



**FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
ACADEMIC POLICY AND STUDENT AFFAIRS COMMITTEE**

FIU, Modesto A. Maidique Campus, Graham Center Ballrooms

Livestream: <http://webcast.fiu.edu/>

**Tuesday, September 14, 2021
10:30 a.m.**

or

Upon Adjournment of Previous Meeting

Chair: Natasha Lowell

Vice Chair: Donna J. Hrinak

Members: Cesar L. Alvarez, Jose J. Armas – *Health Affairs liaison*, Dean C. Colson, Joerg Reinhold,
Chanel T. Rowe, Alexander Rubido, Marc D. Sarnoff, Roger Tovar – *Athletics liaison*

AGENDA

- | | |
|---|---------------------|
| 1. Call to Order and Chair's Remarks | Natasha Lowell |
| 2. Approval of Minutes | Natasha Lowell |
| 3. Action Items | |
| AP1. Tenure as a Condition of Employment Nominations | Kenneth G. Furton |
| AP2. Legislative Budget Requests | Kenneth G. Furton |
| AP3. Textbook and Instructional Materials Affordability Annual Report | Elizabeth M. Bejar |
| AP4. Proposed Amendment to Regulation FIU-2501 Student Conduct and Honor Code | Elizabeth M. Bejar |
| AP5. Florida Educational Equity Act Report | Emmanuele A. Bowles |
| 4. Information and Discussion Items | |
| 4.1 Knight Foundation School of Computing and Information Sciences Sublease | Kenneth G. Furton |

4. Information and Discussion Items *(Continued...)*

4.2 Academic Affairs Regular Reports

- | | |
|--|---------------------------|
| ▪ Academic and Career Success | Valerie Johnsen |
| ▪ Engagement | Saif Y. Ishoof |
| ▪ Enrollment Management and Services | Kevin B. Coughlin |
| ▪ Information Technology | Robert Grillo |
| ▪ Research and Economic Development/ University Graduate | Andres G. Gil |
| ▪ Academic and Student Affairs | Elizabeth M. Bejar |

5. Student Government Updates

Alexander Rubido

6. Faculty Senate Updates

Joerg Reinhold

7. New Business *(If Any)*

Natasha Lowell

8. Concluding Remarks and Adjournment

Natasha Lowell

FIU Board of Trustees, Academic Policy and Student Affairs Committee Meeting

Time: September 14, 2021 10:30 AM - 11:30 AM EDT

Location: FIU, Modesto A. Maidique Campus, Graham Center Ballrooms, General Public access via <http://webcast.fiu.edu/>

Section	Agenda Item	Presenter	Page
1.	Call to Order and Chair's Remarks	Natasha Lowell	
2.	Approval of Minutes	Natasha Lowell	1
	<i>Minutes: Academic Policy and Student Affairs Committee Meeting, June 16, 2021</i>		2
3.	Action Items		
AP1.	Tenure as a Condition of Employment Nominations	Kenneth G. Furton	6
	Tenure as a Condition of Employment Nominee Overview		7
	Tenure as a Condition of Employment Bios		8
	Tenure as a Condition of Employment Nominees Curriculum Vitas		14
AP2.	Legislative Budget Requests	Kenneth G. Furton	141
	2022-2023 Legislative Budget Requests Form I - FIU Program of Distinction in Environmental Resilience		142
	2022-2023 Legislative Budget Requests Form II - FIU Program of Distinction in Environmental Resilience		157
	2022-2023 Legislative Budget Requests Form I - FIU Strategic Degree Implementation Plan		158
	2022-2023 Legislative Budget Requests Form II - FIU Strategic Degree Implementation Plan		171
AP3.	Textbook and Instructional Materials Affordability Annual Report	Elizabeth M. Bejar	172
	Textbook and Instructional Materials Affordability Annual Report		173

Section	Agenda Item	Presenter	Page
AP4.	Proposed Amendment to Regulation FIU-2501 Student Conduct and Honor Code	Elizabeth M. Bejar	259
	Executive Summary of Revisions to FIU-2501 Student		261
	Conduct and Honor Code		262
AP5.	Florida Educational Equity Act Report	Emmanuele A. Bowles	293
	Florida Educational Equity Act Report, 2021 reporting year		294
4.	Information and Discussion Items		
4.1	Knight Foundation School of Computing and Information Sciences Sublease	Kenneth G. Furton	
4.2	Academic Affairs Regular Reports		385
	<ul style="list-style-type: none"> • Academic and Career Success 	Valerie Johnson	
	<ul style="list-style-type: none"> • Engagement 	Saif Y. Ishaof	
	<ul style="list-style-type: none"> • Enrollment Management and Services 	Kevin B. Coughlin	
	<ul style="list-style-type: none"> • Information Technology 	Robert Grillo	
	<ul style="list-style-type: none"> • Research and Economic Development/University Graduate School 	Andres G. Gil	
	<ul style="list-style-type: none"> • Academic and Student Affairs 	Elizabeth M. Bejar	
5.	Student Government Update	Alexander Rubido	
6.	Faculty Senate Update	Joerg Reinhold	
7.	New Business <i>(If Any)</i>	Natasha Lowell	
8.	Concluding Remarks and Adjournment	Natasha Lowell	

THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
Academic Policy and Student Affairs Committee
September 14, 2021

Subject: Approval of Minutes of Meeting held on June 16, 2021

Proposed Committee Action:

Approval of Minutes of the Academic Policy and Student Affairs Committee meeting held on June 16, 2021 at the FIU, Modesto A. Maidique Campus, Graham Center Ballrooms and via Zoom.

Background Information:

Committee members will review and approve the minutes of the Academic Policy and Student Affairs Committee meeting held on June 16, 2021 at the FIU, Modesto A. Maidique Campus, Graham Center Ballrooms and via Zoom.

Supporting Documentation:	Minutes: Academic Policy and Student Affairs Committee Meeting, June 16, 2021
----------------------------------	--

Facilitator/Presenter:	Natasha Lowell, <i>Academic Policy and Student Affairs Committee Chair</i>
-------------------------------	--

This page intentionally left blank



**FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
ACADEMIC POLICY AND STUDENT AFFAIRS COMMITTEE
MINUTES
JUNE 16, 2021**

1. Call to Order and Chair's Remarks

The Florida International University Board of Trustees' Academic Policy and Student Affairs Committee meeting was called to order by Committee Vice Chair Donna J. Hrinak on Wednesday, June 16, 2021, at 10:49 a.m. at the FIU, Modesto A. Maidique Campus, Graham Center Ballrooms and via Zoom.

General Counsel Carlos B. Castillo conducted roll call of the Academic Policy and Student Affairs Committee members and verified a quorum. Present were Trustees Natasha Lowell, *Committee Chair (via Zoom)*; Donna J Hrinak, *Committee Vice Chair*; Cesar L. Alvarez (*via Zoom*); Dean C. Colson, *Board Chair*; Joerg Reinhold; Chanel T. Rowe (*via Zoom*); Alexander Rubido; Marc D. Sarnoff; and Roger Tovar, *Board Vice Chair and Athletics Liaison (via Zoom)*.

Trustee Jose J. Armas, *Health Affairs Liaison*, was excused.

Trustee Gene Prescott and University President Mark B. Rosenberg were also in attendance.

Committee Vice Chair Hrinak welcomed all Trustees and members of the University administration. She also welcomed Trustees, University administrators, and staff attending via the virtual environment and the University community and general public accessing the meeting via the University's webcast. She introduced and welcomed Student Government President and student Trustee Alexander Rubido.

Provost and Executive Vice President Kenneth G. Furton commented that Dr. Joanne Li, Dean of the College of Business, has accepted the position of Chancellor at the University of Nebraska at Omaha. He added that Dr. William Hardin is serving as Interim Dean while the University conducts a national search for the next Dean of the College of Business. Provost Furton referred Trustees to the handout pertaining to the Florida Board of Governors (BOG) 2021 Performance-Based Funding Model final metric score sheet, commenting on FIU's total score of 97. He remarked that FIU's score of 97 is the highest score ever earned in Performance-Based Funding Model history.

2. Approval of Minutes

Committee Vice Chair Hrinak asked that the Committee approve the minutes of the meeting held on February 23, 2021. A motion was made and unanimously passed to approve the minutes of the Academic Policy and Student Affairs Committee meeting held on February 23, 2021.

3. Action Items

AP1. Tenure Nominations

Committee Vice Chair Hrinak explained that 22 candidates were nominated for tenure, stating that the nominees selected to receive tenure have demonstrated excellence in scholarly and academic achievement. Provost Furton remarked that one of the most important factors in achieving top-50 recognition in *U.S. News & World Report* is recruiting and retaining high-level faculty who can help facilitate student learning as well as conduct impactful research. He provided an overview of the University's tenure process, noting that the review process is extensive with a very rigorous assessment of the faculty member's dossier at a number of levels. He indicated that once a faculty member is awarded tenure, there is an annual review process and an assignment by their department chair, adding that said faculty member is subjected to differential assignments based on their productivity on an annual basis and a sustained performance evaluation is conducted every seven (7) years.

Provost Furton pointed out that 23 faculty members began the tenure review process with one (1) candidate subsequently withdrawing their application, adding that 22 faculty members were successful in completing the tenure review process. He mentioned that, collectively, the tenure candidates have achieved over \$17M in external funding and published over 447 peer reviewed publications that have been cited more than 7,000 times.

A motion was made and unanimously passed that the FIU Board of Trustees Academic Policy and Student Affairs Committee recommend to the Florida International University Board of Trustees approval of the Tenure Nominations as specified in the Board materials.

AP2. Tenure as a Condition of Employment Nominations

Committee Vice Chair Hrinak explained that there are nine (9) Tenure as a Condition of Employment (TACOE) nominations, adding that the TACOE candidates already have achieved tenure or are eligible for tenure at their respective institutions at the time of hire. Provost Furton presented the TACOE nominations for Committee review, noting that all nine (9) TACOE nominees are tenured at their current institutions. He added that, at the time of hiring, the respective departments and colleges have completed the tenure review process and have vetted the candidates' scholarly qualifications, stating that he and the President recommend the nominees for TACOE. Provost Furton briefly commented on each of the TACOE candidates, noting that six (6) of the nine (9) TACOE candidates are being funded from the \$32M legislative allocation.

A motion was made and unanimously passed that the FIU Board of Trustees Academic Policy and Student Affairs Committee recommend to the Florida International University Board of Trustees the approval of nine (9) candidates for Tenure as a Condition of Employment as specified in the Board materials.

AP3. Program Termination Doctor of Education in Exceptional Student Education

Senior Vice President for Academic and Student Affairs Elizabeth M. Bejar presented the program termination of the Doctor of Education in Exceptional Student Education for Committee review. She remarked that all programmatic action items involving doctoral programs require the final approval of the BOG. She indicated that, as part of a multi-year process in improving and streamlining the University's graduate academic offerings, the PhD in Teaching and Learning was revised to include a specialization in exceptional student education. Sr. VP Bejar commented that said specialization was formed in 2019, stating that existing students had the opportunity to transition or to complete their existing program. She pointed out that, of the 11 students in the program at the time, nine (9) transitioned to the PhD seamlessly and two (2) opted out and have since completed and graduated from the program. She mentioned that the University has determined that it is now time to close the original degree given the success of the new specialization in the PhD in Teaching and Learning and that there are no students left in the original program.

A motion was made and unanimously passed that the FIU Board of Trustees Academic Policy and Student Affairs Committee recommend to the Florida International University Board of Trustees to recommend to the Board of Governors termination of the Doctor of Education in Exceptional Student Education (CIP 13.1001).

