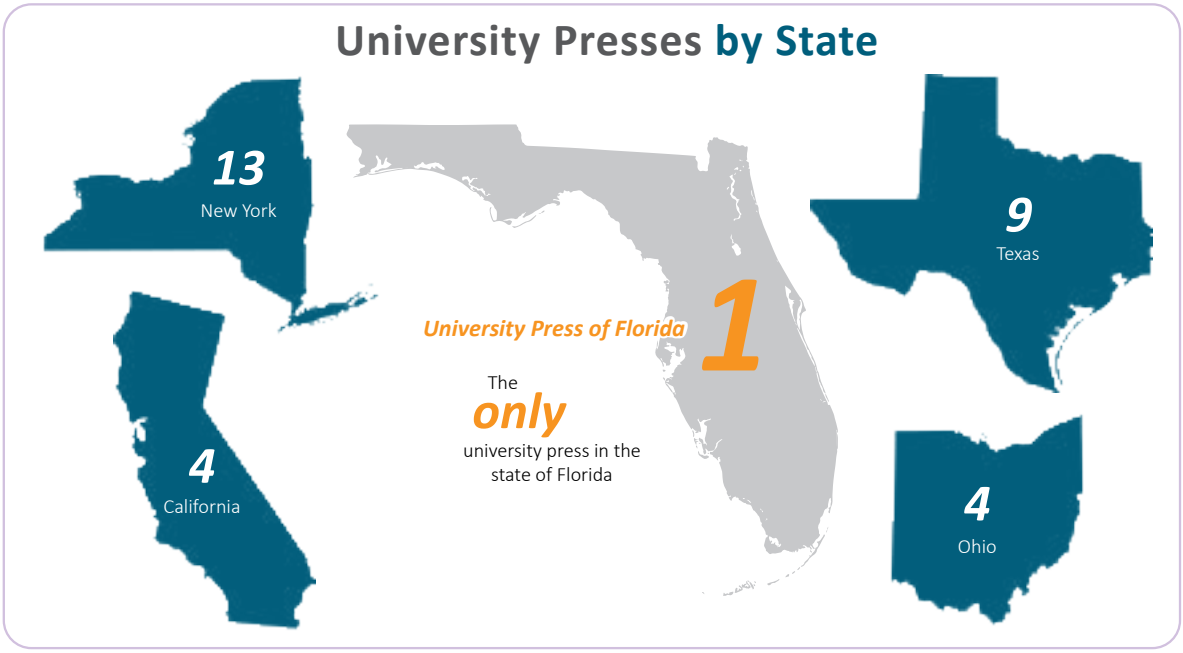
As the scholarly publishing arm of the State University System of Florida (SUS), the **University Press of Florida (UPF)** has been engaging students, educators, and discerning readers since its founding in 1945. With the re-establishment of the **University of Florida Press (UF Press)** in 2015, we also advance the threefold mission of the University of Florida: teaching, research, and public service.

The Press has published more than 3,000 volumes and currently releases nearly 70 titles each year. A nonprofit publisher of scholarly and general-interest books and journals, and one of the largest university presses in the South, we have earned a prominent reputation—among our publishing peers, scholars within our focus disciplines, and readers throughout the region—for publishing distinguished works by important global and local voices.

We are recognized throughout the publishing industry and within the academy not only for ***what*** we publish but also for ***how*** we publish. We harness the tools and tactics of responsible publishing to advance the mission and extend the influence of the universities we represent, making evident their commitment to the power of knowledge and the gift of ideas.

We invest in global marketing and dissemination strategies that bring transformative scholarship from Florida's universities, and beyond, to local, national, and global audiences. We pursue effective, sustainable, and innovative publishing methods and technologies to meet the needs of our readers. Through our award-winning regional publishing program, we offer the citizens of Florida engaging, authoritative works on the region's history, culture, art, music, food, literature, geography, politics, environment, and plant and animal life.

We skillfully produce exceptional books and journals for students, scholars, and general readers, disseminating globally the fruits of scholarly and creative endeavors. We are proud to serve the State University System of Florida, its universities, and the diverse communities of our state.



UNIVERSITY PRESS OF FLORIDA FACULTY ADVISORY BOARD

The University Press of Florida Advisory Board is composed of eleven distinguished members from the State University System of Florida and a chairperson from the Council of Academic Vice Presidents. The board meets quarterly to review and approve new projects for publication.

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Environmental Journalist in Residence
College of Journalism and Communications
University of Florida

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Professor
Department of Writing and Rhetoric
University of Central Florida

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University of West Florida

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Professor of History
Department of History and Political Science
Florida A&M University

Queen Zabriskie
Associate Professor of Sociology
Social Sciences Division
New College of Florida

UF PRESS FACULTY ADVISORY BOARD

The University of Florida Press Faculty Advisory Board is composed of a chairperson and ten distinguished faculty from across the UF campus and ex-officio representatives from Academic Affairs, the George A. Smathers Libraries, and the University Faculty Senate.

Jason Blackburn, Chair
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Director of the Spatial Epidemiology & Ecology Research Laboratory (SEER Lab)

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Ex-officio representative from the University Faculty Senate
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Ex-officio representative from the Office of Academic Affairs
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Professor of History
Director of the Samuel Proctor Oral History Program

Judith Russell
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George A. Smathers Libraries

Ruth Steiner
Professor, Urban and Regional Planning
Director of the Center for Health and the Built Environment

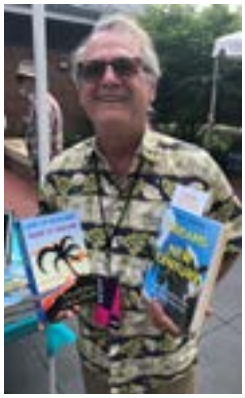
J. Richard Stepp
Professor of Anthropology
Center for Latin American Studies

ENGAGEMENT

This fiscal year the Press returned to its normal exhibit and conference schedule, while still taking advantage of the increased outreach that is possible now that many scholars are more comfortable with virtual meetings.

Whether virtual or in person, acquisitions editors engaged with SUS scholars—and scholars from around the world—at conferences and presentations including:

- Association for the Study of African American Life and History
- Southern Historical Association
- American Historical Association
- Southern Political Science Association Conference
- Miami Book Fair
- International Congress for Medieval Studies
- Latin American Studies Association
- Tidally United Summit, hosted by FGCU and the Florida Public Archaeology Network
- PastForward Conference
- Southeastern Archaeology Conference
- Institute of Andean Studies Conference
- Society for American Archaeology Conference
- American Association of Biological Anthropology Conference
- Florida Anthropological Society Conference
- Florida Historical Society
- National Council for Black Studies
- Global Conference for Sustainability in Higher Education
- Sustainability Next Summit
- Florida Native Plant Society Conference



The Press also completed its grant from the National Endowment for the Humanities (NEH), part of the Sustaining the Humanities through the American Rescue Plan (SHARP). This grant funded the project "Exploring Diverse Stories of America through Humanities Publishing," which included three webinar events—one completed in FY 21–22 and two completed in FY 22–23.

The first webinar event this year was "Race, Environment, Culture, and Political Ecology across the Americas." Moderated by Joel Correia, former assistant professor in the Center for Latin American Studies at the University of Florida and current assistant professor at Colorado State University, the webinar featured panelists Sophie Sapp Moore (Rice University), Alex Moulton (University of Tennessee), Miguel Rojas-Sotelo (Duke University), and Willie Wright (**University of Florida**). This event allowed the Press to signal its interest in expanding publications at the intersection of race and environmental issues.

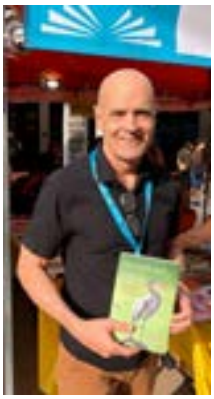
The second webinar event, "Publishing and the Humanities," was two sessions. The first panel, "Getting Published," included a presentation by the Press's editor in chief on the nuts and bolts of working with a university press to have a manuscript published and answered many of the typical questions first-time authors have. It also featured the Press's senior editor in conversation with two published authors, Darius Young (**Florida A&M University**) and Jorge Duany (**Florida International University**).

The second panel, "Career Paths in Humanities, Public Engagement, and Publishing," brought together scholars and professionals, all working in the humanities in ways that engage the public, to discuss how they arrived at their current career. This panel was moderated by Barbara Mennel, director of **UF's Center for the Humanities and the Public Sphere**, and the guest speakers were:

- Timothy Barber, director, Meek-Eaton Black Archives Research Center and Museum, **Florida Agricultural & Mechanical University**
- Jenna Kolesari, academic promotions manager, University Press of Florida
- Ana Menéndez, associate professor, Wolfsonian Public Humanities Lab and Department of English, **Florida International University**
- Pamela Schwartz, executive director, Orange County Regional History Center and Historical Society of Central Florida
- Kiara Thompson, assistant director, Sankofa African American Arts & Digital Humanities Initiative (SAAADHI) at the **University of Florida** and former NEH SHARP intern at University Press of Florida

All of the NEH grant–funded webinars can be viewed on the Press's YouTube channel.

Editors from the Press also conducted a virtual publishing workshop for faculty and students at **Florida Atlantic University** and an in-person publishing workshop for faculty and students at the **University of South Florida**. They also presented to a **University of Central Florida** undergraduate course on Scholarly Editing and Publishing. These targeted outreach opportunities allow the acquisitions department to continue to build connections with SUS faculty, staff, and students, while also serving our mission of educating prospective authors on the publication process.



The Press also worked with authors, volume contributors, peer reviewers, and event partners from museums, centers, and institutions in Florida and beyond, including NASA, the Smithsonian Institution, the Seminole Tribe of Florida, Florida Southern College, Florida Humanities, Florida Park Service, Rollins College, the University of Miami, Miami Dade College, Ringling College of Art and Design, Flagler College, Stetson University, Nova Southeastern University, Mary McLeod Bethune Council House, Atlanta History Center, Memphis Listening Lab, the National Park Service, and 1000 Friends of Florida. The Press's network also extended outside of the state as we worked with scholars from institutions across the United States, and scholars and researchers in 17 countries contributed to our publications.

The Press is a member of the Association of University Presses.

ASSOCIATION of UNIVERSITY PRESSES

FROM THE DIRECTOR

Fiscal year 2023 was an exciting, reinvigorating year at the Press. With the worst of the pandemic behind us, scholars returned to conferences and our editors could once again meet with them in person, to reestablish old connections and build new ones, to check in with a busy history professor about a book project on the back burner or inquire about an archaeologist's latest fieldwork. This is the way some of the best books come to fruition, through encouragement, conversations, or a probing question that opens new ideas.

Readers also returned to bookstores and libraries, gathering for author events or simply lingering between the bookshelves, searching for the perfect book. And the Press was ready to meet them there with our newest titles: an exploration of the musical and cultural impact of the Beatles in Florida; the multilayered tale of the Cuban sandwich; essays on the intertwined history, literature, and culture of Cuba and Puerto Rico; reflections on how the writing of James Joyce crosses boundaries and borders; a history of the activists and victories that made Florida a leader in land preservation; a close look at the cultural heritage of baseball; case studies of how archaeology can shed light on foodways in the past; an insider's account of a wrongful conviction and the fight to overturn it during the civil rights era; a study of the global activism of Mary McLeod Bethune; a close look at the influence of dance criticism in the United States across 100 years; essays on the emerging film industry in Central America; and many more titles that contribute to a rich and vibrant bibliodiversity.

While it's great to be (mostly) back to normal, we won't forget the lessons learned during the days we worried if we would ever get back to normal. In those days—working as a team, as editors working with authors, as a sales manager working with a bookstore—we learned to be flexible in making the best of suboptimal circumstances. We learned to be resilient because adversity can only last so long. And we learned that empathy is the cornerstone of community.

And that is what a university press is—a vital node in a community that spans scholars, students, readers, local bookstore owners, librarians, citizens, and everyone in an engaged public. As the only university press in the state of Florida, we are proud to be that link for the State University System, bringing voices from the state of Florida, from diverse backgrounds and disciplines, to readers across the globe.

Our work would not be possible without the support of the Board of Governors, the UF Board of Trustees, the Council of Academic Vice Presidents, our faculty editorial board members, and faculty members across the state and beyond. We are also immensely grateful to Dr. Joe Glover, who during his long tenure as Provost at the University of Florida, advocated tirelessly on our behalf.

Most importantly, Reader, our work would not be possible without your interest in our publications and your eagerness to explore each new season's books. Thank you for your generous support of the University Press of Florida and the University of Florida Press.