AP4. Florida International University Annual Accountability Plan, 2021, Revision

Provost Furton presented the revision to FIU's 2021 Accountability Plan for Committee review. He explained that subsequent to Board of Trustees approval of the University's Accountability Plan on April 21, 2021, the BOG requested that all universities change the 2020-21 goals for online full-time equivalent (FTE) metrics to reflect actuals instead of goals. He referred to the agenda materials, which highlight the suggested changes. He pointed out that, in the year prior to COVID, 39% of the University's courses were considered 100% distance. He added that the BOG's goal for distance learning is 40%, noting that during the pandemic, the University's courses considered 100% distance increased to 77%. Provost Furton mentioned that the University expects to return to 39% distance and 61% in-person learning for the summer B term. He explained that the average cost to the student, which had previously been calculated at 3,930 was now changed to 3,950, indicating that said revision was a mathematical correction by the BOG.

A motion was made and unanimously passed that the FIU Board of Trustees Academic Policy and Student Affairs Committee recommend that the Florida International University Board of Trustees (1) approve Florida International University's Annual Accountability Plan revision as provided in the Board materials and (2) delegate authority to the University President to perform finish editing as needed and to amend consistent with comments received from the Board of Governors.

4. Information and Discussion Items

4.1 Academic Affairs Regular Reports

There were no questions from the Committee members in terms of the Academic Affairs regular reports included as part of the agenda materials.

5. Student Government Updates

Trustee Rubido commented on the areas that student government will be focusing on for the upcoming year, specifically on-campus student repopulation and student engagement, addressing and advocating for the requests and needs of the student body, and increasing student spaces around campus. He commented that, with the return to normalcy, student government will continue focusing on bringing students back to campus and providing them with the best and most state-of-the-art facilities to aid them in their pursuit of academic success.

In response to Committee Chair Natasha Lowell, Trustee Rubido remarked that student government designed a commission to evaluate all student spaces, noting that large populations of students congregate in the Graham University Center, therefore, said space is a priority. He also mentioned academic buildings, food service retail buildings, and the Management and New Growth Opportunities (MANGO) building as priorities.

6. Faculty Senate Updates

Trustee Reinhold, Faculty Senate Chair, commented on the June 8, 2021, Faculty Senate meeting, noting that while the Faculty Senate reviewed several curriculum action items, the summer agenda is generally lighter given that faculty are focusing on their respective research and scholarly activities during the summer.

In response to Trustee Marc D. Sarnoff, Provost Furton commented that while the University is not aware of the percentage of faculty members that have received the COVID-19 vaccine, faculty members were (among those) given priority in terms of vaccines administered on campus.

7. New Business

No new business was raised.

8. Concluding Remarks and Adjournment

With no other business, Committee Vice Chair Donna J. Hrinak adjourned the meeting of the Florida International University Board of Trustees Academic Policy and Student Affairs Committee on Wednesday, June 16, 2021, at 11:19 a.m.

THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
Academic Policy and Student Affairs Committee
September 14, 2021

Subject: Tenure as a Condition of Employment Nominations

Proposed Committee Action:

Recommend to the Florida International University Board of Trustees the approval of six (6) candidates for Tenure as a Condition of Employment (TACOE).

Background Information:

Pursuant to Florida Board of Governors Regulation 1.001(5)(a), each board of trustees shall provide for the establishment of the personnel program for all the employees of the university, including but not limited to tenure.

The TACOE nominees hold tenure at their previous institutions and have been selected to receive TACOE based on the caliber of their work.

Supporting Documentation:

Tenure as a Condition of Employment Nominee Overview
Tenure as a Condition of Employment Nominee Bios
Tenure as a Condition of Employment Nominees
Curriculum Vitas

Facilitator/Presenter:

Kenneth G. Furton

This page intentionally left blank

Florida International University
Tenure as a Condition of Employment Nominations - September 2021

Name	College	Department	Proposed Rank
Hakima Bessaih	College of Arts, Sciences and Education	Math & Statistics	Professor
Juan C. Cendan	College of Medicine	Surgery	Professor
Rajiv Chowdhury	College of Public Health and Social Work	Global Health	Professor
Nathan J. Dorn	College of Arts, Sciences and Education	Biological Sciences	Associate Professor
Janna L. Fierst	College of Arts, Sciences and Education	Biological Sciences	Associate Professor
Mo Sha	College of Engineering and Computing	KF School of Computing & Information Sciences	Associate Professor

This page intentionally left blank

Hakima Bessaih
Mathematics & Statistics
College of Arts, Sciences & Education

Dr. Bessaih received her PhD in Applied Mathematics from Scuola Normale Superiore, Pisa, in 1999. She subsequently served as Associate Professor of Mathematics at the University of Algiers from 2002 to 2004, joined the University of Wyoming as an Assistant Professor in 2004, was tenured and promoted to Associate Professor in 2008, and earned the rank of Professor in 2015.

Dr. Bessaih has focused her research interests on stochastic analysis and differential equations, a prominent area of mathematics. Her area of research is one that has produced the past two Fields Medal winners (the highest honor in mathematics). She has published 47 peer-reviewed papers and, of these, 24 have been published since she became a full professor in 2015. Additionally, Dr. Bessaih has published a peer-reviewed book and three refereed proceedings papers. Dr. Bessaih has participated in more than 130 invited presentations at universities and conferences, and she has been successful in securing grants for her research. As Principal Investigator, she has obtained \$416,000 in funding from the National Science Foundation (NSF), Simons Foundation, and the University of Wyoming.

Her teaching includes courses at both the undergraduate and graduate levels. She also supported adjunct applications of scholars from international locations. Dr. Bessaih is an active member of groups such as the Association of Women in Mathematics (AWM) and Wyoming Women in Science and Engineering (WWISE) that promote inclusion. She will serve as a Diversity Mentor Professor supported by the Office to Advance Women, Equity and Diversity. She has supervised three Ph.D. students and four M.S. students. She has served on the thesis and dissertation committees of 20 graduate students and has supervised the research of seven undergraduates.

Juan C. Cendan
Department of Surgery
Herbert Wertheim College of Medicine

Dr. Cendán was formerly on the faculty at the University of Central Florida College of Medicine, where he served as a tenured Professor of Surgery and Chairman of the Department of Medical Education. He was also the Assistant Vice-President of the Academic Health Science Center Mission Integration.

Dr. Cendán has focused his research interests on minimally invasive surgery and is a national leader in medical education. In addition to the publication of over 100 articles, several chapters, as well as four patents, Dr. Cendán has received grant funding to support novel educational instruction, with an emphasis on surgical training. He has received national and international awards in educational scholarship.

Dr. Cendán is committed to mentoring students, and many of his publications involve students as co-authors or as the focus of the research. These include an innovative mathematical model for identification of medical students at risk for failure to progress, which has been replicated in several other medical colleges and is being used to focus resources on struggling students. Another project is centered on the idea of student identity formation and professionalism involving the use of a mobile application for recording professionalism-related events.

Dr. Cendán's service record includes serving on a committee that oversees student progress and promotions and as an LCME accreditation site visitor at four different medical colleges. He also served as Chair of the American College of Surgeons' inaugural Committee on Diversity Issues. He has frequently been an invited speaker at regional, national, and international meetings in recognition of his educational and clinical contributions.

Rajiv Chowdhury
Department of Global Health
Robert Stempel College of Public Health and Social Work

Dr. Chowdhury received his medical degree from the University of Dhaka, Bangladesh in 2001. He earned a Master's degree in Epidemiology and a PhD in Global Public Health in 2007 and 2013 respectively from the University of Cambridge, UK. In 2008, he joined the University of Cambridge, where he worked as Assistant Professor of Epidemiology, Global Non-communicable Diseases (NCDs) until 2017, and as Associate Professor in Global Public Health until 2021. This year, he joined the College of Medicine and Health at the University of Exeter as a tenured Professor of Global Health. Dr. Chowdhury will serve as Inaugural Chair of the new Global Health Department.

Dr. Chowdhury has focused his research interests on the effects that lifestyle and metabolic, environmental, and biological factors have on the risk of noncommunicable diseases (NCD) among non-Western ethnic populations. His research has been well-funded, and he currently has two grants as co-PI. He is well-recognized for his expertise in epidemiology and nutrition-related research, and he has published over 113 peer-reviewed articles and 63 books/book chapters.

Dr. Chowdhury has taught undergraduate, graduate, and postgraduate-level students. In addition, he has successfully mentored 12 academic fellows, 6 MPH, and 4 Ph.D. students in the past five years. Internationally, Dr. Chowdhury has led an NCD module at the German Institute of Tropical Medicine and a Global Health module at Erasmus University, Netherlands. He served as a joint Course Director to a major global health fellowship program in South Asia called CAPABLE. This fellowship program trained approximately 80 public health research fellows in Bangladesh and Malaysia.

Dr. Chowdhury has a strong record of service throughout his career. He served as the Scientific Director of UKRI/CAPABLE Global Health Program at the University of Cambridge. He has also served as the Chair for the Management and Operations Group (MOG) of Global Health Studies in University of Cambridge, UK. In addition, Dr. Chowdhury has served as a reviewer for numerous journals and grant review panels and serves on multiple journal editorial boards.

Nathan J. Dorn
Department of Biological Sciences
College of Arts, Sciences and Education

Dr. Dorn received his PhD in Zoology/Ecology Evolution and Behavior from Michigan State University (MSU) in 2003. Dr. Dorn taught at Florida Atlantic University (FAU), where he was promoted to Associate Professor in 2011 and Professor in 2018.

Dr. Dorn has focused his research interests on freshwater ecology, population and community ecology, predator effects on prey communities, and ecology of freshwater crayfish. His work examines areas that are important to South Florida, particularly wetlands such as the Everglades. He has published 26 of his 32 peer-reviewed papers while at FAU, with his lab averaging almost two refereed papers per year over the past decade. Dr. Dorn has been successful in securing funding from external sources, and he has supervised projects as lead or sole PI that have resulted in almost \$1.6M of support from external agencies.

His teaching includes courses at both the undergraduate and graduate levels. Dr. Dorn has supervised one PhD student, and 13 M.S. students. He has co-advised 3 additional M.S students.

Dr. Dorn has a record of service to his program, department, college, community, and his field, including having served as Associate Editor for two journals and conducted many manuscript and proposal reviews. He has also been deeply involved in agency reviews of Everglades Restoration efforts.

Janna L. Fierst
Department of Biological Sciences
College of Arts, Sciences and Education

Dr. Fierst received her PhD in Biology from Florida State University in 2010. After finishing her PhD, she was a postdoc at the University of Oregon from 2010-2014. Dr. Fierst joined the University of Alabama (UA) as an Assistant Professor in 2015 and was promoted to the rank of Associate Professor with tenure by the UA.

Dr. Fierst has focused her research interests on evolutionary genetics, and she employs theoretical, computational, and bioinformatic methods in her analysis. She has published 16 papers since her arrival at the University of Alabama out of a total of 25 total journal articles. She also has five papers in review or revision after review, has presented 20 conference presentations in the past six years, and given 11 invited seminars. Dr. Fierst has ongoing funding of \$1.8 million including an NSF \$1.1 million CAREER grant.

Her teaching includes courses at both the undergraduate and graduate levels. At the University of Alabama, she also served as major professor to four doctoral students and has served on 17 Dissertation and five thesis committees.

Dr. Fierst has an excellent record of service to her program, department, college, community, and her field, including serving as Faculty advisor for the University of Alabama Graduate Women in Science. Professionally she has been a panel member for NSF and reviewer for NIH fellowship panel and an early career reviewer for NIH Genomics, Computational Biology and Technology study section. She has reviewed for 18 different journals and as ad hoc reviewer for NSF, the UK Medical Research Council, the National Agency for Research of France and CONACYT of Mexico and the U.S. Graduate Women in Science National Fellowship Program.

Mo Sha
Knight Foundation School of Computing and Information Sciences
College of Engineering and Computing

Dr. Sha completed his PhD in Computer Science from Washington University in St. Louis in 2014. He has been with Binghamton University – State University of New York since 2015 and is in the process of an application for promotion to associate professor with tenure currently.

Dr. Sha has focused his research interests on Wireless Networking, Internet of Things (IoT), Applied Machine Learning, Network Security, and Cyber-Physical Systems. Dr. Sha has received three research grants, including the prestigious National Science Foundation (NSF) CAREER and CRII awards. Earlier, he also received an NSF Computer and Information Science and Engineering Research Initiation Initiative (CRII) award (single-PI, \$175,000). Dr. Sha has also been a Co-PI on another small award from the Binghamton University Transportation and Parking Services. Dr. Sha has authored and coauthored 35 papers at the highly selective conferences, such as USENIX NSDI, IEEE INFOCOM, ICNP, and ICDCS, and 14 papers in high-impact journals such as, Proceedings of the IEEE and IEEE/ACM Transactions on Networking.

Dr. Sha's teaching includes courses at both undergraduate and graduate levels and in 2018 he received the Educator of the Year award and the Career Champion award for his outstanding teaching performance at SUNY Binghamton.

He has served in various capacities in his department, college, and university. Dr. Sha has an excellent professional service record, having served as well as journal referee for 20 different journals, including computer science premier journals such as, ACM Transactions on Sensor Networks, IEEE/ACM Transactions on Networking, ACM Transactions on Cyber-Physical Systems, and IEEE Transactions on Computers. He has actively supported IEEE and ACM conferences as a Technical Program Committee Member. He has also helped organize conferences, as a session chair, publicity chair, or web chair. Dr. Sha was an NSF Panelist. He is also a founding member of the IEEE Special Interest Group (SIG) on Big Data Intelligent Networking.

Curriculum Vitae

Hakima Bessaih

University of Wyoming
Department of Mathematics
Ross Hall 210
Laramie WY 82071
Phone: (307) 766-6213
Fax: (307) 766-6838
Cell: (307) 399-7497
E-mail: bessaih@uwyo.edu
URL: <http://www.uwyo.edu/bessaih/>

EDUCATION

1999: Ph.D., Scuola Normale Superiore, Pisa, Italy.
Dissertation title: Stochastic Partial Differential Equations of Euler Type.
Advisor: Franco Flandoli.
1992: M.S., University of Algiers, Algeria.
Dissertation title: Limite de modeles de fluides compressibles.
Advisor: Assia Benabdallah.

ACADEMIC POSITIONS

2015-present: Professor, Mathematics, University of Wyoming.
2008-2015: Associate professor, Mathematics, University of Wyoming.
2004-2008: Assistant Professor, Mathematics, University of Wyoming.
2002-2004: Associate Professor, Mathematics, University of Algiers.
1999-2002: Post-doctorate Fellow, Applied Mathematics, University of Pisa.

GRANTS and AWARDS

Research grants

- **2019-2020:** Probabilistic Methods for Uncertainty Quantification in Subsurface Modeling of Natural Resources, sponsored by the College of Arts & Sciences, UW (PI).
- **2018-2023:** Random vortex methods in 3d fluids, Simons foundation (PI).
- **2016-2018:** Multiscale methods with application to fluid flow, Energy GAs sponsored by Academic Affairs, UW (PI).

- **2014-2018:** Collaborative Research: Determining Forms and Data Assimilation with Stochastic Data, DMS 1418838, NSF (PI).
- **2013-2018:** SPDEs in Hydrodynamic: Statistical Properties and Inviscid Limits, Simons foundation (PI).
- **2006-2009:** Stochastic Analysis of Vortex filaments, DMS 0608494, NSF, (PI).

Travel grants funded projects as a PI

- **2014-2015:** Summer School at the UW: Stochastic equations for complex systems: theory and applications, DMS 1416689, NSF (PI).
- **2014** Summer School at the UW: Stochastic equations for complex systems: theory and applications, IMA (CoPI).
- **2011-2012:** The Second International Conference on Random Dynamical Systems, DMS 1053072, NSF, (PI).
- **Feb 2014:** Wyoming Women in Science and Engineering (WWISE) Program, \$1,750
- **Dec 2013:** Wyoming Women in Science and Engineering (WWISE) Program, \$1,730
- **2006, 2011:** Association for women in Mathematics.

Travel grants funded projects as a CoPI

- **2014** Summer School at the UW: Stochastic equations for complex systems: theory and applications, IMA, \$4,500.
- **2014** Summer School at the UW: Stochastic equations for complex systems: theory and applications, RMMC, \$12,000.
- **2014** Summer School at the UW: Stochastic equations for complex systems: theory and applications, NCAR, \$12,000.

SABBATICAL

Spring 2012: EPFL Lausanne (2 months), Paris 1 (1 month), University of Pavia (1 month), University of Paderborn (2 months).

Spring 2019: University of Pavia (1 month), Oberwolfach (3 weeks), University of Jena (2 months), University of Pisa (2 weeks), University of York (1 week), University of Sevilla (1 week), University of Reading (1 week).

AWARDS

Spring 2020: A&S Extraordinary Merit in Research Award.

RESEARCH INTERESTS

- Stochastic processes.
- Stochastic partial differential equations.
- Hydrodynamic, turbulence.
- Random dynamical systems for dissipative systems.
- Data assimilation: continuous and discrete data assimilation, downscaling, finite volumes and nodal values.
- Homogenization and averaging of stochastic heterogeneous models in porous medium.
- Numerical analysis for stochastic models: splitting up methods, Galerkin approximations.

PUBLICATIONS

Refereed books

1. S. Heinz and H. Bessaih (Eds.), *Stochastic Equations for Complex Systems: Theoretical and Computational Topics*. Springer-Verlag, Heidelberg, Dordrecht, London, New York (2015).

Refereed journals articles

1. Hakima Bessaih, Maria J. Garrido-Atienza, Verena Köppe, Bjorn Schmalfuss, Mehua Yang, *Synchronization of lattice equations*, NoDEA., **27** (2020), no. 4, Paper No. 36, 25 pp.
2. Hakima Bessaih, Razvan Florian Maris, *Stochastic homogenization of multicontinuum heterogeneous flows*, Journal CAM, Vol **374** (2020), 112746, 20 pp.
3. Hakima Bessaih, Benedetta Ferrario, *Invariant measures for stochastic damped 2D Euler equations*, Comm. Math. Phys., 377 (2020), no. 1, 531–549.
4. Hakima Bessaih, Maria J. Garrido-Atienza, *Longtime behavior for 3D Navier-Stokes equations with constant delays*, Commun. Pure Appl. Anal., 19 (2020), no. 4, 19311948.
5. Hakima Bessaih, Annie Millet, *On strong L^2 convergence of numerical schemes for the stochastic 2D Navier-Stokes equations*, IMA J. Numer. Anal., **39** (2019), no. 4, 2135–2167.
6. Hakima Bessaih, Yalchin Efendiev, Florin Maris, *Stochastic homogenization for a diffusion-advection equation*, Discrete Contin. Dyn. Syst., **39** (2019), no. 9, 5403–5429.

7. H. Bessaih, M. Coghi, F. Flandoli, *Mean field limit of interacting filaments for 3D Euler equations*, J. Stat. Phys. 174 (2019), no. 3, 562–578.
8. Hakima Bessaih, Annie Millet, *On stochastic modified 3d Navier-Stokes equations with anisotropic viscosity*, J. Math. Anal. Appl., **462** (2018), no. 1, 915–956.
9. Hakima Bessaih, Erika Hausenblas, Tsiry Randrianasolo, Paul A. Razafimandimby, *Numerical approximation of stochastic evolution equations: Convergence in scale of the Hilbert spaces*, J. Comput. Appl. Math., **343** (2018), 250–274.
10. Hakima Bessaih, Maria J. Garrido-Atienza, Bjorn Schmalfuss, *On 3D Navier-Stokes equations: regularization and uniqueness by delays*, Physica D: Nonlinear Phenomena., **376–377** (2018), 228–237.
11. H. Bessaih, M. J. Garrido-Atienza, X. Han, B. Schmalfuss, *Stochastic lattice dynamical systems with fractional noise*, SIAM Journal of Mathematical Analysis, **49** (2017) no. 2, 1495–1518.
12. H. Bessaih, M. Coghi, F. Flandoli, *Mean field limit of interacting filaments and vector valued non linear PDEs*, Journal of Statistical Physics, **166** (2017), no. 5, 1276-1309
13. H. Bessaih, B. Ferrario, *The regularized 3D Boussinesq equations with fractional Laplacian and no diffusion*, Journal of Differential Equations., **262** (2017), no. 3, 1822–1849.
14. H. Bessaih, B. Ferrario, *Statistical properties of stochastic 2D Navier-Stokes equations from linear models*, DCDS-B, **21** (2016), No. 9, 2927–2947.
15. H. Bessaih, S. Trabelsi, H. Zorgati, *Existence and uniqueness of global solutions for the modified anisotropic 3D Navier-Stokes equations*, M2AN, **50** (2016), 1817–1823.
16. H. Bessaih, M. J. Garrido-Atienza, B. Schmalfuss, *Stochastic shell models driven by a fractional Brownian motion*, Physica.D, **320** (2016), 38–56.
17. H. Bessaih, E. Hausenblas, P. Razafimandimby, *Ergodicity of stochastic shell models driven by pure jump noise*, SIAM J. Math. Anal. 48 (2016), no. 2, 1423–1458.
18. H. Bessaih, F. Maris, *Homogenization of the stochastic Navier–Stokes equation in a perforated domain with a stochastic slip boundary condition*, Applicable Analysis, **95** (2016), no.12, 2703–2735.
19. H. Bessaih, P. Razafimandimby, *On the rate of convergence of the 2-D stochastic Leray-alpha model to the 2-D stochastic Navier-Stokes equations with multiplicative noise*, Applied Mathematics and Optimization, **74** (2016), no.1, 1–25.
20. H. Bessaih, Y. Efendiev, F. Maris, *Homogenization of Brinkman flows in heterogenous dynamic media*, SPDE: Analysis and Computations, **3** (2015), no 4, 479–505.

21. H. Bessaih, E. Hausenblas, P. Razafimandimby, *Strong solutions to stochastic hydrodynamical systems with multiplicative noise of jump type*, Nonlinear Differential Equations and Applications NoDEA., Volume 22, Issue 6 (2015), 1661–1697.
22. H. Bessaih, *Stochastic incompressible Euler equations in a two-dimensional domain*, Progress in Probability, **68** Stochastic Analysis: A series of Lectures, Birkhauser, 135–156 (2015).
23. H. Bessaih, E. Olson, E. S. Titi, *Continuous data assimilation with a stochastically noisy data*, Nonlinearity, Vol **28** (2015), 729–753.
24. H. Bessaih, Y. Efendiev, F. Maris, *Homogenization of the evolution Stokes equation in a perforated domain with a stochastic dynamical boundary condition*, Networks and Heterogeneous Media, Vol **10**(2), (2015), 343–367.
25. H. Bessaih, Z. Brzezniak, A. Millet, *Splitting up method for a 2D-stochastic Navier-Stokes equations*, Stochastic Partial Differential Equations: Analysis and Computations, **2** (2014), no 4, 433–470.
26. H. Bessaih, M. J. Garrido-Azienda, B. Schmalfuss, *Pathwise solutions and attractors for retarded SPDEs with time smooth diffusion coefficients*, DCDS-A., Vol **34** (2014), no 10, 3945–3968.
27. H. Bessaih, B. Ferrario, *Inviscid limit of stochastic damped 2D Navier-Stokes equations*, Nonlinearity, **27** (2014), 1–15.
28. D. Barbato, H. Bessaih, B. Ferrario, *On a stochastic Leray- α model of Euler equations*, Stochastic Processes and Applications, **124** (2014), 199–219.
29. H. Bessaih, R. Kapica, T. Szarek, *Criterion on stability for Markov processes applied to a model with jumps*, Semigroup Forum, **88** (2014), no.1, 76–92.
30. H. Bessaih, B. Ferrario, *Invariant Gibbs measures of the energy for shell models of turbulence; the inviscid and viscous cases*, Nonlinearity, **25**, (2012)1075–1097.
31. H. Bessaih, B. Ferrario, *Invariant measures of Gaussian type for 2D turbulence*, Jour. Stat. Phys., Vol **149** (2012), no. 2, 259–283.
32. H. Bessaih, A. Millet, *Large deviation principle and the zero viscosity limit for the 2D Navier-Stokes equations with a free boundary condition*, SIAM J. Math. Anal., Vol. **44** (2012), No. 3, pp. 1861–1893.
33. H. Bessaih, F. Flandoli, E.S. Titi, *Stochastic attractor for stochastic shell phenomenological models of turbulence*, Jour. Stat. Phys., Vol **140** (4), (2010), 688–717.
34. H. Bessaih, A Millet, *Large deviation principle and inviscid shell models*, Electronic Journal of Probability, Vol **14** (2009), No. 89, 2551–2579.