Romi Gutierrez
Director

The Press in Numbers

FY2023

Almost 98,000
Books sold throughout the world

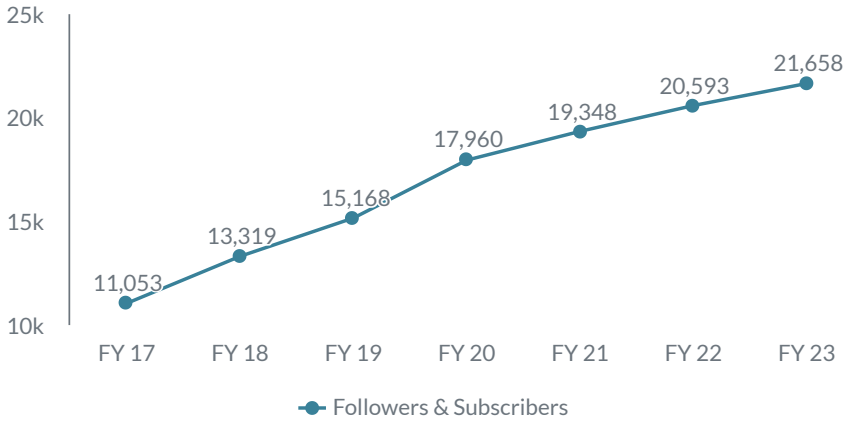
More than 2,000
Books in print

More than $76,000
in Book Sales generated per employee

472 Unique Emails
Promoting UPF & UFP Books

Engagement

Social Media Followers & Email Subscribers



52 NEW BOOKS | 40 NEW TO PAPER | 42 REPRINTS | 400+ DISTINCT PRODUCTS

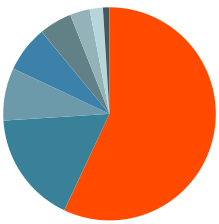
Board Approved Projects
48

Awards Won
23

Increase in Journals Revenue from Projection
13%

Journal Articles Published
221

Revenue Sources



- Book Sales (print + digital) (57%)
- State/SUS Support (17%)
- Additional CAVP Support (8%)
- Subsidies, Publication Services, Other (7%)
- UF Press, Provost Office (5%)
- Journals Revenue (3%)
- Permissions, Subsidiary Rights & Ebook Collections (2%)
- Foundation Funds (1%)

Reviews & Mentions

425

New York Times, Wall Street Journal, Washington Post, Economist, NPR, CNN, BBC, PBS, Chronicle of Higher Education, Rolling Stone, Southern Living, Garden & Gun, Local Palate, Miami Herald, Tampa Bay Times, Philadelphia Inquirer, Orlando Sentinel, National Space Society, American Antiquity, Historical Archaeology, Fodor's Travel, and more!

Author Events

139

NASA History Department, Smithsonian Institution, National Park Service Preserving the Race for Space Symposium, 1000 Friends of Florida, Mary McLeod Bethune Council House, Movement Research, Skye Ballet Center, Memphis Listening Lab, Atlanta History Center, Books & Books, Tombolo Books, and many more venues!

Conferences & Exhibits

28

African American Intellectual History Soc., American Historical Assoc., Assoc. for the Study of African American Life and History, Dance Studies Assoc., Intl Congress on Medieval Studies, Latin American Studies Assoc., Modern Language Assoc., Modernist Studies Assoc., SE Archaeological Conf., Soc. for American Archaeology, and more!

ARCHAEOLOGY · ANTHROPOLOGY
LATIN AMERICAN STUDIES
CARIBBEAN STUDIES · FORENSICS
ART · ARCHITECTURE · PHOTOGRAPHY
AFRICAN AMERICAN STUDIES
LITERATURE · DANCE · MUSIC · SPACE
FLORIDA · HISTORY
COOKING · GARDENING · SUSTAINABILITY

Holiday Sale
$22,661
NYE Sale: $11,559

Conference Sales
$46,681
last FY: $42,636

Total Sales to Direct Consumers through the Website
$128,228

UNIVERSITY PRESS OF FLORIDA | UF PRESS

SUPPORTING STUDENT SUCCESS AND CAREER DEVELOPMENT

Students play an integral role at the Press as valued staff performing meaningful tasks throughout the entire publishing workflow. The skills they learn at the Press help them develop workplace experience, publishing know-how, and business acumen. Our interns and student assistants have special skills in languages, business, marketing, and IT and are learning how to apply those in a professional setting. While gaining valuable office and interpersonal skills, they are also learning about the publishing process and the larger ecosystem of scholarly communications.

Press interns and student assistants have gone on to join diverse industries and companies, including Macmillan Education, Penguin Random House, W. W. Norton & Company, ABRAMS Books, Capital Publishing, MIT Press, University of Wisconsin Press, Brandeis University Press, University of North Carolina Press, University Press of Kentucky, Library Press @ UF, Akwaaba Freedom School, the American Institute of Architecture Students, Veeva Systems, TradeSmith, Spotify, WUFT, UF Lastinger Center for Learning's New Worlds Reading Initiative, Yahoo, Amazon, and Lockheed Martin. Several former interns and student assistants have also become established authors or have started their own businesses, including editorial consulting agencies and marketing firms.

The NEH SHARP grant, which helped to fund the Press's first paid internship program, concluded midway through FY 2022–2023, but the Press was able to continue its paid internships and looks forward to the FY 2023–2024 intern cohort.

The Press continues to fundraise and develop relationships that can support paid internships. Authors have the option to donate their royalties to the internship program as part of the Royalty Giveback campaign, which is now in its fourth year, and for the first time ever, the Press participated in Gator Giving Day with a campaign to help support our internship program.

Additionally, the Press has established its first named internship position with support from Dr. Melvyn New, UF professor emeritus. The Melvyn and Joan New Editing Internship, beginning Fall 2023, will support one intern position in the acquisitions and editorial, design, and production departments for many years to come.

FY23 INTERNS AND STUDENT ASSISTANTS

ACQUISITIONS

Murielle Le Maire*
MA in Latin American Studies
"In my two semesters with the Press, I have learned so much. The practical skills I gained working with the acquisitions department will provide me with the opportunity to continue working in the publishing world. I appreciate the efforts university presses make toward bringing diverse voices and histories to print, and it has opened up a world for me to continue to explore."

INTERNS AND STUDENT ASSISTANTS—*Continued*

Chad Lobo Munteanu*
BA in English
Minor in African American Studies
"I came here to learn publishing and I did learn a lot about the business—but I learned the most about my own potential and the possibilities that publishing presents. . . . Through observing the work done in acquisitions and by the editors throughout the publishing process, I was able to see a team invested in scholarship that stands out and stands up for minority communities and consistently pushes forward conversations surrounding them."

Madison Miguelez
BA in Linguistics

Maricarmen Torres Medina*
MA in Latin American Studies
"This experience gave me a glimpse into the relationships between collector and objects—in this case, the press team and the acquired works for publishing. During my time at the Press, I broadened my understanding of labor in the production process of a book. One of my first discoveries was that while many of us have an idyllic impression of the finished product, manuscripts are not perfect, and there is a whole nuanced process that brings them to publication."

Read more about Maricarmen's experience as a Press intern in the Fall 2022 issue of *The Latinamericanist*.

MARKETING

Emily Fundora
BA in Public Relations

Jim Gillespie
PhD in Philosophy
"This internship helped me begin an exploration into nonacademic career paths. Not only did I learn how to perform specific tasks related to the Marketing Department at the Press but I learned about other dimensions of the publication world. I think this information is invaluable to my possible future: it both showed that this option is attractive and revealed that I feel that this work is important and rewarding."

Ivette Rodriguez
PhD in English
"Academic publishing combines many of my interests and passions—books, of course, but also being part of a team of colleagues that share similar ideals about amplifying diverse voices and areas of study. I am grateful I had this opportunity to learn about the industry, fall in love with it, and gain so many practical skills that have already proven useful in my professional pursuits."

*Position funded by the NEH SHARP grant.

AWARD WINNERS AND FINALISTS

Suzan Alteri: ***B is for Baldwin*** (UF Press)
2022 Florida Book Awards—Visual Arts, Silver Medal

Sandro R. Barros, Rafael Ocasio, and Angela L. Willis: ***The Dissidence of Reinaldo Arenas*** (UF Press)
American Educational Research Association Division B (Curriculum Studies) Outstanding Book Award

Austin J. Bell (UF, MA 2012): ***The Nine Lives of Florida's Famous Key Marco Cat*** (UPF)
Florida Trust for Historic Preservation Award for Meritorious Achievement in Preservation Communications
Southern Anthropological Society James Mooney Award—Honorable Mention

Judith A. Bense (UWF): ***Presidios of Spanish West Florida*** (UF Press)
Southern Anthropological Society James Mooney Award

Takkara K. Brunson: ***Black Women, Citizenship, and the Making of Modern Cuba*** (UF Press)
Association of Black Women Historians Letitia Woods Brown Book Prize

Mauro José Caraccioli: ***Writing the New World*** (UF Press)
International Studies Association Theory Section Prize for Best Book in International Relations Theory

Michael D. Carrasco (FSU), Angélica Cibrián-Jaramillo, Mark A. Bonta, and Joshua D. Englehardt (FSU, PhD 2011): ***Under the Shade of Thipaak*** (UPF)
Society for Ethnobotany Daniel F. Austin Award

Florida Museum of Natural History: ***All Things Beautiful***
Distributed on behalf of the Florida Museum of Natural History
2022 Florida Book Awards—Visual Arts, Gold Medal
Indigo Design Awards Gold Winner in Book Design for Graphic Design

Deanna M. Gillespie: ***The Citizenship Education Program and Black Women's Political Culture*** (UPF)
Benjamin L. Hooks Institute Hooks National Book Award—Finalist
Southern Association for Women Historians Julia Cherry Spruill Prize

Lindsay Guarino, Carlos R. A. Jones, and Wendy Oliver: ***Rooted Jazz Dance*** (UPF)
National Dance Education Organization Ruth Lovell Murray Book Award
UNCG | Susan W. Stinson Book Award for Dance Education

Clay Henderson: ***Forces of Nature*** (UPF)
Florida Historical Society Stetson Kennedy Award

Andrew T. Huse (**USF**), Bárbara C. Cruz (**USF**), and Jeff Houck (**UF**, BS 1989): ***The Cuban Sandwich*** (**UPF**)
2022 Florida Book Awards—Cooking, Gold Medal
Creative Loafing Tampa Bay Best of the Bay Awards, "Best Approach to Pressing Matters"

Cathleen S. Lewis: ***Cosmonaut*** (**UF Press**)
American Institute of Aeronautics and Astronautics History Manuscript Award

John T. Maddox IV and Thomas M. Stephens: ***Dictionary of Latin American Identities*** (**UF Press**)
Choice Outstanding Academic Title

Bill Maxwell: ***Maximum Vantage*** (**UPF**)
2022 Florida Book Awards—Florida Nonfiction, Silver Medal

Gary R. Mormino (**USF**): ***Dreams in the New Century*** (**UPF**)
2022 Florida Book Awards—Florida Nonfiction, Gold Medal
Florida Historical Society Charlton Tebeau Award

David Powell (**FSU**, JD 1986): ***Ninety Miles and a Lifetime Away*** (**UF Press**)
Florida Historical Society Samuel Proctor Award

Katalin Franciska Rac and Lenny A. Ureña Valerio: ***Jewish Experiences across the Americas*** (**UF Press**)
Latin American Jewish Studies Association Best Edited Volume

Rodger L. Tarr, Brent E. Kinser, and Florence M. Turcotte (**UF**): ***Marge and Julia*** (**UPF**)
Florida Historical Society Rembert W. Patrick Award

HIGHLIGHTS OF FY 2023

Generated more than $1.8 million in book sales and an additional $365,769 in journals and other revenue.

Direct-to-Consumer (D2C) website sales were $128,228—lower than the pandemic years but still higher than pre-pandemic years—indicating steady and consistent growth despite factors that would otherwise depress e-commerce sales, like necessary increases to shipping and handling charges.

The marketing department continues to invest in building our in-house subscriber list, which is currently 9,702 unique and active subscribers.

Completed our National Endowment for the Humanities–funded program, "Exploring Diverse Stories of America through Humanities Publishing," part of the Sustaining the Humanities through the American Rescue Plan (SHARP). Award amount totaled $460,260—inclusive of indirect costs—across FY 2022 and 2023.

Acquisitions editors secured $17,150 in individual title subsidies.

Established a copublication partnership with Florida Humanities that works to promote humanities titles across the state and helps to offset some of the cost of these titles. The first title published through this partnership is *Good Day Sunshine State: How the Beatles Rocked Florida* by Bob Kealing.

Published 52 new titles, converted 40 titles to paperback, and reprinted 42 perennial sellers from our backlist. This equates to more than 400 distinct products created by the production department, including digital formats for retail and library and various aggregator platforms.

Processed 425 book reviews and mentions of University Press of Florida and UF Press titles and authors from international, national, and regional publications, including the *New York Times*, *Wall Street Journal*, *Washington Post*, *Economist*, *Chronicle of Higher Education*, *Rolling Stone*, *Southern Living*, *Garden & Gun*, CNN, BBC, NPR, PBS, Heritage Radio Network, Fodor's Travel, *Miami Herald*, *Orlando Sentinel*, *Tampa Bay Times*, *Philadelphia Inquirer*, *Local Palate*, National Space Society, *Dance Magazine*, *Journal of Anthropological Research*, *Hispanic American Historical Review*, *American Antiquity*, and many more.

The acquisitions and marketing departments returned to in-person conferences and exhibits, representing University Press of Florida and UF Press at 16 in-person conferences and 2 virtual conferences. In addition, University Press of Florida and UF Press titles were promoted at 11 conferences the Press was unable to attend. Exhibit sales for the fiscal year totaled $46,681—a 9.5% increase from last year.

In the wake of pandemic shutdowns, the marketing department revamped its exhibit and conference "kit," as well as our conference sales strategy. The Press now only sends display

copies to academic conferences and encourages the use of our discounted shipping. This has reduced the cost of freight and drayage for conferences.