35. H. Bessaih, *Stationary solutions for the stochastic dissipative Euler equation*, Progress in Probability, Vol **59** (2008), 23-36.
36. H. Bessaih, H. Schurz, *Upper Bounds on the Rate of Convergence of Truncated Stochastic Infinite-Dimensional Differential Systems with L^2 -Regular Noise*, Journal of Computational and Applied Mathematics, **208** (2007), 354-361.
37. D. Barbato, M. Barsanti, H. Bessaih, F. Flandoli, *Some rigorous results on a stochastic GOY model*, Jour. Stat. Phys., Vol. **125** (2006), No 3, 677-716.
38. H. Bessaih, M. Gubinelli, F. Russo, *The evolution of a random vortex filament*, Annals of Probability, **33** (2005), no. 5, 1825-1855.
39. H. Bessaih, F. Flandoli, *Limit behavior of a dense collection of vortex filaments*, Math. Models Methods Appl. Sci., **14** (2004), no.2, 189-215.
40. H. Bessaih, *Semi-linearized compressible Navier-Stokes equations perturbed by noise*, Eletron. J. Differential Equations, no. 2, (2003), 1-18.
41. L. C. Berselli, H. Bessaih, *Some results for the line vortex equation*, Nonlinearity, **15** (2002), no.6, 1729-1746.
42. H. Bessaih, F. Flandoli, *Weak attractor for a dissipative Euler equation*, J. Dynam. Differential Equations., **12** (2000), no. 4, 713-732.
43. H. Bessaih, *Stochastic weak attractor for a dissipative Euler equation*, Electron. J. Probab., **5** (2000), no. 3, 1-16.
44. H. Bessaih, *Martingale solutions for stochastic Euler equations*, Stochastic Anal. Appl., **17** (1999), no. 5, 713-725.
45. H. Bessaih, F. Flandoli, *2-D Euler equation perturbed by noise*, NoDEA Nonlinear Differential Equations Appl., **6** (1999), no. 1, 35-54.
46. H. Bessaih, *On the stability of the solutions to the compressible Navier-Stokes equation when the Mach number goes to zero*, NoDEA Nonlinear Differential Equations Appl., **3** (1996), no. 4, 509-520.
47. H. Bessaih, *Limite de modeles de fluides compressibles*, Portugal. Math., **52** (1995), no. 4, 441-463.

Refereed Proceedings/Transactions

1. Chandana Wijeratne, Hakima Bessaih, *Fractional Brownian Motion and an Application to Fluids*, Stochastic Equations for Complex Systems: Theoretical and Computational Topics, Springer-Verlag, (2015), 37-52.

2. H. Bessaih, F. Flandoli, *A mean field result for 3D vortex filaments*, Probabilistic methods in fluids, World Sci. Publishing, River Edge, NJ, (2003), 22–34.
3. H. Bessaih, *Incompressible limit of compressible Navier-Stokes equations, Qualitative aspects and applications of nonlinear evolution equations*, World Sci. Publishing, River Edge, NJ, (1994), 125–129.

Papers under review

1. Hakima Bessaih, Victor Ginting, Bradley McCaskill, *Continuous data assimilation for an elliptic-parabolic system in subsurface flow models*, submitted.
2. Hakima Bessaih, Yalchin Efendiev, Razvan Florian Maris, *Stochastic homogenization of a convection diffusion equation*, Submitted.

TEACHING

During my tenure at the University of Wyoming, I taught a variety of courses ranging from undergraduate to graduate level classes.

Undergraduate courses:

Finite Mathematics, Calculus, Differential equations, Analysis, Probability theory.

Graduate courses:

Real variables (Measure theory), Functional Analysis, Partial Differential Equations, Probability theory, Stochastic processes, Markov Chains, Topics in Fluid mechanics.

STUDENTS ADVISING

Graduate research supervision

1. 2020-current (PhD): Cynthia Cohn.
2. 2017-2019 (MS-non thesis): Cynthia Cohn.
3. 2014-2018 (PhD): Bradley McCaskill (CoChair),
Thesis project: Numerical Methods for Porous Media Flow: Multiscale Modeling, Uncertainty Quantification, and Continuous Data Assimilation.
4. 2016-2018 (MS): Brandon Lopez,
Thesis project: Stochastic advection-diffusion equation: numerical solutions.
5. 2015-2017 (MS): Monica Bockman,
Thesis project: Convection-Diffusion Model in a Porous Medium.
6. 2008-2011 (Ph.D): Wijeratne chandana janaka,
Thesis project: On stochastic shell models of turbulence.

7. 2006-2008 (M.S): Wijeratne chandana janaka,
Thesis project: Stochastic differential equations driven by fractional Brownian motion and application to fluids.

Undergraduate research supervision

1. Kristen Campilonga (U. Maryland), REU, summer 2009.
2. Dennis Gucker (U. Northern Colorado), REU, summer 2009.
3. Joshua Keller (Emory University), REU, summer 2009.
4. Jonathan Daraie (UW), NSF funds, summer 2007.
5. Tyler Miller (UW), NSF funds, summer 2007.
6. Mikal Grant (UW), NSF funds, summer 2006.
7. Mike Bostik, (UW) Honors program, thesis supervision, spring 2006

Committee thesis membership

1. Tilsa Aryeni, (PhD), member, UW, Mathematics, Current.
2. Mellissa Butler, (MS), member, UW, Mathematics, Current.
3. Cidne Bernhardt, (MS), Outside member, UW, Civil and Architectural Engineering, 2020.
4. Yulong Li, (PhD), member, UW, Mathematics, 2019.
5. Pramila Adhikari, (PhD), Outside member, UW, Civil Engineering, 2019.
6. Roshani Aryal, (MS), Outside member, UW, Civil and Architectural Engineering, 2018.
7. Asma Akhter (MS), Outside member, UW, Computer Science, 2018.
8. Leanne Dong (PhD), Outside referee, University of Sydney, 2018.
9. Margherita Zanella (PhD), Outside referee, University of Pavia, 2017.
10. Alexandra-Aurelia Neamtu (PhD), Outside referee, University of Iena, Germany), 2017.
11. Zikai Xu (MS-Non thesis), Electrical and Computer Engineering, 2017.
12. Tesfalem Abate Tegegn (PhD), Outside referee, 2017, Pretoria (South Africa).
13. Dongyang Kuang (PhD), 2016, Mathematics (UW)

14. Chandana Wijeratne (Ph.D), Chair, 2011, Mathematics (UW).
15. Mackay, Alex (M.S), 2011, Engineering (UW).
16. Silvia Popa (Ph.D), 2009, Mathematics (UW).
17. Chandana Wijeratne (M.S), Chair, 2008, Mathematics (UW).
18. Manna Utpal (Ph.D), 2007, Mathematics (UW).
19. Prescho Michael (M.S), 2005, Mathematics (UW).

VISITING RESEARCH POSITIONS

- 18-26 July 2019: SNS Pisa, host: Franco Flandoli.
- 2 May-30 June 2019: University of Jena, host: Bjorn Schmalfuss.
- 3-8 June 2019: University of Seville, host: Maria Jose Garrido- Atienda.
- 19-23 April 2019, University of York (UK), Host: Zdislaw Brzezniak.
- 3-23 Mar 2019: Oberwolfach, Germany (Research in Pairs).
- 5-28 Feb 2019: University of Pavia, host: Benedetta Ferrario.
- 21-23 Dec 2016: University of Padova, host: David Barbato.
- 18-21 Dec 2016: University of Pavia, host: Benedetta Ferrario.
- 5-10 June 2016: University of Jena, host: Bjorn Schmalfuss.
- 14-19 June 2015: University of Sevilla, host: Maria Jose Garrido- Atienda.
- 03-12 June 2015: University of Jena, host: Bjorn Schmalfuss.
- 17-30 May 2015: University of Pisa, host: Franco Flandoli.
- 17-24 January 2015: University of Pavia, host: Benedetta Ferrario.
- 30 October-5 November 2014: IPAM, UCLA.
- 20-27 August 2014: Yildiz Technical University, host: Boumediene Hamzi.
- June 2013, July 2014: Kaust (Saudia Arabia), host: Institute of Porous Media.
- 17 June-19 July 2013: Kaust (Saudia Arabia), host: Institute of Porous Media.
- 14-15 June 2013: University of Guelma (Algeria), host: Hisao Fujita-Yashima.

- 03-07 June 2013: University of Leoben (Austria), host: Erika Hausenblas.
- 26 May-01 June 2013: University of Padova (Italy), host: David Barbato.
- 12-25 May 2013: University of Pisa (Italy), host: Franco Flandoli.
- 10 September-10 December 2012: IMA Minneapolis, MN.
- 15 May-28 June 2012: University of Paderborn (Germany), host: Bjorn Schmalfuss.
- 1-12 May 2012: University of Pisa (Italy), host: Franco Flandoli.
- 1-30 April 2012: University of Pavia (Italy), host: Benedetta Ferrario.
- 12-30 March, 1-18 July 2012: Paris 1 Pantheon Sorbonne, host: Annie Millet.
- 10 January-10 March 2012: Ecole Polytechnique Federale de Lausanne (Switzerland).
- 9-18 May 2011: University of Sevilla, Spain. host: Maria Garrizo-Azienda.
- 8-26 June 2010: Isaac Newton Institute, Cambridge (UK).
- 1-31 October 2009: SAMSI, Durham.
- 1-30 June 2008: Paris 1 Pantheon Sorbonne, host: Annie Millet.
- 12-22 December 2008, 6-27 June 2006 and 13-31 May 2005: University of Pisa, host: Franco Flandoli.
- 9-22 October 2006: University of California at Irvine, host: Edriss Titi.
- 1-21 July 2002: University of York, host: Zdzislaw Brzezniak.

SELECTED INVITED TALKS

Talks at University seminars

1. Probability seminar, Penn State, Nov 20th, 2020.
2. Analysis seminar, UW, October 26th, 2020.
3. Joint Analysis and Computational and Applied Mathematics Seminar, UW, March 9, 2020.
4. Probability seminar, Pisa, July 25th, 2019.
5. Probability seminar, Jena, June 20th, 2019.
6. Probability Midland seminar, Oxford, April 25th, 2019.

7. Probability seminar, York, April 23rd, 2019.
8. Analysis seminar, University of Wyoming, April 8th, 2019.
9. Partial Differential Equations Seminar, Las Vegas, April 5th, 2019.
10. Probability seminar, Pavia, February 20th, 2019.
11. Partial Differential Equations Seminar, Pittsburgh, Jan 14th, 2019.
12. Partial Differential Equations Seminar, Texas A&M, Dec 4th, 2018.
13. Applied Math seminar, CSU (Fort Collins), May 5th 2017.
14. Colloquium, Auburn University, Alabama, January 20th, 2017.
15. Colloquium, University of Tennessee, Knoxville, November 18th, 2016.
16. Probability Seminar, Purdue University, Lafayette, November 8th, 2016.
17. Probability Seminar, Colorado University, Boulder, September 30th, 2016.
18. Stochastic Seminar Colloquium, University of Jena, June 7th, 2016.
19. Applied Math seminar, Bloomington, Indiana University, November 9th 2015.
20. Stochastic Seminar Colloquium, University of Jena, June 10th, 2015.
21. Applied Math Colloquium, NJIT, February 13th 2015.
22. Applied Math seminar, CSU (Fort Collins), October 16th 2014.
23. Probability seminar, Rochester, April 25th 2014.
24. Analysis/Applied/Computational seminar, UW, February 18th 2014.
25. Applied Math seminar, Guelma (Algeria), June 15th 2013.
26. Applied Math seminar, Leoben (Austria), June 4th 2013.
27. Probability seminar, Padova (Italy), May 29th 2013.
28. Probability seminar, Pisa (Italy), May 3rd 2012.
29. Paris 1 Pantheon Sorbonne, March 16th 2012.
30. EPFL, Stochastic Analysis and Applications Program (3 lectures), February 24th, March 2nd and 9th 2012.
31. Differential Equations Seminar, Seville (Spain), May 10th, 2011.