Contracted with new sales representation in Latin America and the Caribbean in November 2022 and are already seeing new sales generated in this difficult-to-penetrate market. Our new representation also works with University of Chicago Press, University of London Press, and University of Texas Press, among others.

International sales representatives displayed University Press of Florida and UF Press titles at three major international book fairs: The 2022 Guadalajara Book Fair in Mexico, the 2023 New Delhi World Book Fair in India, and the 2023 Beijing International Book Fair in China.

University Press of Florida and UF Press authors participated in 139 events organized or facilitated by the marketing department. Authors presented at bookstores, libraries, and other venues across the country, including the Harvey B. Gantt Center (NC), Skye Ballet Center (VA), the National Park Service's Preserving the Race for Space Symposium (Cape Canaveral), Mary McLeod Bethune Council House (DC), NASA History Department, Smithsonian Institution, Delta Sigma Theta Sorority, Inc., Books & Books, and Tombolo Books.

Social media followers and engagement across all platforms averaged a 5% increase over the previous fiscal year, despite the tumult and exodus of scholars from Twitter—the platform with some of our highest engagement.

The marketing and acquisitions departments continue to create video content for the Press's YouTube channel, including book launches and trailers.

Updated marketing's author questionnaire to better reflect current marketing practices, better inform authors about the marketing process, and prepare the groundwork for the collaborative process of marketing a book.

For the second year in a row, provided paid internships (as opposed to our previous *unpaid* internships), hosting students from UF's African American Studies Program, UF's Center for Latin American Studies, and the College of Liberal Arts and Sciences.

Planned and implemented the Press's first fundraising campaign for the University of Florida's annual Gator Nation Giving Day. The Giving Day campaign resulted in gifts of almost $2,000 and opened the door for future fundraising activities through UF Foundation.

Through a gift from a generous author, established a paid internship position in the acquisitions and editorial and production departments. This internship will start Fall 2023 and will be funded for several years to come.

Filled a vacant position in the acquisitions department with the hire of Janie Chan as associate editor for natural history, gardening, sustainability, and environmental studies.

Filled a vacant position in the marketing department with the hire of Karina Tamayo as publicity assistant.

Established two new book series with the aim of expanding our offerings in Caribbean history and South American archaeology:

- **Caribbean Crossroads: Race, Identity, and Freedom Struggles**, edited by Lillian Guerra (**University of Florida**), Devyn Spence Benson (University of Kentucky); April Mayes (Pomona College), and Solsiree del Moral (Amherst College);
- **Archaeology of South America**, edited by Gabriel Prieto (**University of Florida**), Sonia Alconini (University of Virginia), and Eduardo Góes Neves (University of São Paulo).

All editorial, design, and production staff completed 18 hours of training for the new software, Scribe Well-Formed Document Workflow (WFDW), simultaneously creating and implementing new departmental workflows as part of onboarding the software.

One of the Press's two designers retired after 35 years of service at UF, and, because of efficiencies gained through the implementation of Scribe WFDW, the Press did not need to fill this position with another full-time designer. Instead, the Press created a part-time production assistant position that will work closely with Scribe WFDW.

Updated the budgeting template for Publication Services to more accurately reflect overhead expenses and estimate costs, while building in discounts for clients within the State University System.

Streamlined the yearly inventory process that required our warehouse to close down and disrupted shipping for one week at the end of the fiscal year. The new workflow will maintain an accurate count of stock while significantly reducing the amount of time the entire process takes. Shipping will be disrupted for only one or two days.

Subsidiary rights generated $13,689 and permission fees generated another $6,330.

Licensed three translations:

- *Being a Ballerina: The Power and Perfection of a Dancing Life* by Gavin Larsen into Korean;
- *Teaching Classical Ballet* by John White into Korean;
- *Emma Darwin: A Victorian Life* by James D. Loy and Kent M. Loy into simplified Chinese.

Licensed and promoted six audiobooks for:

- *The History of Florida* by Michael Gannon (**UF**);
- *Play All Night: Duane Allman and the Journey to Fillmore East* by Bob Beatty (**UCF**, MA 2002);
- *The Valkyrie's Loom: Archaeology of Cloth Production and Female Power in the North Atlantic* by Michèle Hayeur Smith;
- *The Cuban Sandwich: A History in Layers* by Andrew T. Huse (**USF**), Bárbara C. Cruz (**USF**), and Jeff Houck (**UF**, BS 1989);
- *The Silencing of Ruby McCollum: Race, Class, and Gender in the South* by Tammy Evans;
- *Slave Breeding: Sex, Violence, and Memory in African American History* by Gregory D. Smithers.

JOURNALS

Journals revenue exceeded projections by almost 13%.

Upgraded the journals website in early 2023 to implement the latest version of Open Journal Systems.

Collaborated with marketing to better integrate journals into existing book promotion efforts.

Authors contributing to some of our journals—especially the *Journal of Political & Military Sociology*—increasingly have open access funds available from their institutions and we published 4 open access articles.

Updated ethical guidelines for *Bioarchaeology International* and *Forensic Anthropology*.

Established a more formal relationship with the National Symposium on Spanish as a Heritage Language to provide discounted subscriptions to *Spanish as a Heritage Language* to NSSHL attendees, including K–12 teachers who are less likely to have the resources to purchase a subscription.

With new editors at the helms of the *Journal of Political and Military Sociology* and the *Journal of Global Postcolonial Studies* and the editors' adoption of the electronic submissions system, submissions have increased and the timeline from acceptance to publication has been reduced.

Journal of Global Postcolonial Studies is now being copyedited in-house as a cost-saving measure and as a way to keep journals staff sharp on editing skills.

Subtropics: The Literary Journal of the University of Florida was switched to a digital printer, as opposed to the more costly offset printer used previously. This allows for an eventual move to a zero-inventory model, like our other journals.

Began participating in Project Muse's program for low-income countries, granting IP-based country-wide access to the lowest income countries, including Burkina Faso, Burundi, Central African Republic, Chad, Congo, Democratic Republic of Congo, Eritrea, Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Nigeria, Somalia, South Sudan, Sudan, Togo, and Yemen.

STAFF ACCOMPLISHMENTS

Staff installed a Free Little Library at the Repurpose Project in Gainesville. The library is stocked with returned copies that are damaged and unsalable and would otherwise be recycled.

Barbara Byers was promoted to full-time Customer Service Representative.

Carlynn Crosby presented on the work of book publishing at a St. Petersburg high school as part of the National Education Association's American Education Week.

Rachel Doll completed Managing at UF: The Supervisory Challenge.

Jenna Kolesari was promoted to Academic Promotions Manager in the marketing department with responsibilities to expand promotion of the Press's journals program.

Mary Puckett continued to serve as cochair of the Equity and Inclusion committee and Milo Brooks joined her as cochair.

SUMMARY

To start FY 2023, the Press had projected a deficit of $56,952. This projection was based on an expected decrease in title count as the books that would have published in the fiscal year were delayed by peer reviewers submitting reports late and authors delivering manuscripts behind schedule. The reasons for the delays were pandemic-related or pandemic-adjacent, such as shutdowns disrupting home or work or affecting access to archives or fieldwork. Another contributing factor to the decreased title count is understaffing in acquisitions since the retirement of a senior editor during the pandemic—a position that was replaced only in July 2022 in efforts to refill the book pipeline.

However, the Press not only made up this deficit throughout the year but also ended the fiscal year with a small surplus of $26,753. Although it is not as large a surplus as at the end of FY 2022 ($380,022), it is the second year in a row the Press has finished the year with a surplus. Prior to FY2022, the last surplus year occurred in 2016.

While FY 2022's surplus was due to increased sales and a grant from the National Endowment for the Humanities (NEH), FY 2023's surplus cannot be attributed to an increase in sales but to strategic budgeting, a no-cost extension on the NEH grant, and delayed implementation of major software.

The Press had projected sales of $1,936,936 for FY 2023 and we achieved 95% of that, with $1,845,641 in book sales proceeds. This 5% difference is, in part, attributable to the slowdown of reader reports and author manuscript delivery, which has not yet completely abated to the extent editors had expected and is discussed later in this Summary.

The lower-than-projected sales can also be attributed to a shift in purchasing patterns: online sales were lower than in the first two years of the pandemic. After a strong sales year in FY 2022, sales to Amazon in the first four months of the fiscal year were significantly lower than normal as the online giant—and the Press's largest customer—adjusted its inventory levels. Publishers across the industry reported a drop in Amazon orders around the same time that the retail behemoth was losing about a trillion dollars in market value and planning to lay off more than 10,000 employees. Although orders picked up again in November and the Press had a strong holiday season, this was insufficient to reach our original projection and the management team reassessed the budget, making fiscally responsible and strategic cuts to expenses. Additionally, sales through our library channels continue to decline, reflecting the years-long downward trend in purchases of print books by libraries.

There has been a noticeable increase in sales to Barnes & Noble, potentially because of structural changes made by their new CEO, which include reconfiguring bookstore spaces and allowing local store managers more say over what books they stock. This is promising news for the Press's regional and general interest titles.

Additionally, due to careful inventory controls and an agile production department making the most use of print-on-demand, the Press continues to see low return numbers, with a return rate of 11.8% that is nearly half the industry average. This means we are accurately

projecting demand for titles and reducing the amount of unsalable, damaged books returned to our warehouse.

Revenue from journals exceeded projections by almost 13%.

For FY 2024, the Press projects a deficit of $98,515, which will be offset by the FY 2022 and 2023 surpluses and strategic cost-control measures throughout the year. The deficit is attributed to a 6% decrease in projected book sales due to a reduced number of titles scheduled to publish. This reduction in titles published is a result of delays in reader reports and author manuscript delivery during the pandemic, as well as staffing vacancies in the acquisitions department during the same period. A cooling print and digital market in the wake of the pandemic is also depressing the sales projection while inflation has increased cost of goods by almost 20%.

INDUSTRY TRENDS AND THE STATE OF SCHOLARLY PUBLISHING

INFLATION AND THE COST OF GOODS AND LABOR

The publishing industry continues to be rocked by inflation affecting manufacturing inputs and the cost of labor. The past two years have seen a nearly 20% increase in the cost of manufacturing due to increases in the cost of paper, ink, glue, cartons/boxes, etc. This is coupled with increases in fuel, freight, and shipping. As an example, at the beginning of 2023, the Press's cost to ship one book—a direct-to-customer website sale—to Rhode Island was $19, in part because of additional fees added to residential addresses. This is *with* the UF-negotiated FedEx contract rate. For comparison, a similar shipment would have cost less than $10 just a few years ago. It is virtually impossible to compete with Amazon Prime at these rates, regardless of how generous the marketing department's promotional discounts might be.

These increases are also affecting the few journals that still have significant print components, such as *Subtropics: The Literary Journal of the University of Florida*.

The cost of labor is also increasing as companies around the world, but especially in the US, respond to staffing shortages and workers demand better pay in the face of inflation. Freelance copyeditors are increasing their rates, as is UF Technical Support.

While increased demand for books during the pandemic mitigated these impacts early on, now that the industry is seeing a decline in demand from the pandemic peak those mitigating effects are insufficient to shield publishers from increased costs.

Publishing has always been a business of thin margins for bookstores and publishers alike, with perhaps the dubious exceptions of for-profit educational publishers, such as Elsevier and Springer. Because university press publishing promotes regional topics that may not have wide audiences but are critically important to local communities, and because we publish scholarly monographs and edited volumes of groundbreaking research in the humanities and social sciences that might not sell outside of research libraries, our margins are

thinner than most other publishers. Moreover, the quality of a university press, the inherent value of the University Press of Florida and University of Florida Press imprints, cannot be compromised in cost-cutting efforts. While the Press may find ways to reduce spending on paper or cut our print advertising budget, we cannot sacrifice the Florida brand. Thus, the Press has made the difficult decision to increase list prices on both our scholarly and general interest titles in digital and print. These price increases are being implemented incrementally so as to not further affect demand, but they reflect the top-tier quality that goes into our rigorous peer review and manuscript development process, our thorough copyediting and thoughtful book designs, our marketing efforts that consistently punch above their weight, and our attentive customer service.

These price increases will mitigate some of our increased manufacturing and shipping costs, but they will be insufficient to allow the Press to address its own costs of labor. Each budget year the Press's management team attempts to keep staff salaries in line with the Compensation Survey issued yearly by the Association of University Presses (AUP), which takes into account, among other things, the impact of geographic location on wage levels and whether or not a university press reports to a public or private institution. While the Press's goal is to ensure staff salaries remain in the median range of comparable university presses, in recent years staff salaries have stagnated, especially as inflation outpaces raises, and we are perilously close to seeing salaries drop below the 25th percentile. Stagnant wages endanger the stability of the Press's workforce, a highly skilled and trained team with decades of experience in each department. Stagnant wages are also particularly damaging to the motivated, innovative, and resourceful junior staff who are the future of the Press, as well as to any future hiring efforts.