32. Isaac Newton Institute Seminar, Cambridge, June 21st 2010.
33. Applied Math, Paderborn, May 31st 2010.
34. Colloquium, Oregon, April 27th 2009.
35. Applied Math Seminar, CSU Fort Collins, October 16th 2008.
36. Samos-Matisse seminar, Paris I, June 13th and 27th 2008.
37. Institute Seminar, Bloomington, Indiana, October 31st 2007.
38. PDE/Applied Math seminar, University of Wyoming, October 23rd 2007.
39. Nonlinear PDE's, University of California at Irvine, (3 lectures), October 10th, 13th and 20th 2006.
40. Applied Math Seminar, University of California at Irvine, October 16th 2006.
41. Analysis seminar, University of Wyoming, September 5th 2006.
42. Applied Math Seminar, CSU Fort Collins, March 30th 2006.
43. ISC Seminar, University of Wyoming, October 2005.
44. Analysis seminar, University of Wyoming, October 2004.
45. Colloquium, Turin (Italy), June 2004.
46. Colloquium, University of Wyoming, 2003.
47. Colloquium, Hull (U.K), November 2001, July 2002.
48. Colloquium, Paris XIII (France), September 2001.

Invited Conference talks

1. Workshop on "Vortex Filaments", Fields institute, Toronto, November 2-6, 2020.
2. Special session on PDEs, data, and inverse problems, AMS, Salt Lake City, October 24-25, 2020.
3. Special session on Recent advances in the theory of fluid dynamics, AMS, Salt Lake City, October 24-25, 2020.
4. Special session on Theoretical and Computational Studies of PDEs Related to Fluid Mechanics, AMS, El Paso, September 12-13, 2020.

5. The Big Tent: Talks for Mathematical Scientists In honor of Professor Myron Allen's retirement, UW, September 14-18, 2020
6. International Webinar on Dynamical Systems and its Applications, Coimbatore, India, August 17-21, 2020
7. Mini-symposium on "Applicable and numerical analysis and control theory for fluid and fluid-structure PDE models", SIAM, Palm Springs, December 10-14, 2019.
8. Mini-symposium on "Asymptotic of random PDEs", SIAM, Palm Springs, December 10-14, 2019.
9. Stochastic Fluid Dynamics, Hausdorff Institute for Mathematics, Bonn, Nov 11-15, 2019.
10. Recent trends in stochastic analysis and SPDEs, University of Pisa, July 18-20th, 2019.
11. LMS Research School, Mathematics of Climate, University of Reading, July 8-12th, 2019.
12. Special session on "Stochastic Analysis and Related Fields", AMS, Hartford (CT), April 13-14, 2019.
13. Theoretical and Applied Stochastic Analysis, Banff, Oaxaca (Mexico), September 9-14, 2018.
14. Regularity and Blow-up of Navier-Stokes Type PDEs using Harmonic and Stochastic Analysis, August 19-24, 2018.
15. Stochastic Dynamics on Graphs, SIAM Annual Meeting, Oregon, July 9-13, 2018.
16. Recent developments and in stochastic dynamics and stochastic analysis, CIMPA school, Hanoi (Vietnam), March 5-18, 2018.
17. Nonlinear PDEs in fluid dynamics: Deterministic and Probabilistic approaches, SIAM, Baltimore, December 9-12, 2017.
18. PDEs in Fluid Dynamics: Analysis and Computations, SIAM, Fort Collins, September 30-October 1, 2017.
19. Stochastic Lattice Differential Equations and Applications, Banff, September 10-17, 2017.
20. Mathematical Congress of the Americas, Montreal (Canada), July 24-28, 2017.
21. 5th International Conference on Random Dynamical Systems, Wuhan (China), June 24-27, 2017.
22. Rocky Mountain Partial Differential Equations, BYU, May 18-19, 2017.

23. Essence of $(u \cdot \nabla u)$: Reflections on Mathematical Fluid Dynamics, University of Virginia, May 12-13, 2017.
24. Stochastic PDEs: Analysis and Computation, Warwick (UK), March 27-31, 2017.
25. Special session on "Aspects of PDE Arising from Modeling of the Flows in Porous Media", AMS, Denver, October 8-9, 2016.
26. International Workshop on Recent Advances in Evolutions Equations and Applications, Auburn, July 8–9, 2016.
27. Special session "Dynamics of evolutionary equations in the applied sciences", The 11th AIMS conference on dynamical systems, differential equations and applications, Orlando, July 1–5, 2016.
28. Stochastic Partial Differential Equations and Applications - X, Levico Terme (Italy), May 29- June 4, 2016.
29. Workshop "Stochastic Partial Differential Equations", the Simons Center for Geometry and Physics (Stony Brook), May 16-20, 2016.
30. Special session on "Topics in Stochastic Partial Differential Equations", AMS, Salt Lake City, April 8-9, 2016.
31. Mini-symposium on "Random and Complex Dynamics of Reaction-Diffusion Systems", JMM, Seattle, January 6–9, 2016.
32. Mini-symposium on "Fluid Models, Turbulence and Data Assimilation", SIAM, Arizona, December 7-10, 2015.
33. Minisymposium on "Data assimilation for PDE models", SIAM, Arizona, December 7-10, 2015.
34. ICIAM Mini-symposium on "Multi scale methods with applications in fluid mechanics and materials modeling", Beijing (China), August 10-14, 2015.
35. The 4th International Conference on Random Dynamical Systems, Xian (China), June 27-30, 2015.
36. One day workshop on Deterministic and Stochastic PDEs, University of Sevilla, June 18th, 2015.
37. AWM Research Symposium "Many facets of probability", University of Maryland, April 11-12, 2015.
38. Special session "Stochastic Analysis and Applications", AMS, Alabama, March 27-28, 2015.

39. Special session "Stochastic Analysis and Stochastic PDEs", AMS, Washington DC, March 7-8, 2015.
40. SIAM Minisymposium on Partial Differential Equations and Applications, Joint Mathematics Meetings, San Antonio, January 10-13, 2015.
41. Mathematical Analysis of Turbulence, IPAM (UCLA), September 29 – October 3, 2014.
42. Special session "Stochastic and Deterministic Dynamical Systems and Applications", The 10th AIMS conference on dynamical systems, differential equations and applications, Madrid, July 7-11, 2014.
43. Special session "Infinite Dimensional Stochastic Systems and Applications", The 10th AIMS conference on dynamical systems, differential equations and applications, Madrid, July 7-11, 2014.
44. Special Session on Stochastic and PDEs (AMS), Albuquerque (NM), April 5-6, 2014.
45. Infinite dimensional stochastic systems: Theory and applications, Wittenberg (Germany), January 13-16, 2014.
46. Stochastic Partial Differential Equations and Applications - IX, Trento (Italy), January 5-11, 2014.
47. Siam Conference on Analysis of PDEs, Orlando (Florida), December 6-10, 2013.
48. 36th Conference on Stochastic Processes and their Applications, Boulder, July 29-August 2, 2013.
49. Probability and PDE's, Pisa (Italy), May 20-24, 2013.
50. AWM Research Symposium, Santa Clara, March 16-17, 2013.
51. Geophysical Fluid Dynamics, Oberwolfach, February 13-17, 2013, (Chair of session).
52. Random Dynamical Systems, IMA Minneapolis, October 22-26 2012.
53. Recent Developments in Stochastic Analysis, EPFL (Lausanne), January 30-February 3rd 2012.
54. Siam Conference on Analysis of PDEs, San Diego (California), November 14-17 2011.
55. Applied Analysis and Applied PDEs, Victoria (Canada), July 12-15 2011.
56. Second International Conference on Random Dynamical Systems, Nanjing (China), June 20-22 2011.

57. AMS Sectional Meeting, Interdisciplinary Session on Deterministic and Stochastic Partial Differential Equations, Las Vegas, April 30- May 1st, 2011.
58. AMS Sectional Meeting, Interdisciplinary Session on Deterministic and Stochastic Partial Differential Equations, Notre Dame Indiana, November 5-7, 2010.
59. The 8th AIMS conference on dynamical systems, differential equations and applications, Dresden, May 25-28, 2010.
60. Stochastic Partial Differential Equations and their Applications, Isaac Newton Institute Cambridge, March 29th- April 1st, 2010, (Poster).
61. Analysis and Computation of Incompressible Fluid Flow, IMA Minneapolis, February 22-26, 2010, (Chair of a session).
62. SIAM Conference on Analysis of Partial Differential Equations, Miami Florida, December 7-10, 2009, (30mn).
63. AMS Meeting-Baylor University, Interdisciplinary Session on Deterministic and Stochastic Partial Differential Equations, Waco Texas, October 16-18, 2009, (30mn).
64. AMS Southeastern sectional meeting, Gaussian Analysis and Stochastic Partial Differential Equations, Huntsville Alabama, October 24-26 2008, (45mn).
65. Rocky Mountain Conference on Dynamical Systems, Park City UT, May 12-16, 2008
66. Transport Systems in Geography, Geosciences and Networks, IPAM, Los Angeles, 5-9 May 2008.
67. 32nd Conference on Stochastic Processes and their Applications, Urbana-Champaign, 6-10 August 2007, (25mn talk)
68. SIAM Conference on "Application of Dynamical Systems", Snowbird, Utah, 28 May-1st June 2007, (25 mn talk).
69. Mathematical Issues in Stochastic Approaches for Multi scale Modeling, MSRI Berkeley, 21-25 May 2007, (45mn talk).
70. Stochastic Dynamical Systems and Climate Modeling, Banff International Research Center, Canada, 15-20 April 2007, (45mn talk)
71. AMS Western Sectional Meeting, University of Utah, 7-8 October 2006, (45mn talk)
72. Asymptotic Analysis in Stochastic Processes, Wayne University, 15-17 September 2006, (25mn talk).
73. SIAM annual meeting, Boston, 10-14 July 2006, (25mn talk).

74. Stochastic Partial Differential Equations and Environmental and Geophysical modeling, Summer School, University of Wyoming, June 2005, (40mn talk).
75. Stochastic Analysis, Random Fields and Applications, Ascona Switzerland, May 2005, (45mn talk).
76. Theory and Application of Stochastic Differential Equations, AMS Special Meeting, Lubbock, April 2005, (25mn talk).
77. Deterministic and stochastic Navier-Stokes equations, Palo Alto, March 2005, (40mn talk).
78. Probabilistic Methods in fluids, University of Swansea, April 2002, (45mn talk).
79. Percolation, particle systems and other stochastic processes, University of Milan, October 2001, (40mn talk).
80. Workshop on Stochastic PDE's and related fields, University of Warwick, July-August 2001, (45mn talk).
81. Probabilistic description in 3D fluids, University of Barcelone, July 2000, (25mn talk).
82. Stochastic Processes with spatial structure, University of Verona, April 2000, (40mn talk)
83. SPDE's & Applications, Levico Terme Italy, January 2000, (Poster Session).
84. Workshop on Deterministic and stochastic Fluid mechanics II, University of Turin, University of Potenza Italy, October 1999, (45mn talk).
85. Workshop on Deterministic and stochastic Fluid mechanics, University of Turin Italy, September 1998, (45mn talk).
86. Workshop on deterministic and stochastic evolutionary systems, Scuola Normale Superiore of Pisa Italy, July 1997, (50 mn talk)
87. Stochastic Partial Differential Equations and Applications - IV. University of Trento Italy, January 1997, (Poster Session).
88. Fourth International Conference on Navier-Stokes Equations and related nonlinear problems, University of Toulon France, May 1995, (45mn talk).
89. Workshop on qualitative aspects and applications of nonlinear evolution equations, I.C.T.P, Trieste, May 1993, (45mn talk).