The additional funding the Press has received from the Council of Academic Vice Presidents (CAVP) since FY 2017 has significantly reduced the aforementioned inflationary pressures, and the Press would not be as successful as we are today without such generous support. To sustain a dedicated and thriving workforce that can continue to provide Florida brand quality for the State University System's publishing program, the state appropriation of $540,042—which has not increased since 1991 but has instead been reduced over the years—must be addressed. This is understandably a long-term process that will require support from multiple stakeholders, including the CAVP, the faculty editorial boards, and Press authors, as well as concerted efforts from the Press to continue to demonstrate the value add of a university press and the critical importance of a university press to a state university system, especially the state's *only* university press.

However, in the short-term, the Press is looking to mitigate the effects of inflation through small but compounding efforts, including:

- Reducing manufacturing and editorial and production costs by continuing to maximize print-on-demand, limiting color printing to strategic projects or projects that have third-party funding, and carefully controlling manuscript word count;
- Maximizing revenue from the existing IP in our catalog through permissions fees and subsidiary rights, including digitizing backlist and licensing audiobooks;

- Developing innovative funding strategies like the Royalty Giveback program implemented four years ago, increasing efforts to locate individual title subsidies, and creating a dedicated advancement taskforce;
- Continuing to find efficiencies in workflows to publish more titles without adding staff and expanding publishing areas that historically sell better, such as space studies, natural history, and regional interest titles;
- Once again increasing domestic and international shipping rates and reducing promotional shipping rates;
- And, as already mentioned, increasing list prices across the board and reducing the amount of promotional discounts offered.

OPEN ACCESS AND THE HUMANITIES

The push toward open access has long been a topic of discussion in publishing, embraced most often by STEM publishers, who can and do charge sometimes hefty article processing charges (APCs). While open access had long remained the realm of journals, especially STEM journals, the last decade has seen an increased drive toward open access in the humanities and social sciences (HSS), where—as discussed earlier—margins are even thinner and the erosion of sales caused by open access can devastate some publishers. While sentiments on open access are varied in HSS, especially when applying for tenure and promotion in certain disciplines, the major hurdle to open access implementation for HSS authors and publishers is the vast difference in funding for STEM research and publishing versus HSS research and publishing. This hurdle became more complicated with the release in August 2022 of the "Nelson Memo" by the White House Office of Science and Technology Policy, which is in a similar vein to Europe's Plan S.

For nearly a decade, the Press has worked within its fiscal limits to embrace open access when and where appropriate, including a grant-funded partnership in 2018 with UF's George A. Smathers Libraries to digitize and open nearly 50 titles from the Press's backlist in Florida and the Caribbean. Over the last few years, the Press has also received individual title subsidies from programs like Toward an Open Monograph Ecosystem or agencies like the Swiss National Science Foundation to offset the costs of producing open access monographs.

This fiscal year the Press joined more than 30 other university presses—including Liverpool University Press, University of Michigan Press, University of North Carolina Press, and University of Wisconsin Press—in Path to Open. A partnership by the American Council of Learned Societies and ITHAKA's JSTOR, Path to Open promises to "bring about equitable access and impact for the entire scholarly community" and offers a funding model that will "provide libraries with affordable access to diverse, high-quality frontlist titles; support small and medium university presses in open access publishing; help authors reach a global audience; and advance equity of access to underserved researchers around the world." The first round of this pilot program will feature three titles from the Press catalog, with three to five titles added to the program each year for at least the first three years of the pilot.

These efforts are not enough to keep up with demand from scholars to make their books open access, especially in disciplines such as Latin American and Caribbean studies, where the research is often about communities and peoples with limited access to books priced for the American, Canadian, and European markets. Lacking state or institutional support to make *all* of our titles open, the Press is prioritizing titles like our forthcoming *Lacandón Maya in the Twenty-First Century: Indigenous Knowledge and Conservation in Mexico's Tropical Rainforest* for programs like Path to Open, where adequate funding is baked into the model.

For other titles, the Press has developed a tiered system, similar to APCs, where authors with third-party funding can open their titles upon publication ($12,000), one year after publication ($8,000), or three years after publication ($5,000). The Press also works closely with these authors to provide any necessary materials and applications to ensure receipt of these funds. These tiers are based on comparable funding scales, projected erosion of sales at the various time tables, and studies such as The Cost of Publishing Monographs: Toward a Transparent Methodology.

All of these efforts to join pilot programs and to partner with various agencies and institutions for funding means that each of these book projects and its open access requirements are unique. This in turn creates inefficiencies at various stages of the book's life cycle because a Press creates efficiencies through replicable workflows, especially in production and metadata practices. Most funders, publishers, libraries, vendors, and metadata distribution platforms do not yet have established systems, processes, or workflows for the additional requirements open access places on production and metadata handling. However, despite these inefficiencies in Open Access models, the Press continues to pursue these efforts and we will continue to experiment when models are deemed sustainable in order to advance the mission of the State University System and disseminate the scholarly and creative output of our authors as widely and as equitably as possible. Additionally, these current efforts will better position the Press for future developments in open access publishing and positive engagement now will allow us to adapt down the road.

MEETING THE NEEDS OF TODAY'S SCHOLARS AND AUTHORS

Scholars today are much more involved in and inquisitive about the publishing process, which is encouraging for university presses who take special care in helping authors with their publishing-related questions. In addition to questions about open access, scholars are increasingly scrutinizing other publishing practices like pricing models that "embargo" affordable paperbacks for a few years while publishers try to meet their margins with library-priced hardbacks and digital editions. While this is often one of the few ways a title's P&L will "work" for a university press, it does mean that affordability for individuals is sacrificed the first few years after initial publication. This is acceptable in some disciplines, but it is increasingly becoming a negotiation point for many scholars in African American studies and Latin American and Caribbean studies—two of our core publishing areas—as well as in Indigenous archaeology—a subfield of another core publishing area.

To remain competitive against our peer publishers in these disciplines, the Press has for several years been negotiating simultaneous publication—that is, hardback and paperback

editions releasing at the same time—on a case-by-case basis and almost exclusively when the author has access to a third-party subsidy. The NEH SHARP grant provided the opportunity for the Press to publish all African American studies and Latin American and Caribbean studies approved by the faculty editorial boards during the period of performance as simultaneous editions. Several of these authors have confirmed with our editors that they would not have published with the Press if the simultaneous edition was not an option.

Moving forward without the NEH grant, the Press is still committed to publishing simultaneous editions in these areas as an equitable publishing practice. We will carefully monitor the sustainability of this model, but we are confident that it will provide a competitive advantage in our acquisition of new titles and thus help us achieve our goal of increasing the number of titles published per year.

Another growing challenge in acquisitions—and journals—is the overstretched peer reviewer. Increasingly since the end of the pandemic, peer reviewers express being too busy to read a manuscript or article. More than a few times, editors have found themselves with a peer reviewer who promises to deliver a report but misses extended deadlines. Editors—including those at other university presses—are being told by scholars that they simply cannot prioritize peer reviewing someone else's work because it is unacknowledged labor that will have little to no impact on tenure or promotion.

The Press acknowledges the frustration of these scholars, but the peer review system is unsustainable without widespread commitment. In the past year, acquisitions editors have broadened their scope when querying peer reviewers, oftentimes querying two and three times the number of scholars they would have queried before securing reviewers five years ago. Editors have also developed innovative ways of working with reviewers. For example, allowing junior and senior scholars to collaborate jointly on one report reduces the burden for both and allows for a beneficial mix of fresh and experienced perspectives. Editors are also incorporating larger discussions about the mutual benefits of the peer review process when giving presentations on the "nuts and bolts" of publishing. Additionally, the reviewer report template was updated to reduce redundant questions and provide clear and simple instructions for peer reviewers to provide constructive reports.

With these small but significant efforts, the Press hopes to encourage readers to submit reports on more reliable timelines and reduce delays in peer review that are contributing to lower title counts.

MODERNIZATION AND ACCESSIBILITY

Press goals for FY 2023 included implementing Naviga Book and Scribe Well-Formed Document Workflow (Scribe WFDW), two pieces of software that will streamline and improve processes in the business department and in the editorial, design, and production (EDP) department.

The EDP department completed training on the cloud-based Scribe WFDW, which will simplify and reduce the time to typeset monographs, as well as reduce the cost of converting

ebooks by allowing us to handle the conversion in-house. Scribe WFDW also provides advanced tools that allow production editors to create embedded indexes and ebooks with greater accessibility for those with visual disabilities.

Acquisitions editors are also working closely with authors to impress the importance of accessibility and embedding the necessary components—like alternative text ("alt-text") for all illustrations, maps, graphs, etc.—in the manuscript process as early as possible. Acquisition editors and production editors collaborated to create new guidelines and instructions and develop an accessibility resource bank for authors.

The second software, Naviga Book, is intended to replace our existing publisher software, the CAT's Pajamas. The CAT is the central software for all of the Press's order fulfillment, inventory tracking and transactions (including warehouse coordinates), royalty tracking, and sales reporting. The CAT, however, was coded in 1985, still runs on an MS-DOS interface, and is testament to how frugal the Press has been over the years. Unfortunately, after almost four decades, the CAT's parent company, Naviga, will soon cease support, and the CAT will not operate with the next version of Windows. As such, the Press must transition to an alternative software. After exploring several options, we determined that Naviga Book—the successor to the CAT—is the least cost prohibitive while still providing all of the features and functionality the Press needs. It will provide the Press with tools the CAT does not have, and with those tools we will be able to implement new procedures and workflows that will streamline order fulfillment, allow us to email royalty statements in batches, and provide improved sales reporting.

Unfortunately, Naviga had to delay our implementation due to staff turnover and delays with another client. The delay partly contributed to this fiscal year's surplus as the Press does not pay the subscription fees until we are running live. We are currently working with Naviga to finalize exactly when implementation will begin.

NATIONAL ENDOWMENT FOR THE HUMANITIES, SUSTAINING THE HUMANITIES THROUGH THE AMERICAN RESCUE PLAN (SHARP)

In October 2021, the Press received its single largest grant ever, totaling $460,260—inclusive of indirect costs—across FY 2022 and 2023. Completed this fiscal year, the grant supported the Press's project "Exploring Diverse Stories of America through Humanities Publishing." It enabled the Press to increase its capacity for publishing new titles in African American studies (AAS) and Latin American and Caribbean studies (LACS), through the retention of staff and the rehiring of positions lost during the pandemic. Through the project, the Press was also able to convert backlist titles in these disciplines into digital and paperback formats; create a webinar series to discuss topics at the intersection of AAS, LACS, and publishing in the humanities; and establish paid internships for students interested in publishing.

The grant has significantly alleviated some of the inflationary pressures discussed earlier in this Summary and allowed the Press to explore and innovate with models like simultaneous publishing of hardback and paperback formats, also discussed earlier. It also opened the door and helped to create a template for collaboration with UF's African American Studies

Program, the Center for Latin American Studies, and the Center for the Humanities and the Public Sphere to develop internship opportunities for UF students that provide professional development and support the humanities and humanistic social sciences.

At the conclusion of the grant, it has supported the signing, development, and publication of 67 new book projects in AAS and LACS, which will continue to be published in the next several fiscal years.

FY 2024 PROPOSED BUDGET AND NOTES

REVENUE	Budgeted FY 2023	Actual FY 2023	Proposed Budget FY 2024
State Support	$ 540,042	$ 540,042	$ 540,042
CAVP Additional Funding *(extended through FY26)*	$ 250,000	$ 250,000	$ 250,000
UF Press Additional Funding	$ 150,000	$ 150,000	$ 150,000
Interest	$ 1,000	$ 14,716	$ 24,000
Book Sales Proceeds	$ 1,936,936	$ 1,845,641	$ 1,737,717
Postage Charged to Customers	$ 25,000	$ 25,669	$ 25,000
Journals	$ 86,665	$ 97,722	$ 97,298
Permission & Subsidiary Rights Fees	$ 69,000	$ 71,133	$ 70,000
Subsidies/Publication Services/Other	$ 150,000	$ 171,245	$ 150,000
Total Revenue	**$ 3,208,643**	**$ 3,166,168**	**$ 3,044,057**
EXPENSES			
Production Costs for Books	$ 499,729	$ 551,956	$ 469,184
Royalties Paid to Authors	$ 189,820	$ 185,862	$ 180,723
Depreciation	$ 2,536	$ 4,572	$ 3,500
Director's Office & Subsidiary Rights	$ 230,325	$ 227,795	$ 251,979
Finance	$ 41,946	$ 35,379	$ 38,705
Business	$ 137,166	$ 128,681	$ 136,996
Warehouse	$ 321,597	$ 337,168	$ 349,046
Technology Support & Software	$ 197,207	$ 110,603	$ 103,814
Acquisitions	$ 358,156	$ 323,483	$ 417,831
Journals	$ 170,841	$ 179,021	$ 187,053
Editorial	$ 319,562	$ 293,163	$ 239,016
Production	$ 166,493	$ 172,736	$ 172,224
Design	$ 196,349	$ 185,986	$ 164,709
Marketing	$ 343,869	$ 287,881	$ 337,794
Subsidies/Publication Services/Other	$ 90,000	$ 115,128	$ 90,000
Total Expenses	**$ 3,265,595**	**$ 3,139,415**	**$ 3,142,572**
OPERATING SURPLUS/(DEFICIT)	**$ (56,952)**	**$ 26,753**	**$ (98,515)**

BUDGET NOTES

Although, the Press projected a small deficit in FY 2023—attributed to a one-time payment ($50,000) for new accounting/order entry/royalty software—we ended the year with a small surplus of $26,753. This surplus will be used to offset the projected deficit for FY 2024 (-$98,515), which will be further offset by the FY 2022 surplus created by sales that exceeded projections and the NEH SHARP grant.