Conference organization

- First Annual Meeting for the Northern States Section of SIAM, University of Wyoming, Sep 27-29, 2019, with Myron Allen and Saman Aryana.
- Recent trends in stochastic analysis and SPDEs, University of Pisa, July 18-20th, 2019, with Luigi Amedeo, David Barbato, Benedetta Ferrario and Marco Romito.
- Regularity and Blow-up of Navier-Stokes Type PDEs using Harmonic and Stochastic Analysis, Banff, Canada, August 19-24, 2018, with Peter Constantin, Jiahon Wu and Kazuo Yamazaki.
- Nonlinear PDEs in fluid dynamics: Deterministic and Probabilistic approaches, SIAM, Baltimore, December 9-12, 2017, with Erika Hausenblas.
- PDEs in Fluid Dynamics: Analysis and Computations, SIAM, Fort Collins, September 30-October 1, 2017, with Madga Czubak.
- Stochastic Lattice Differential Equations and Applications, Banff, September 10-17, 2017, with Xiaoying Han, Maria Garrido-Atienza and Bjorn Schmalfuss.
- Minisymposium "Recent trends on PDEs driven by Gaussian processes with applications", AIMS, Orlando, Florida, July 1-5, 2016, With Maria Garrido-Atienza.
- RMMC Summer School "Stochastic Equations for complex systems: theory and applications", UW, 27 May-6th June 2014, with Stefan Heinz, Farhad Jafari and Joe Tribbia.
- Minisymposium "Deterministic and stochastic methods in fluid mechanics", SIAM, Florida, December 2013, With Anna Mazzucato and Evelyn Lunasin.
- Minisymposium "PDEs related to fluid dynamics: Deterministic and Stochastic approaches", SIAM, San Diego, November 2011, with Gautam Iyer.
- The Second Conference on Random Dynamical Systems, Nanjing China, June 2011.
- Minisymposium "Nonlinear stochastic PDE's and applications to complex systems", SIAM, Miami, December 2009, with Bjorn Birnir.
- Minisymposium "Random dynamical systems with applications to fluid dynamics", SIAM, Utah, May 2007, with Anna Amirdjanova.

Other participation to Conferences

1. Workshop: Experimentation, Mathematical Modeling & Numerical Simulation of Porous Media Flows, UW, May 19-21, 2014.
2. Numerical Porous Media Strategic Research Initiative Center, Annual Meeting, KAUST, March 2-3, 2014.
3. Stochastic in geophysical fluid dynamics, Palo Alto, February 03-09, 2013.

4. Transport and Mixing in Complex and Turbulent Flows, IMA Minneapolis, April 12-16, 2010
5. NCAR-Wyoming Days, Boulder CO, 19-20 May 2009.
6. Analytical and Computational Challenges of Incompressible Flows at High Reynolds Number, College Park, 23-26 October 2006.
7. Stochastic Fluid Mechanics and SPDE's, Pisa, 2006.
8. Stochastic Partial Differential Equations, Vigre Mini-course, University of Utah, 8-19 May 2006.
9. Mathematical and geophysical fluid dynamics: Analytical and Stochastic methods, Palo Alto, February 2006.
10. Instructional conference on Mathematical analysis of hydrodynamics, University of Edinburgh, June 2003.

SERVICE

- Associate Editor of "International Journal of Nonlinear Sciences and Numerical Simulation", IJNSNA.
- Graduate Chair (Fall 2016-2020).
- Coordinator of the Analysis seminar (2014-2016).
- Panel reviewer and external referee for the National Science Foundation.
- Referee for: Nonlinearity, Stochastic Processes and Applications, New Journal of Physics, Journal of Physics A: Mathematical and Theoretical, Journal of Differential Equations, Discrete and Continuous Dynamical Systems: series B, Journal of Stochastic Analysis and Applications, SIAM Journal on Mathematical Analysis, Annals of Probability, Physica D, NoDEA, Journal of Mathematical Physics, Journal of Functional Analysis, Electronic Journal of Probability, Nonlinear Analysis.
- Reviewer for the AMS *Mathematical Reviews* (2003-present).
- Panel member discussion of the opening workshop on Stochastic Dynamics, August 30th-September 2nd 2009.
- Coordinator of the PDE/Applied Math Seminar, University of Wyoming, 2007-2009, and 2013-2016.
- Member of several departmental committees (Graduate, hiring, colloquium, A&S Summer Independent Study Committee).

PROFESSIONAL AFFILIATIONS

1. Member of the SIAM.
2. Member of the AMS.
3. Member of the AWM.



Medical Education

To: Search Committee

From: Juan C. Cendan, MD

Subject: FIU Associate Dean for Student Affairs Position

Date: August 2, 2020

Dear search committee members,

I respectfully submit my dossier for your consideration in your search for the next Associate Dean/ Executive Associate Dean for Student Affairs at the Herbert Wertheim College of Medicine. I have been a founding member at the University of Central Florida College of Medicine (UCF-COM) and feel a strong kinship with your program. As millennial and multicultural colleges of medicine developing in large metropolitan areas, we have traveled lock-step through a number of our most exciting milestones. From conversations I have had with Dean Robert Sackstein I know that we have also encountered similar challenges ranging from clinical placements, to coordination of student requirements across a range of partnership sites. Our faculty and staff have done yeoman's work to coordinate all of these activities as our students have engaged with the complexities of the programs.

I have carefully reviewed the job description and believe that my preparation, skills and behaviors align well with desired qualifications that you seek in this leader. My efforts in educational scholarship have been recognized with national and international awards (AAMC, AMEE), national extramural funding (NIH-R01, NSF, Macy Foundation) and participation in a variety of national organizations (NIH, USMLE, AAMC/SGEA). I have had numerous college of medicine (COM) and university (UCF/UF) administrative roles including that of assistant dean for simulation and clinical skills and director of the skills lab (10 years between UCF and UF); medical education department chairman (6 years); and voting member of the college Enterprise Leadership Council (UCF-COM central decision-making body).

I am deeply committed to personal professional development and recently completed Cornell University Executive Healthcare Leadership and Healthcare Change Management Certificate programs. At the university level I have served as a university provost fellow

working closely with UCF's Provost and President developing the structure and model for UCF's Academic Health Sciences Center (AHSC). I then served for two years as vice-President of the AHSC. Regionally I led the effort to bring the SGEA/AAMC meeting to Orlando in 2019 with co-sponsorship from all Florida Colleges of Medicine. Opportunities for collaborating across became evident at this event leading to the creation of the Florida Council of Medical Schools Deans Undergraduate Medical Education (UME) Working Group, a group which I co-chair. The work of this group has led to five Florida Colleges of Medicine (FIU included) now sharing an online publication platform on Cureus.com, numerous scholarly collaborations, as well as active exploration of solutions to UME challenges created by the COVID-19 pandemic.

I fully appreciate the challenges of a new medical school with a nascent clinical program that is not ready to financially support the educational mission. I have trained for and understand best-practices for strategic planning and have been directly involved in the budgeting process of the COM as a member of the subgroup that manages all education and general funds (EG). This body reconciles not just the budget of the MD educational program but also the budget related to our clinical enterprise, our research and basic science units, and the GME program (\$100M recurrent).

Mentorship of faculty has been a central responsibility for me and as the department chairman I have realigned our annual review and our promotion and tenure guidelines to reflect and recognize the work of the MD program faculty. It is worth noting that I focus a lot of attention on the student's evaluation of faculty teaching and have successfully mentored a number of faculty members towards more effective engagement with our students, resulting in statistical improvement in evaluation outcomes.

Mentorship, and in particular mentorship and education of medical students, is what started me on an academic trajectory. Immediately after surgical residency I had a brief hiatus in surgical private practice yet I remained a member of the UF admissions committee during that spell. The experience of those four years provides me with real-world insights into the challenges faced by our community physicians in their daily work. When I returned to the university setting, I was selected as surgery clerkship director. The medical directorship of the clinical skills and simulation center followed. I have been the sole surgeon mentoring and writing reference letters for surgery-bound students at UCF for a decade. Students and faculty members seeking a mentor find in me a fair and honest sounding board; I hold myself and others to high standards. While I rely on metrics and data, I am also sensitive to context, stressors and the impacts of the real world.

Many of my publications involve students as co-authors or as the focus of the research. Two worth mentioning were published in Academic Medicine and directly link to student progress and development. The first of these is an innovative mathematical model for identification of students at risk for failure to progress; this has now been replicated in several other medical colleges and is being used to focus resources on struggling students. The other project is centered on the idea of student identity formation and professionalism involving the use of a mobile application for recording professionalism-related events.

These projects were recognized with awards nationally and internationally. I have also served on the committee that oversees student progress and promotions. I have served as an LCME accreditation site visitor at four different medical colleges and am deeply familiar with the standards: The work associated with the student dean role are central to Standards 3 (learning environment), 10 (selection, assignment and progress), 11 (academic support and advising) and 12 (health services and counseling) while also overlapping with a number of other Standards.

FIU is a Hispanic Serving institution. I do believe that our Colleges of Medicine should make every effort to reflect the community they serve. I am very proud to be a fully bilingual Cuban immigrant who navigated Miami-Dade public schools. I had the honor to serve as the American College of Surgeons' inaugural Committee on Diversity Issues Chairman. I am currently leading the search at UCF for a new dean of diversity and inclusion and deeply believe in the potential of all students, staff and faculty. The Dean of Students can play a significant role in creating an environment that contributes to the greater goal of equity for all.

I would be remiss to not mention that much of the work we do with students is also great fun! For example, I have greatly enjoyed serving as the faculty sponsor of our arts in medicine group (talent shows, publications) and supporting student-run international interprofessional experiences – these are, indeed, some of my fondest memories. I hope that that I was able to share my experiences, enthusiasm and interest for this work with you and look forward to the opportunity to discuss how I may be able to serve FIU in this position.

This page intentionally left blank

Juan C. Cendán

University of Central Florida College of Medicine

6850 Lake Nona Blvd.

Orlando, FL 32827, U.S.A.

Phone: 407-266-1100

Email Juan.Cendan@outlook.com

ORCID LINK: [ORCID](#)

PUBLONS-WEB OF SCIENCE LINK: [Publons - Web of Science](#)

Born: October 28, 1965 - Havana, Cuba

Fluency: English & Spanish

Nationality: American

Areas of Specialization

Academic Leadership • Medical Education • Surgery

Current Positions

- 2020- CORE FACULTY, UCF AUGMENTED AND VIRTUAL REALITY CENTER EXPLORATORY GROUP. Group funded through internal mechanism to explore university and community wide AR/VR Center of Excellence.
- 2019- CO-CHAIR, UNDERGRADUATE MEDICAL EDUCATION WORKING GROUP, COUNCIL OF FLORIDA MEDICAL SCHOOL DEANS. Developed the idea for, and received approval to organize a 10-college wide consortium to support and leverage the needs and resources of Florida's UME programs. This position interacts with all current medical deans in the state and the UME representatives for each program.
- 2016- FOUNDER AND DEPUTY EDITOR, Flagship channel of [Cureus.com](#) publication platform. Now expanded to include 7 of Florida's medical schools.
- 2015- CHAIRMAN, Department of Medical Education, College of Medicine (COM), UCF. Lead a department of about 30 faculty; mentor through annual evaluation and promotion & tenure cycles; developed and revised departmental P& T materials; represent the educational mission in all budgetary discussions.