Several factors contributed to lower book sales than budgeted for FY 2023:

- Unexpectedly weak Amazon sales in Q1 and the beginning of Q2, reported by publishers across the industry;
- Continued decline in print purchasing by libraries;
- Return to pre-pandemic levels of digital purchasing by libraries;
- Decline in backlist sales as online retail cooled to pre-pandemic levels.

BUDGET NOTES—*Continued*

The 6% decrease in projected book sales for FY 2024 ($1,737,717) is due to:

- The reduced number of titles the Press projects to publish due to delays in reader reports and author manuscript delivery during the pandemic;
- Cooling of the print and digital market post-pandemic.

In FY 2023, several expense lines (Director's Office, Acquisitions, Production, and Marketing) reflected artificially low salaries, as these were partially covered by the NEH SHARP grant in FYs 2022 and 2023. In FY 2024, these expense lines are no longer offset by the grant.

FY 2024 assumes an average 3% salary increase to meritorious staff, which is often proposed by the University of Florida each year but, at this time, has not been finalized.

Staff salaries and fringe, allocated within each department line, amount to $1,725,823 (or 55%) of total expenses; fringe accounts for 28% of that at $482,180.

The 10% increase in Production Costs for Books ($551,956) from what was originally budgeted for FY 2023 reflects the drastic increases to paper, printing, manufacturing, and freight costs that began in 2020 as global supply and demand—for paper, glue, and workers—was affected by the pandemic. Consolidation of printers and closures of paper mills further increased prices through FY 2023, and while the rate of increase has slowed, inflation will continue to apply upward pressure to the cost of book production and freight through FY 2024.

The FY 2024 decreases in Editorial and Production costs are due to a projected reduction in the number of titles in copyediting and going to print.

The increase in the Warehouse line reflects continued increases in freight rates.

Acquisitions expenses in FY 2023 were artificially low due to the NEH grant covering 2 FTE. The FY 2024 increase in Acquisitions reflects the hire of an associate editor at the start of FY 2023 with the goal of increasing number of titles published per year. As the grant is concluded, this position is funded with the FY 2022 surplus (as noted in last year's annual report) through FY 2024 until this new position is generating additional revenue through increased title output.

The FY 2024 decrease in Design reflects the Press's decision not to replace our in-house typesetter when she retired after 35 years of service. These duties will be absorbed by the art director, and a new part-time staff member was added in Production. Additionally, Editorial, Design, and Production have gained efficiencies with the use of new software (Scribe Well-Formed Document Workflow), the cost of which is captured in the Production line.

Technology Support & Software is artificially low because the implementation of Naviga Book (replacing the current fulfillment/inventory/sales/royalty software, the CAT's Pajamas) has been delayed by the software company, and our monthly software-as-a-service payments are unlikely to start until nearly the end of FY 2024.

Not included in this budget are gifts and funds held at UF Foundation.

FY 2024 GOALS

Continue to build on the Press's national and international reputation by acquiring meritorious projects for the University Press of Florida and UF Press imprints and promoting these projects to broad audiences.

Meet or exceed the sales projection of $1,737,717.

65 new titles approved by the faculty editorial boards and transmitted into editorial and production.

Increase acquisitions in high-performing trade ("general interest") titles, especially in space studies, gardening, natural history, and Florida history, culture, music, and foodways.

Continue to grow our long-running and prestigious dances studies list.

Continue building the African American studies and Latin American and Caribbean studies lists, publishing the majority of these books simultaneously in library hardbacks, affordable paperbacks, and retail ebook editions.

Expand our presence and increase our competitiveness in environmental studies and sustainability.

Develop a creative nonfiction list that will garner literary media attention as well as literary awards.

Increase efforts to research grants and other funding opportunities for all books but particularly trade books with higher costs. Aim to increase individual title subsidies by 25% to $21,500.

Create an internal advancement taskforce and begin to lay the groundwork for an external advancement board, identifying 2–3 key individuals who can form the core of the board.

Increase the participation in open access initiatives through individual project funding.

Increase subsidiary rights and permissions revenue by 10% to $22,000.

License at least three translations and five audiobooks.

Increase our direct–to–individual website sales over FY22–23 ($128,228).

Increase total exhibit sales over FY22–23 ($46,681).

Expand our B2B sales outreach, increasing our number of new accounts added over FY22–23 (79).

FY24 GOALS—*Continued*

Maintain the same annual number of reviews and mentions of titles and authors in international and national media as FY22–23 (30), while increasing efforts to pitch both trade and academic authors to major news outlets as experts on current events.

Increase number of followers on social media platforms by 4% overall over FY22–23 (11,956).

Increase total number of author events over FY22–23 (139).

Increase outreach to faculty and staff in the State University System of Florida through the creation of a dedicated stakeholders newsletter.

Continue group retrospective analyses that:

- assess title performance in order to better project for future titles;
- inform targeted attention to backlist titles, such as promotion of underperforming titles through free ebook campaigns and metadata updates.

Optimize more of our title metadata on Amazon by increasing the number of titles that receive A+ content, including both frontlist and backlist titles.

Increase visibility of the journals program by incorporating journals into appropriate book promotions.

Update submission guidelines for authors to better reflect best practices for accessibility and the creation of digital products.

Switch media database subscription from Meltwater to Cision, a platform that contains more up-to-date contact information for journalists and will better support media list-building. Cision will also be less costly than Meltwater.

Continue to provide Publication Services to museums, centers, and departments across the State University System.

Continue to support Library Press @ UF initiatives in Open Educational Resources and in the sale and distribution of their print offerings.

Increase visibility of the Press's Publication Services division to departments and libraries throughout the SUS and other government and nonprofit institutions to open up the expertise of the Press to the SUS and the state more widely.

Continue to explore new print options with new vendors, print machinery, paper stocks, binding changes, trim sizes, and cover treatments in order to reduce the cost of printing while maintaining appropriate quality.

FY24 GOALS—*Continued*

Continue to support a paid internship program through creative funding like the Royalty Giveback program.

Transition the current outdated CAT's Pajamas publishing software—used for order fulfillment, inventory and royalty tracking, and sales reporting—to Naviga Book with minimal disruption to customer orders or the royalties process. (Naviga delayed implementation in FY 2022, but the Press does not pay anything until the software is running live.)

JOURNALS

Implement the planned major upgrade for Open Journal Systems.

Update ethical guidelines for all journals, including information about the peer review process, open access fees (if applicable), and archiving permissions.

Add one new journal with an existing or developing subscription base.

ACTIVE BOOK SERIES

The Alan B. and Charna Larkin Series on the American Presidency
Edited by Stephen D. Engle (**FAU**)

The American Experience in Archaeological Perspective
Edited by Michael S. Nassaney and Krysta Ryzewski

Archaeology of South America
Edited by Gabriel Prieto (**UF**), Sonia Alconini, and Eduardo Góes Neves

Bioarchaeological Interpretations of the Human Past: Local, Regional, and Global Perspectives
Edited by Clark Spencer Larsen

Caribbean Crossroads: Race, Identity, and Freedom Struggles
Edited by Lillian Guerra (**UF**), Devyn Spence Benson, April Mayes, and Solsiree del Moral

Contested Boundaries
Edited by Gene Allen Smith

Cultural Heritage Studies
Edited by Katherine Hayes

Florida in Focus
Edited by Andrew K. Frank (**FSU**)

The Florida James Joyce Series
Edited by Sam Slote

Florida Museum of Natural History: Ripley P. Bullen Series
Edited by Neill J. Wallis (**UF**), Kitty F. Emery (**UF**), and Charles R. Cobb (**UF**)

Government and Politics in the South
Edited by Sharon D. Wright Austin (**UF**) and Angela K. Lewis-Maddox

Maya Studies
Edited by Arlen F. Chase and Diane Z. Chase

New Perspectives on Medieval Literature: Authors and Traditions
Edited by R. Barton Palmer and Tison Pugh (**UCF**)

New World Diasporas
Edited by Kevin A. Yelvington (USF)

Reframing Media, Technology, and Culture in Latin/o America
Edited by Héctor Fernández L'Hoeste and Juan Carlos Rodríguez

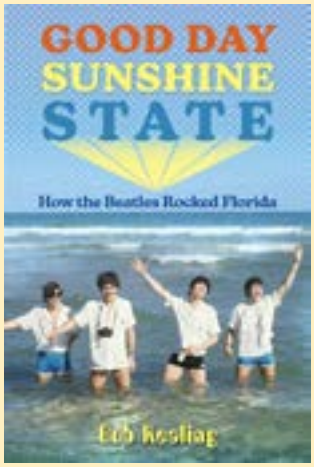
Society and Ecology in Island and Coastal Archaeology
Edited by Victor D. Thompson and Scott M. Fitzpatrick

Southern Dissent
Edited by Randall M. Miller and Stanley Harrold

Wild Florida
Edited by M. Timothy O'Keefe

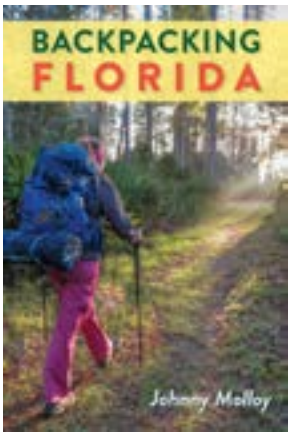
NEW TITLES PUBLISHED IN FY 2023

FLORIDA AND REGIONAL TITLES

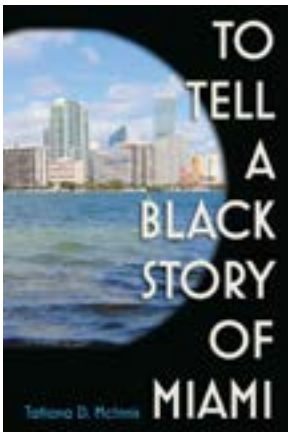


Good Day Sunshine State
How the Beatles Rocked Florida
Bob Kealing
UNIVERSITY PRESS OF FLORIDA

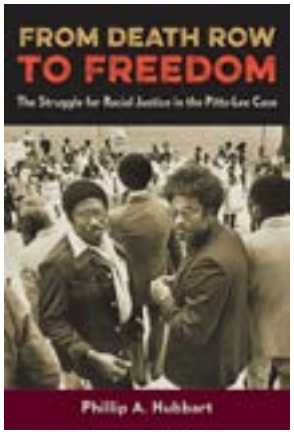
"[Kealing's] sources come from outside the Beatles camp, adjacent observers offering reflective testimony on a moment when The Beatles were not yet fully draped in myth."—***Uncut Magazine***



Backpacking Florida
Johnny Molloy
UNIVERSITY PRESS OF FLORIDA



To Tell a Black Story of Miami
Tatiana D. McInnis
UNIVERSITY PRESS OF FLORIDA

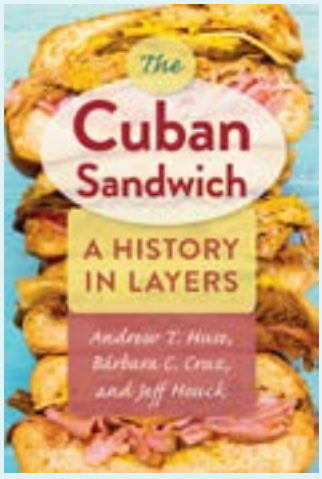


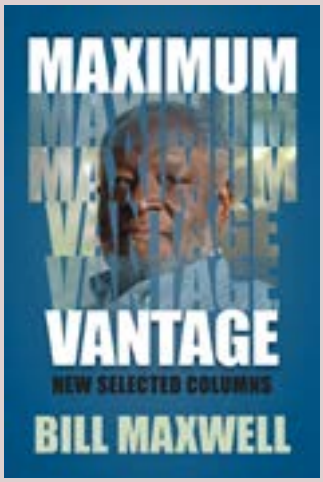
From Death Row to Freedom
The Struggle for Racial Justice in the Pitts-Lee Case
Phillip A. Hubbart
UNIVERSITY PRESS OF FLORIDA

The Cuban Sandwich
A History in Layers
Andrew T. Huse, Bárbara C. Cruz, and Jeff Houck
UNIVERSITY PRESS OF FLORIDA

"The book unpacks . . . layers of history like those of the sandwich itself . . . to understand where it came from and how it has evolved. It weaves together research and profiles of artisans who are making the sandwich in different parts of the world today."—**NPR**

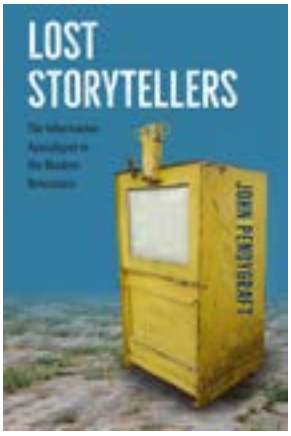
"An excellent, approachable resource on Cuban history told through the complexities of a beloved food item. Highly recommended for foodies and history buffs."
—***Library Journal,* Starred Review**



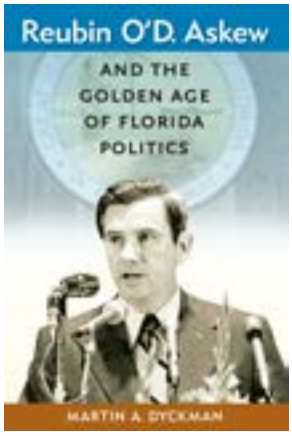


Maximum Vantage
New Selected Columns
Bill Maxwell
UNIVERSITY PRESS OF FLORIDA

"A retrospective of stellar journalism, the impactful collection Maximum Vantage tackles some of society's biggest issues with insight and incisiveness."
—***Foreword Reviews***



Lost Storytellers
The Information Apocalypse in the Modern Newsroom
John Pendygraft
UNIVERSITY PRESS OF FLORIDA

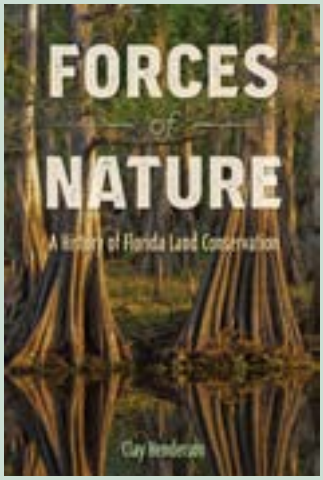


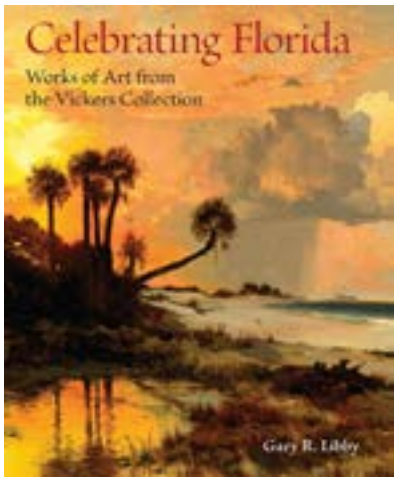
Reubin O'D. Askew and the Golden Age of Florida Politics
Martin A. Dyckman
UNIVERSITY PRESS OF FLORIDA

■ Indicates New-to-Paperback

Forces of Nature
A History of Florida Land Conservation
Clay Henderson
UNIVERSITY PRESS OF FLORIDA

"Clay Henderson [is] the undisputed expert on land conservation law in Florida."
—***Orlando Sentinel***





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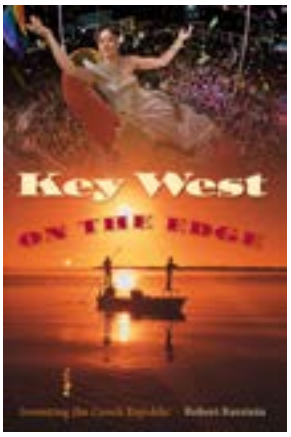

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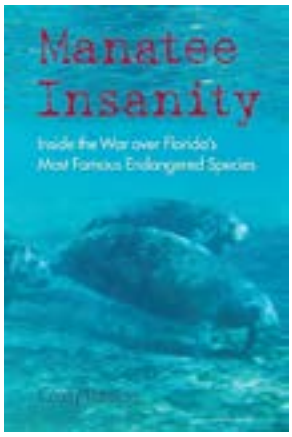

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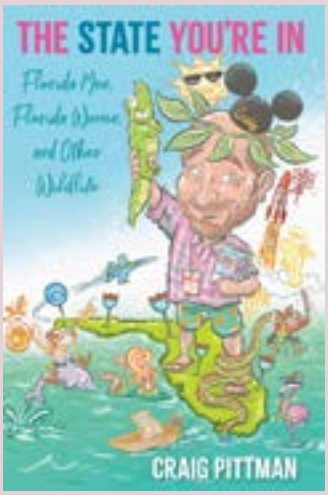

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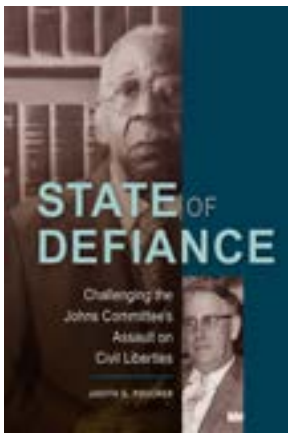

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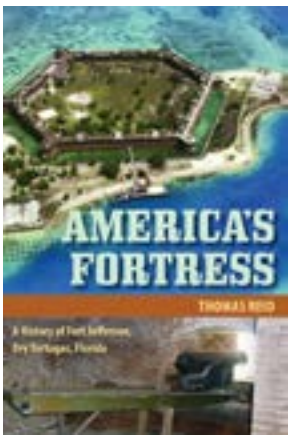

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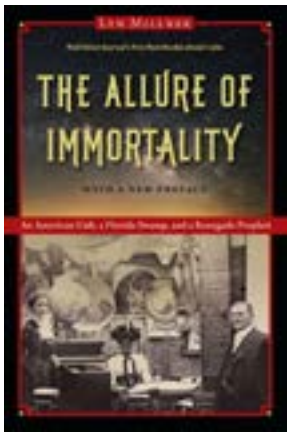

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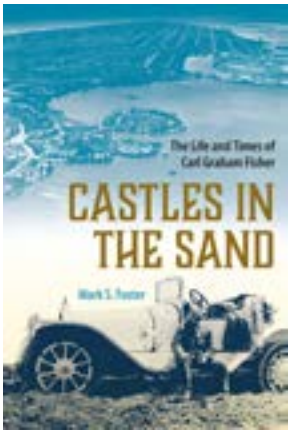

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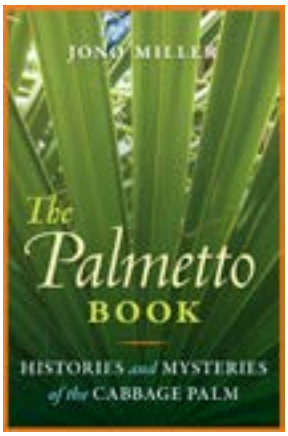

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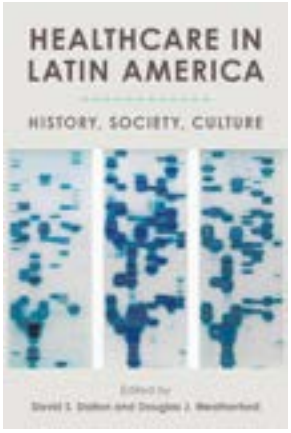

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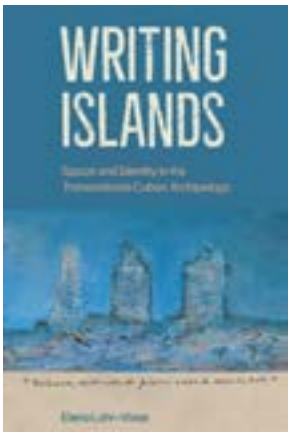

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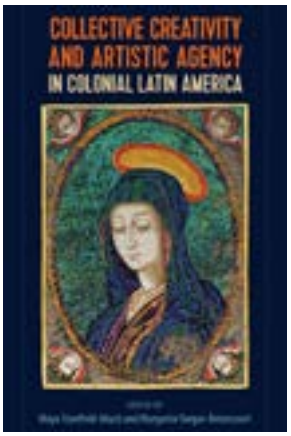

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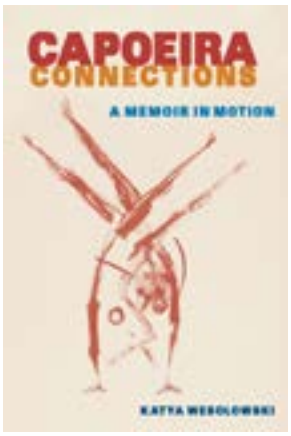

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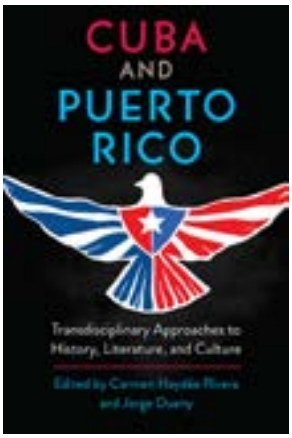

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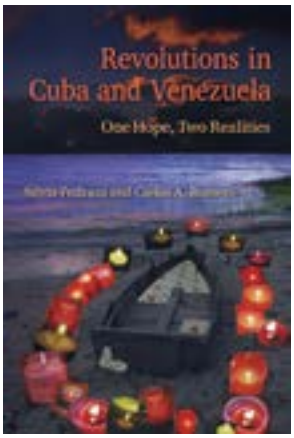

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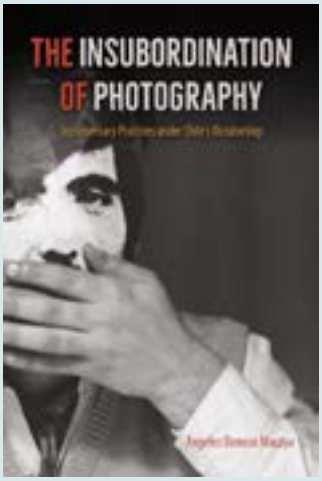

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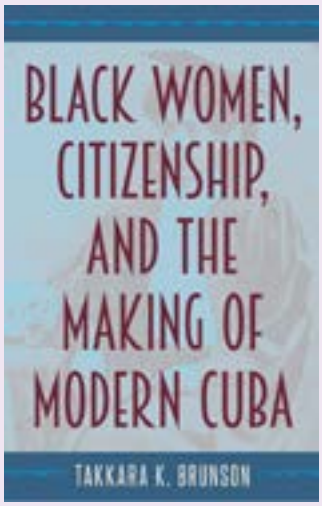

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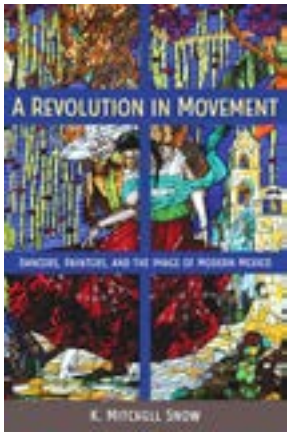

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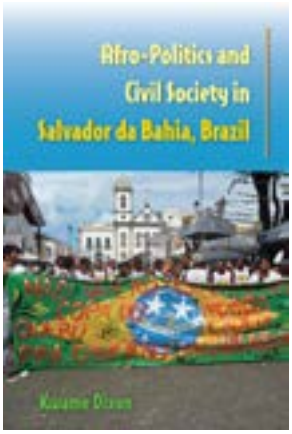

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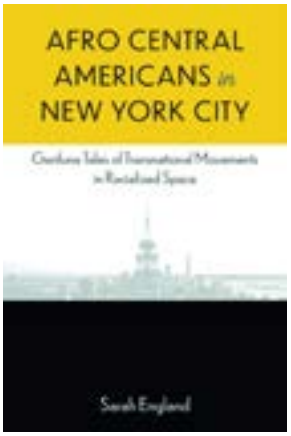

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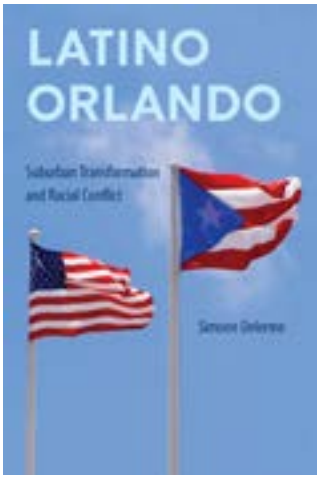

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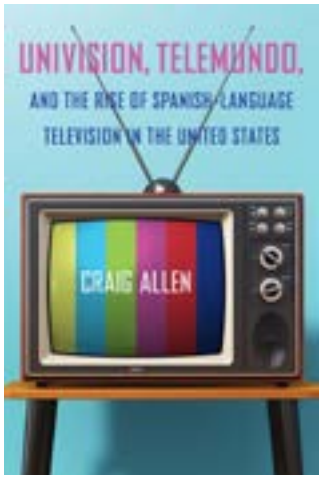

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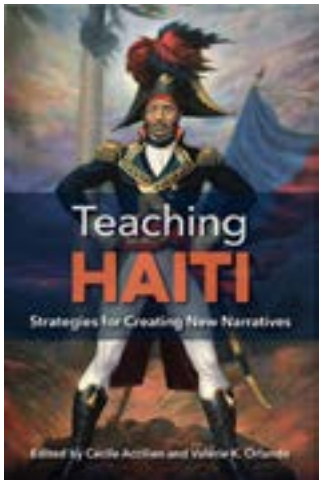

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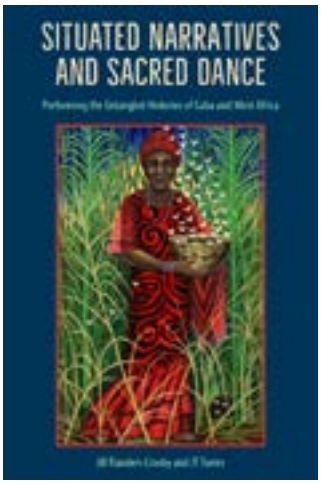