- 2014- PROFESSOR (*tenured*), UCF.
- 2013- CHAIRMAN FOR SURGICAL EDUCATION, UCF. In the absence of a formal department of surgery, I serve as the point-of-contact for all students needing advice and letters of recommendation headed towards general surgery training.
- 2013- GRADUATE FACULTY, College of Graduate Studies, UCF.
- 2012- GENERAL SURGEON, Orlando Veterans Administration Medical Center, Orlando, FL.

CURRENT EXECUTIVE LEADERSHIP RESPONSIBILITIES

1. COLLEGE OF MEDICINE ENTERPRISE COMMITTEE Voting member of COM central leadership committee, includes all positions reporting to the Dean. Participation in all College-wide cyclical activities (e.g., budget, and strategic planning) as well as consideration of *ad hoc* deliberations.
2. EXECUTIVE FACULTY COUNCIL MEMBER Voting member of Faculty Leadership Committee, includes Chairs and Directors reporting to Dean.
3. COLLEGE OF MEDICINE RESEARCH COUNCIL Voting member in core group determining direction and resource allocation for research functions at the College.
4. STANDING EDUCATIONAL COMMITTEES & RESPONSIBILITIES: *ex officio* member of MD Program Curriculum Committee; M1/M2 and M3/M4 Subcommittees of the Curriculum Committee; Core and Specialty Advising for surgical students; member of UCF-Osceola Regional Medical Center Surgical Residency Clinical Competence Committee.
5. EDUCATION & GENERAL FUNDS BUDGET COMMITTEE Voting member on committee responsible for E&G state appropriations to the COM; committee with annual as well as five-year planning responsibilities.
6. UCF HEALTH Voting member on Compensation Plan committee and in UCF Health budget committee. Currently working on new compensation plan structure that would address incentives for clinicians as well as research and education-driven faculty.

Additional Leadership & Appointments Held

- 2018-2020 ASSISTANT VICE-PRESIDENT OF ACADEMIC HEALTH SCIENCE CENTER MISSION INTEGRATION, University of Central Florida (UCF). Served in coordinating role sitting on four separate Councils (Education, Clinical, Research and Population Health) within the AHSC in effort to align projects across the councils. The position was discontinued in January of 2020 awaiting funding decision from the state.
- 2017-2018 PROVOST CHAIR, ASSOCIATE DEAN *in Residence*, Provost's Office, UCF. Year-long embedded role in the Provost's office organized around the successful creation of an Academic Health Sciences Center infrastructure for UCF. I served as program manager for this year-long effort culminating in a new academic structure including three colleges, and almost 15,000 students.
- 2014-2015 VICE-CHAIRMAN, Department of Medical Education, UCF COM. A purposeful overlapping was structured with the outgoing Chairman to facilitate leadership transition upon their planned retirement.
- 2010-2015 ASSISTANT DEAN FOR SIMULATION AND MEDICAL DIRECTOR, Clinical Skills and Simulation Center, UCF COM. The role and responsibility associated with my move to UCF in 2010. I put together the infrastructure for case and standardized patient development, trained staff, developed the cases, and organized educational and assessment sessions. As assistant dean for simulation I led the effort to expand our simulation physical plant space, its offerings and research through collaborative extramural grants.
- 2010-2014 ASSOCIATE PROFESSOR OF SURGERY (*tenured*), UCF
- 2010-2013 FOUNDING FACULTY UCF College of Medicine
- 2008-2010 ASSOCIATE PROFESSOR OF SURGERY (*tenured*), University of Florida (UF)
- 2008-2010 ASSISTANT DEAN FOR SIMULATION AND RELATED RESEARCH, UF COM
- 2007-2010 CO-DIRECTOR MINIMALLY INVASIVE SURGERY FELLOWSHIP, UF COM
- 2005-2010 MEDICAL DIRECTOR, *Harrell Center for Clinical Skills*, UF COM
- 2005-2010 SURGICAL RESIDENCY PROGRAM LEADERSHIP TEAM, UF COM
- 2006-2010 AFFILIATE PROFESSOR OF PSYCHIATRY, UF COM
- 2001-2008 ASSISTANT PROFESSOR OF SURGERY, UF COM
- 1997-2001 PARTNER, Surgical Group of Gainesville, FL

Education & Training

- 2020 EXECUTIVE HEALTHCARE LEADERSHIP PROGRAM, Cornell University, NY.
- 2003-2004 MASTER EDUCATOR IN MEDICAL EDUCATION CERTIFICATE, University of Florida, College of Medicine, Gainesville, FL.
- 1991-1997 GENERAL SURGEON, General surgery residency, UF, Gainesville, FL.
- 1993-1994 RESEARCH FELLOW, General surgery metabolism laboratory; Recipient of Surgical Oncology T32-CA09605 at UF-COM. Supervised by Drs. Lyle Moldawer and D. Scott Lind. Arginine and nitric oxide regulation in endothelial and cancer cells.
- 1987-1991 MEDICAL DOCTOR, MD University of Florida College of medicine, Gainesville, FL.
- 1983-1987 BIOMEDICAL ENGINEER, BSCE *summa cum laude*, Tulane University, New Orleans, LA.
- 1985-1986 JUNIOR YEAR VISITING SCHOLAR Queen Mary University, London, UK.

Career Development

1. CORNELL EXECUTIVE HEALTHCARE LEADERSHIP PROGRAM, ON-LINE CERTIFICATES. Two certificates completed in Program: 1) Executive Healthcare Leadership, completed July 26, 2020; 2) Healthcare Change Management, completed May 24, 2020.
2. AMEE ESSENTIALS OF MEDICAL EDUCATION LEADERSHIP (ESME LEAD) Training Course, August 23-27, 2018, Basel, Switzerland.
3. PROVOST CHAIR/ASSOCIATE DEAN IN RESIDENCE, Academic Year 2017-2018 served as Project Manager for the creation of the Academic Health Sciences Center at the University of Central Florida. This was a major university-wide initiative mobilizing and uniting three existing colleges, and dozens of programs in the health sciences.
4. ACADEMY FOR INNOVATIVE HIGHER EDUCATION LEADERSHIP, Chairs Program, Sponsored by Arizona State and Georgetown Universities, Washington, D.C. June 4-7, 2017.
5. AHRQ SHARE (SHARED CLINICAL DECISION MAKING PROGRAM) APPROACH MASTER TRAINER, April 22, 2016.

6. DEAN'S LEADERSHIP AND ENHANCEMENT PROGRAM, UCF COM, AY 2013-14.
7. SURGEONS AS LEADERS PROGRAM, American College of Surgeons Intensive Course, Chicago, IL, May 6-9, 2012.
8. DEPARTMENT CHAIR WORKSHOP, PARTS I AND II, INSTITUTE FOR ACADEMIC LEADERSHIP, Howey-in-the-Hills, FL, 2011 and 2012.
9. THE SCIENCE OF CLINICAL RESEARCH COURSE, University of Florida, October 2004.
10. MASTER EDUCATOR IN MEDICAL EDUCATION CERTIFICATE PROGRAM, University of Florida, October 2003 - April 2004.

Course Leadership

2018-2020	DEVELOPED & DELIVERED, Anatomical Case Challenges Series, M1 curricular thread, UCF
2017-2018	MODULE DIRECTOR, Arts in Medicine, fourth-year elective course, UCF
2010-2013	MODULE CO-DIRECTOR, Practice of Medicine, first-year course, UCF
2010-2013	MODULE CO-DIRECTOR, Practice of Medicine, second-year course, UCF
2002-2010	SURGERY CLERKSHIP DIRECTOR, UF COM

Notable Trainees

DOCTORAL STUDENTS

Funded by JC grants

1. Ph.D. – Salam Daher, currently *Assistant Professor* at New Jersey Institute of Technology.
2. Ph.D. - Jason Hochreiter, currently *postdoc* at UCF.
3. *Postdoc* – Regis Kopper, currently faculty at Duke University.
4. *Postdoc* – Andrea Kleinsmith, currently faculty at University of Maryland.
5. Ph.D. - Diego Rivera Gutierrez, currently at Microsoft, Hololens project.

6. Ph.D. - Andrew Robb – currently postdoc at Clemson University.
7. Ph.D. - Joon Hao Chuah – currently at Amazon.
8. Ph.D. - Rebecca Lyons – currently at Accenture.

Doctoral Committees

1. Ph.D. Committee member, Salam Daher, Modeling and Simulation, IST, awarded 2019.
2. Ph.D. Committee member, Jason Hochreiter, Modeling and Simulation, IST, awarded 2019.
3. Ph.D. Committee member, Beth Pettitt, Institute for Simulation and Training, Ph.D. awarded 2018.
4. Ph.D. Committee member, Jack Norfleet, College of Engineering, Ph.D. awarded 2018.
5. Ph.D. Committee member, Ramsamooj (“Javier”) Reyes, College of Education, Instructional Design, awarded Ph.D. Spring 2016.
6. Ph.D. Committee member, Candidate Alyssa Tanaka, Modeling and Simulation, IST, 2015, Ph.D. awarded.
7. Ph.D. Committee member, Candidate Rebecca Lyons, Industrial and Organizational Psychology, IST, 2013.
8. *ex officio* Committee member for Ph.D. Candidate Joel Palathinkal, Modeling and Simulation, IST, 2011.

MEDICAL & SURGICAL FELLOWS OR MENTEES

1. Hiren Patel, MD: Received Best Poster Award, Inaugural Society for Hospital Medicine (SHM) conference, Orlando, FL 2019.
2. Alexander Parr, MD: Private practice in Ft. Lauderdale, FL.
3. Rami Awad, MD: Private practice in Palm Springs, CA.
4. James Lopes, MD: Mixed clinical and academic practice in Indianapolis, IN.

Awards

1. Thomas Hale Ham “New Investigator Award”, Association of American Medical Colleges, Boston, November 2018.
2. ”Best Research Paper”, AMEE International Association for Medical Education, Basel, Switzerland, August 2018.
3. “Best Surgeons” and “Best Doctors” in America recognition, 2008, 2011-2016.
4. “Best Doctors” in Orlando recognition, 2010-2016.
5. “Award for Guidance” from the Charter Class (2013), UCF 2011.
6. College of Medicine ”Outstanding Clinical Faculty” Award, UF 2009-2010.
7. ”Exemplary Teacher” Award, UF College of Medicine, 2002–2004, 2006-2010.
8. “Customer Key” Patient-care Award, Shands Hospital 2006 and 2007.
9. Educational Incentive Award Recipient, Academic year 2006-2007.
10. “STAR”, Shands Hospital, Clinical Excellence Recognition Award, 2003-2004.
11. Outstanding Faculty Award, University of Florida, General Surgery, 2002.
12. Edward Woodward Surgical Resident Award, University of Florida, General Surgery, 1997.
13. Outstanding Teaching Resident Award, University of Florida, General Surgery, 1997.
14. Best Oral Presentation at Association of Veterans Administration Surgeons, Pittsburgh, Pennsylvania, 1995.
15. Grant Awardee, Ross Laboratories/Society for Surgery of the Alimentary Tract Resident and Fellows Research Conference Participant New Orleans, Louisiana, May 1994.

16. Resident/Fellow award for Best Poster at 47th Annual Cancer Symposium of the Society of Surgical Oncology, Houston, Texas, March 17-20, 1994.
17. Alpha Omega Alpha, Medical Honor Society, University of Florida, 1993.
18. Outstanding Surgical Intern, Ray S. Bierstedt Award, University of Florida, General Surgery, 1991-1992.
19. Omicron Delta Kappa, National Honor Society, Tulane University, 1987.
20. Tau Beta Pi, National Engineering Honor Society, Tulane University, 1987.