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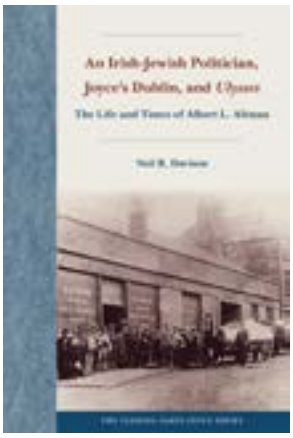

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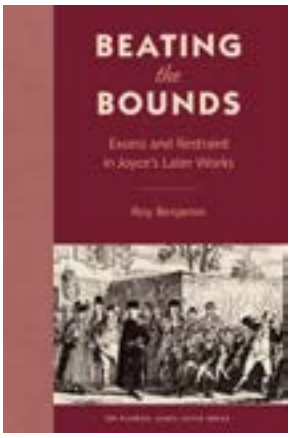

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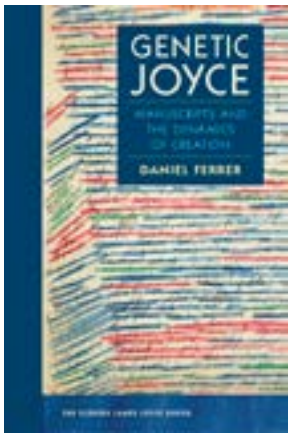

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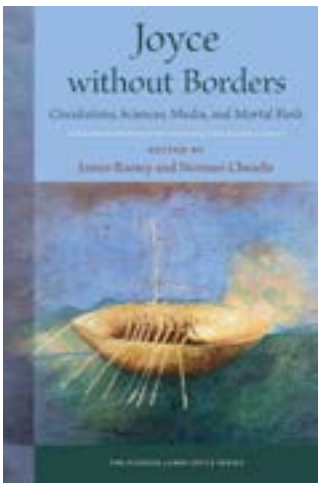

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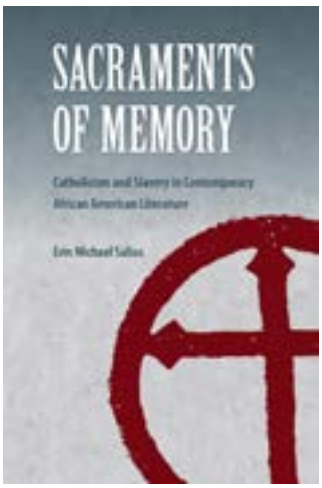

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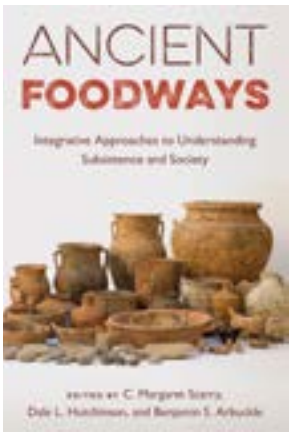

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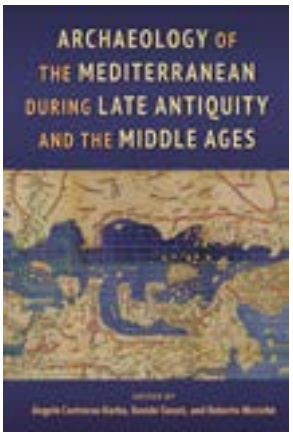

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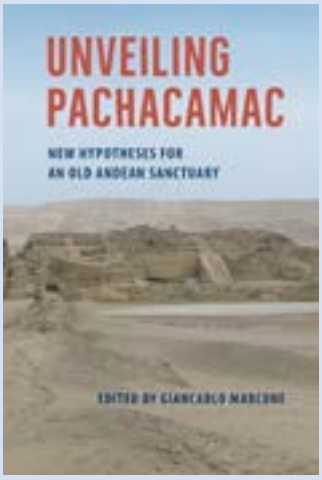

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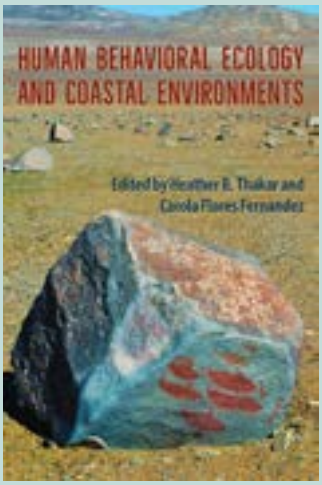

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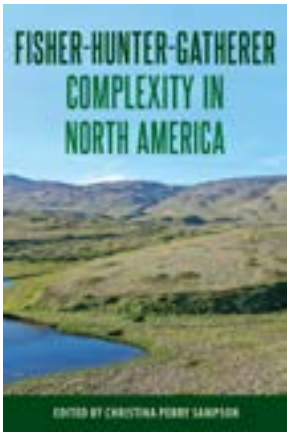

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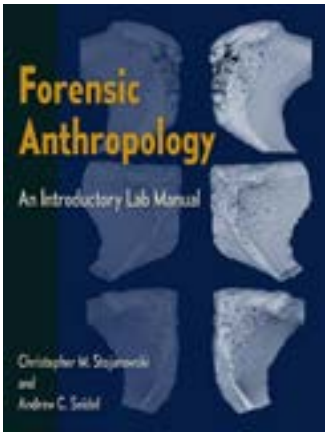

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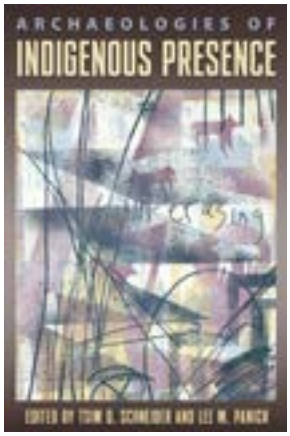

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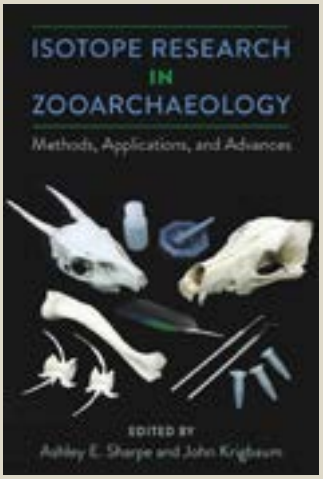

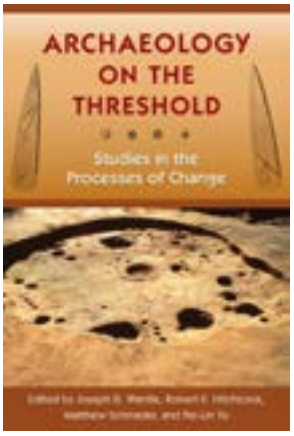

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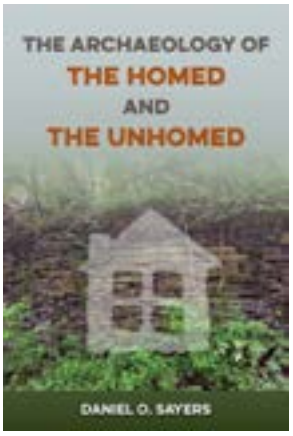

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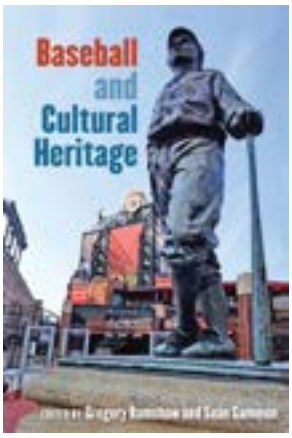

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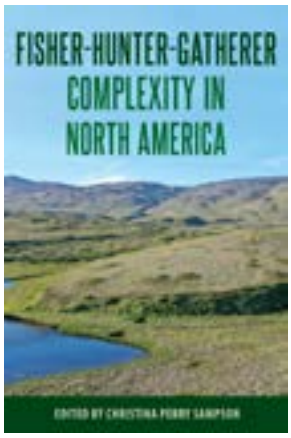

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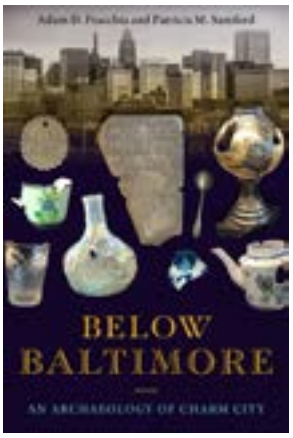

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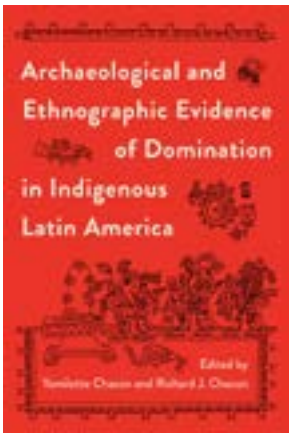

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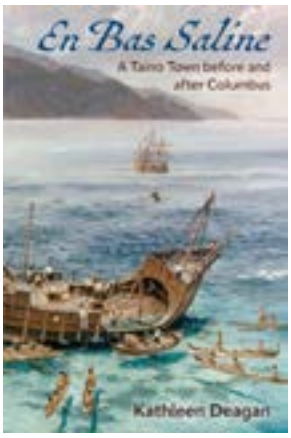

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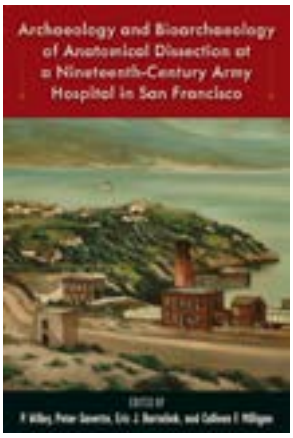

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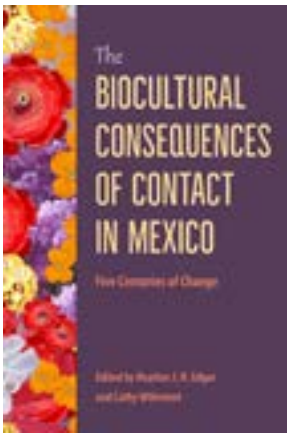

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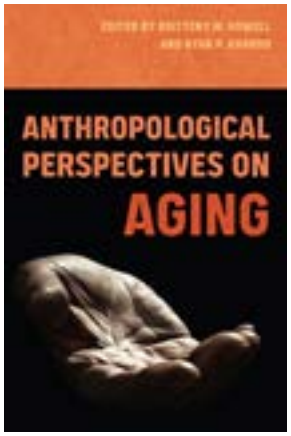

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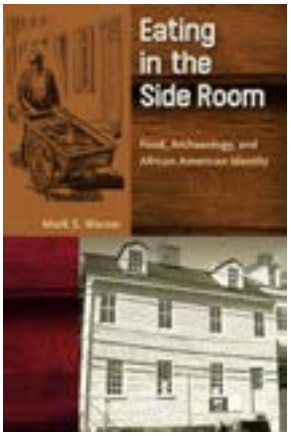

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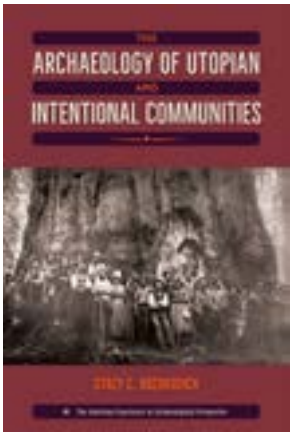

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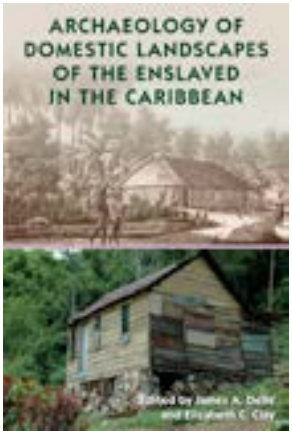

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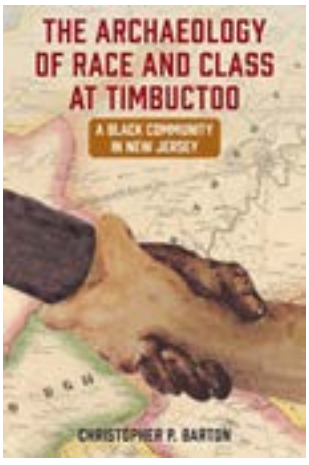

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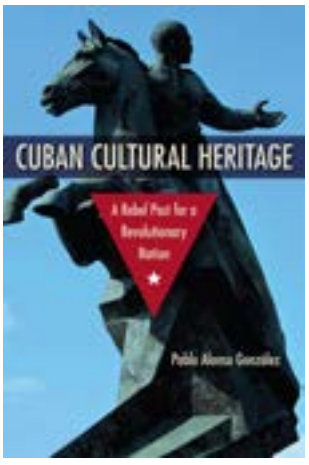

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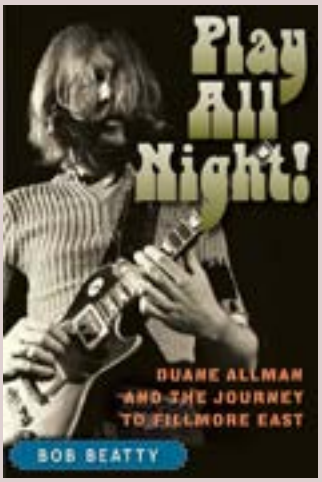

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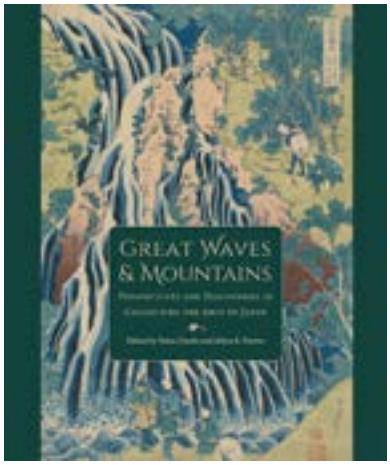

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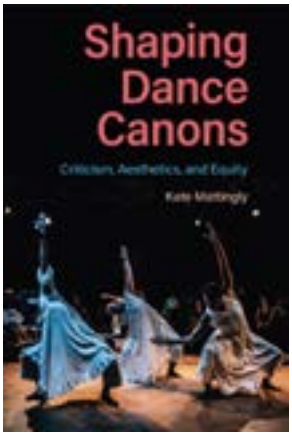

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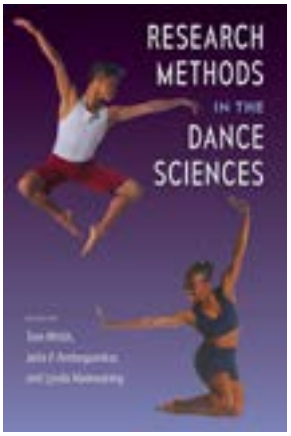

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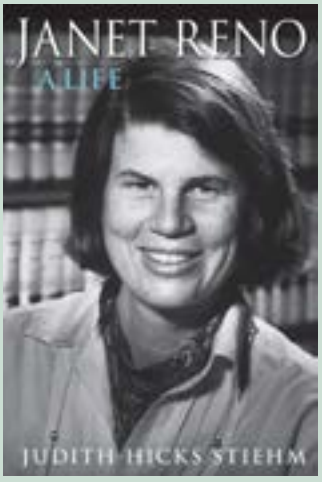

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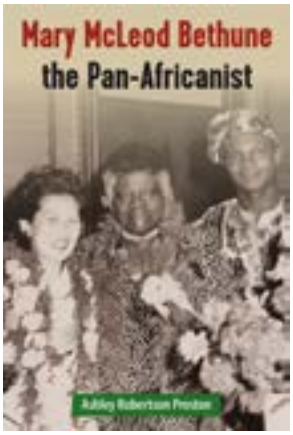

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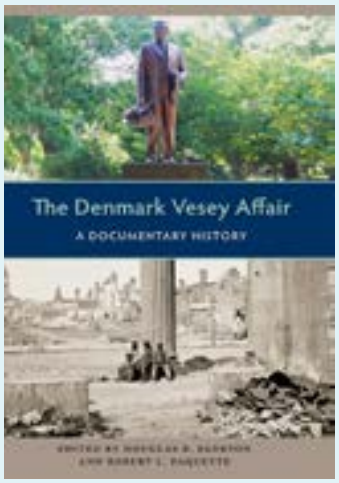

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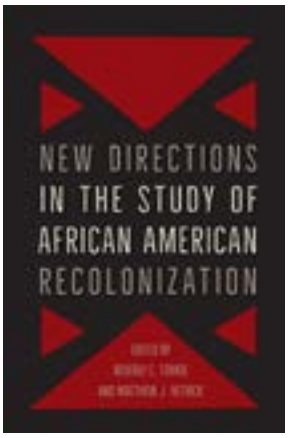

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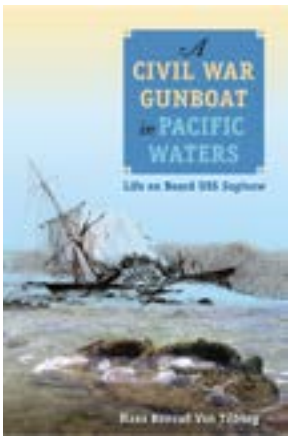

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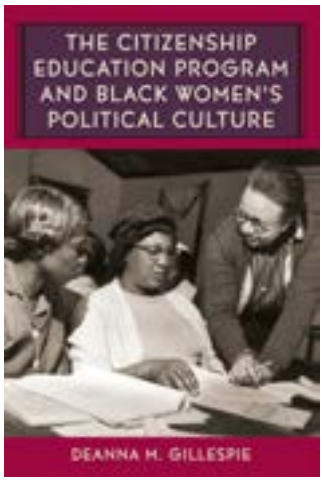

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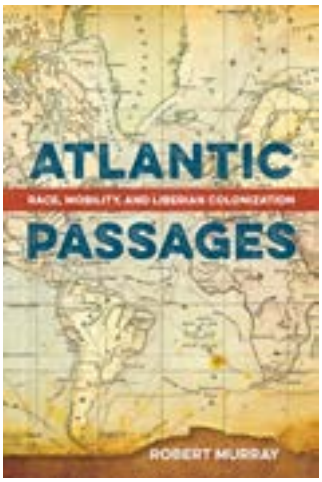

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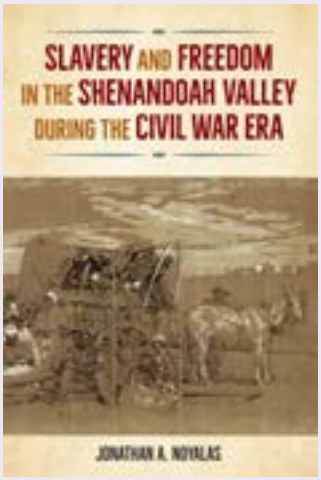

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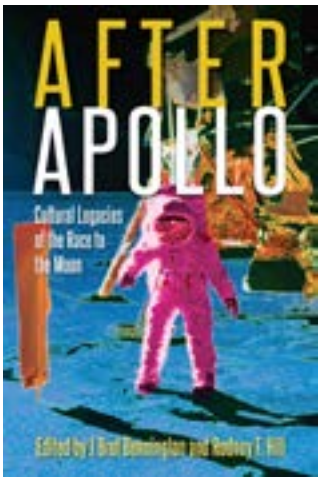

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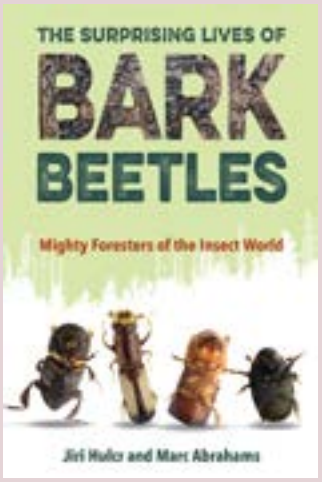

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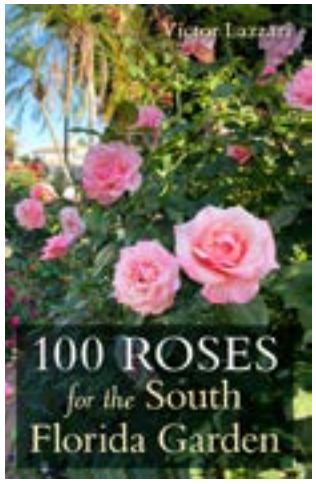

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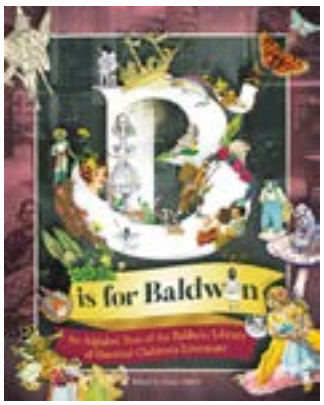

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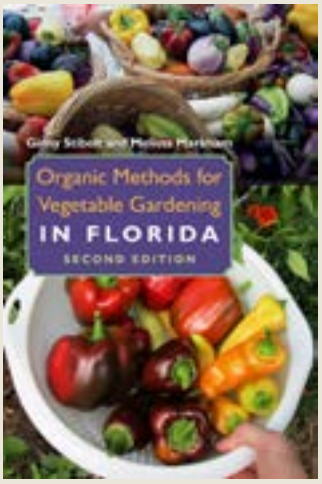

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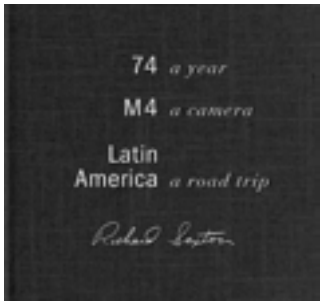

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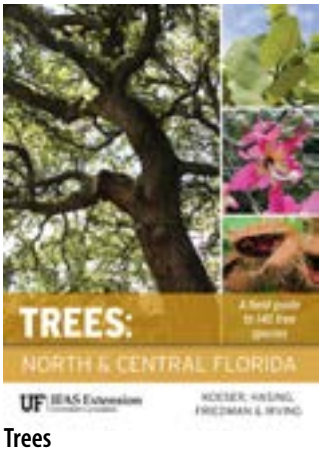

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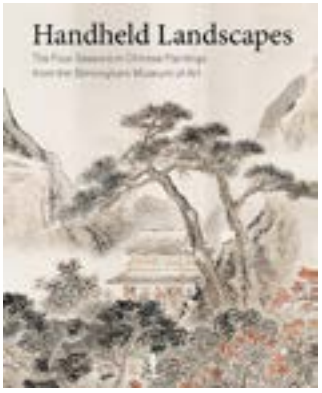

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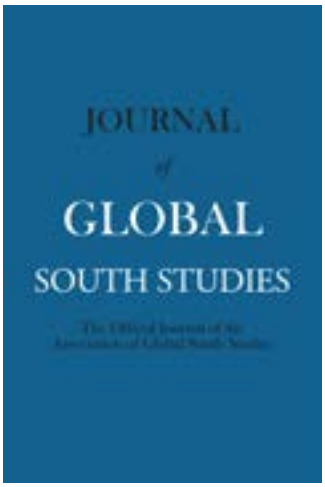

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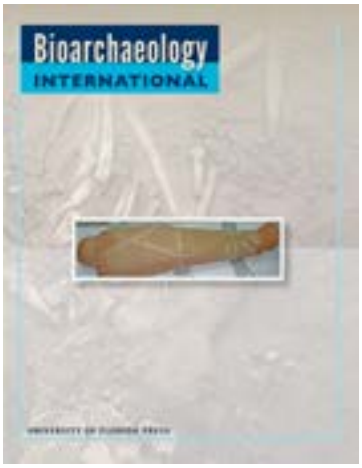

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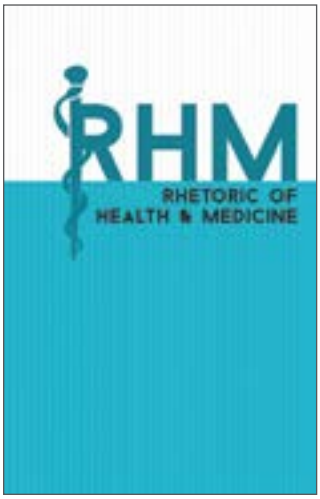

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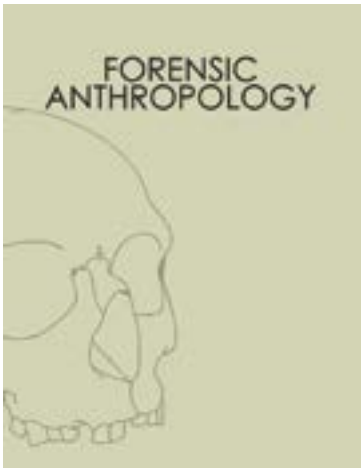

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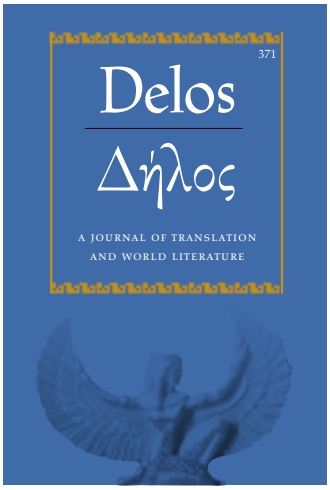

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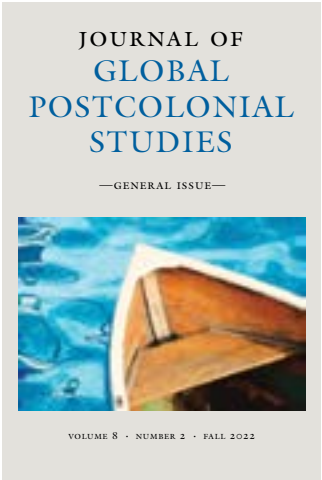

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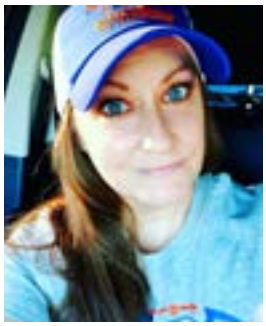

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