Service

MEMBERSHIPS

American Association for the Advancement of Science; American College of Surgeons; American College of Surgeons, Florida Chapter; American Medical Association; Florida Medical Association; Association for Academic Surgery; Association of American Medical Colleges; Association for Medical Education in Europe; National Defense Industrial Association; Woodward Surgical Society; Society for Simulation in Healthcare.

SERVICE TO PROFESSION

Current

1. COUNCIL OF FLORIDA MEDICAL SCHOOL DEANS Co-Chairman for the Undergraduate Medical Education Working Group (2019-present).
2. AMERICAN ASSOCIATION OF MEDICAL COLLEGES Co-Chair for Annual Southern Group on Educational Affairs (SGEA) Annual Meeting, Orlando, FL 2019; Simulation in Academic Medicine Interest Group member; Research in Medical Education Reviewer (2011,2012,2013); Representative for UF to Faculty Forward Program (2009).

3. UNIVERSITY OF FLORIDA, WOODWARD SURGICAL SOCIETY Board of Directors, Annual Program Chair, & President (2016-17).
4. AMEE - INTERNATIONAL MEDICAL EDUCATION ASSOCIATION Board member of publication journal AMEE MedEdPublish (2017-present); Session moderator (2018: Basel, Switzerland).
5. FLORIDA GULF COAST UNIVERSITY BIOMEDICAL ENGINEERING BOARD Member.
6. LIAISON COMMITTEE ON MEDICAL EDUCATION, LCME Site visitor (accreditation site-visit team member at 4 national MD programs).
7. SIMULATION IN HEALTHCARE Editorial board of Journal (active); Committee on research (inactive).
8. AMERICAN COLLEGE OF SURGEONS: Committee on Applicants Interviewer (2014-present); Regional Chair (2017-present); Committee on Diversity Issues (member 2002-2007 and Chairman 2004-2006); Liaison to Academic Program Committee (2005).
9. AMERICAN BOARD OF SURGERY Oral examiner (2010); Contributor-editor for Qualifying exam assessment (2009).
10. *ad hoc* REVIEWER BMJ Quality and Safety, ISRN Surgery, Journal of the American College of Surgeons, Annals of Surgical Oncology, Advances in Medical Education and Practice, Advances in Physiology Education, Medical Education, Journal of Surgical Education, MedEdPublish, MedEdPortal, Simulation in Healthcare.

Past or Completed

1. IEEE-SERIOUS GAMES AND APPLICATIONS FOR HEALTH CONFERENCE, program submission reviewer.
2. NATIONAL BOARD OF MEDICAL EXAMINERS Step 2CS Standards setting (2016); Professionalism work group (2013).
3. EDGE INNOVATIONS NETWORK (GENERAL DYNAMICS – DEPARTMENT OF DEFENSE GROUP) Representative; simulation inter-operability.
4. FLORIDA HEALTHCARE SIMULATION ALLIANCE, Advisory Board.

5. REVIEWER 5th International Conference on Virtual, Augmented and Mixed Reality in the context of HCI International 2013.
6. SESSION LEADER Surgical Simulation Workshop, IMSH/SSIH Annual Congress, January 25th, 2011.
7. *ad hoc* GRANT PANEL REVIEWER Scientific Peer Advisory and Review Services (SPARS) division of the American Institute of Biological Sciences (AIBS); Review panel for Joint Program Committee 1 (JPC-1) Medical Training and Health Information Sciences Research Program's – Medical Practice Initiative-Augmented Reality for Medical Applications: April 2013, 2016, 2017 and 2019; Sciences and Engineering Research Council of Singapore: 2009 and 2010; University of Florida, College of Medicine, COMCEC Grants: Reviewer 2005, 2006.

UNIVERSITY OF CENTRAL FLORIDA SERVICE

Current

1. STUDENT INTEREST GROUP ADVISOR: Arts in Medicine - Work product from this effort includes Annual Arts in Medicine Journal (Script), and Annual Talent/Holiday Show (2014-present); Surgical Interest Group (2016-present).
2. UCF BIOMEDICAL ENGINEERING Master's in Biomedical Engineering development task force; Ph.D. Program working group; BMES Chair search committee 2012.
3. ALPHA OMEGA ALPHA HONOR SOCIETY: Committee member (2013-current).

Past or Completed

1. GRADUATE RESEARCH FORUM JUDGE UCF Research Week 2013-2015.
2. MODELING AND SIMULATION GRADUATE PROGRAM, Curriculum sub-committee member, 2013-2014.
3. MD PROGRAM ADMISSIONS COMMITTEE Voting member 2013-2016.

4. UCF LEADERSHIP 5-YEAR REVIEW COMMITTEES: Dean, Nursing School, Spring 2013; and Director, Burnett School of Biomedical Sciences, 2011-12.
5. TOP LEADERSHIP SEARCH COMMITTEES: Chief Finance Officer COM (2018); Chief Operating Officer UCF Health (2018); Inaugural Dean UCF CHPS (2018); Associate Dean for Clinical Affairs (2016); Chair for Healthcare Simulation IST (2015); ACP for Health Information Technologies (2013); Associate Dean for Research (2013).
6. LCME INTERNAL REVIEW Chair, Medical Education Program Self-Study review group; Co-chair, Mock Interview Team; Member, working group on "Narrative Feedback;" Co-chair, Resources subcommittee (2012 and 2017).
7. GRADUATE MEDICAL EDUCATION COMMITTEE Voting member (2012-14).
8. PROFESSIONALISM TASK FORCE Chair (2013).
9. INTERNAL AWARDS COMMITTEES Research Incentive Committee member (2011, 12) and Chair (2013).
10. *ad hoc* COMMITTEES: Accommodations review; Technology usage fee.

University of Florida

1. Admissions Committee, University of Florida, College of Medicine, January 2009–June 2010.
2. Surgical Representative to the University of Florida Faculty Council, 2008-2010.
3. Surgical Clerkship Director, July 2007–2010; Clerkship Committee, 2001-2010.
4. Graduate Medical Education: Surgery Residency Program Steering Committee, 2002-2010; UF Institutional Graduate Medical Education Committee, 2001-2005; Surgery department representative to College-level GME.
5. College of Medicine Curriculum Committee: Voting member, July 2008–June 2010; *ad hoc* member, October 2005–June 2008; Associate Clerkship Director January 2007–July 2007.

6. Community Representative, UF Medical School Admissions Committee, 1999-2004.
7. Task Force Subcommittee for the Revision and Development of UF-COM Mission and Curriculum.

SERVICE TO COMMUNITY

1. Cornell Fine Arts Museum – Rollins College Board of Visitors Member, February 2017–present.
2. Winter Park Public High School Chaperone for Men’s Rowing and Marching Band; Board Member, Crew Team.
3. COM Performances – Annual talent show classical guitar 2011-2018; Jacaré Brazil – College of music guitar ensemble 2004-2010.

Contracts & Grants

Grant Funding

Table 1: Impact of 13 Competitive Grants

Grant source	Total award, \$
National (NIH, NSF)	\$4,121,430
Regional	\$134,303
Industry	\$420,000
Total grant support	\$4,675,733
JC direct grant support (UCF only)	\$936,141

NATIONAL FUNDED GRANTS

Title	1. Physical-Virtual Patient Bed for Healthcare Training and Assessment.
Funding agency	NSF:CHS/Medium IIS1564065
Amount; years	\$ 894,431; 2016-2019
Collaborators	Greg Welch (PI) and JC Cendán (co-PI) and Laura Gonzalez (co-PI)

- | | |
|-----------------|---|
| Title | 2. Safety instruction and competency assessment for laparoscopy. |
| Funding agency | NIH-NIBIB RO1: EB018625 |
| Amount; years | \$ 841,749; 2014-2018 |
| Collaborators | Jorg Peters (PI) and JC Cendán (co-PI) |
| | |
| Title | 3. Development and Evaluation of a Mobile Medical Professionalism Assessment Application. |
| Funding agency | IMAP - Josiah Macy Foundation |
| Amount; years | \$ 100,000; 2014-2016 |
| Collaborators | Juan Cendán (PI) |
| | |
| Title | 4. Neurological Exams Teaching Evaluation Using Virtual Patients. |
| Funding agency | NIH - Library of Medicine R01: LM010813 |
| Amount; years | \$ 1,716,477; 2010-2014 |
| Collaborators | Juan Cendán (PI) and Ben Lok (PI) |
| | |
| Title | 5. Dynamic Contextual Factors that Affect the Expression of Humanistic Attributes in Medicine: A Systematic Review. |
| Funding agency | Arnold P. Gold Foundation |
| Amount; years | \$ 5,000; 2014-2015 |
| Collaborators | Caridad Hernandez (PI) and JC Cendán (co-PI) |
| | |
| Title | 6. Immersive virtual patients with abnormal clinical conditions for medical student education. |
| Funding agency | NIH-NLM RO3: LM009646 |
| Amount; years | \$ 183,125; 2008-09 |
| Collaborators | Ben Lok (PI); JC Cendán (co-PI) |
| | |
| Title | 7. Preserving a hands-on knowledge base of essential but rare surgical procedures. |
| Funding agency | NIH-NIBIB R21: EB005765 |
| Amount; years | \$ 380,648; 2007-2008 |
| Collaborators | Jorg Peters (PI) and JC Cendán (co-PI) |
| | |
| REGIONAL GRANTS | |
| | |
| Title | 8. Exploratory Effort Aimed at a Center for Virtual and Augmented Reality for Healthcare. |
| Funding agency | Office of Research, University of Central Florida |
| Amount; years | \$ 65,803; 2019-Feb 2021 |
| Collaborators | G Welch and C Cruz-Neira (PIs), JC Cendán and others (co-investigators) |

- | | |
|----------------|---|
| Title | 9. Computer Based Exercises for Students and Residents Learning to Create Wound Closures. |
| Funding agency | Chapman Foundation, UF |
| Amount; years | \$ 1,900; 2006-2007 |
| Collaborators | JC Cendán (PI) |
| Title | 10. Developing Computer Models of Surgical Thread and Tying Knot for Linear and Circular Anastomosis Exercises. |
| Funding agency | Chapman Foundation, UF |
| Amount; years | \$ 2,400; 2006-2007 |
| Collaborators | JC Cendán (PI) |
| Title | 11. Virtual Suture Point Selection Exercise for Students and Residents Learning to Create Wound Closures and Anastomosis. |
| Funding agency | Chapman Foundation, UF |
| Amount; years | \$ 4,200; 2006-2007 |
| Collaborators | JC Cendán (PI) |
| Title | 12. Toolkit for illustration of procedures in surgery (TIPS). |
| Funding agency | UF COM Seed funds |
| Amount; years | \$ 60,000; 2004-2005 |
| Collaborators | JC Cendán (PI) |

INDUSTRY-SPONSORED GRANTS

- | | |
|----------------|---|
| Title | 13. Development of a Surgical Instrument Simulator. |
| Funding agency | Tyco Corporation, US Surgical |
| Amount; years | \$ 20,000; 2004-2005 |
| Collaborators | JC Cendán (PI) |
| Title | 14. Screened Health Assessment Pacer Evaluation (SHAPE trials) multi-institutional phase III trial. |
| Funding agency | Medtronic, St. Paul, MN. |
| Amount; years | \$ 400,000; 2005-2007 |
| Collaborators | Mark Gold (PI) and JC Cendán (co-PI) |

Impact of Publications

Table 2: Impact of Peer-reviewed Publications (February 2020).

Data source	<i>h</i> -index	times cited	other
Web of science (author=j Cendán)	23	1464	<i>n</i> =92
Google scholar	29	2824	<i>i 10</i> -index=55
NIH iCite (<i>n</i> =72)			Rel Cit Ratio =0.91±0.13

References

*

Peer Reviewed Journals

1. Daher, S, Hochreiter, J, Schubert, R, et al. The Physical-Virtual Patient Simulator: A Physical Human Form with Virtual Appearance and Behavior. *Simulation in Healthcare* (2020) 15:115-121, April, 2020. doi: 10.1097/SIH.0409 2020.
2. Hirumi, A, Kay, D, Daines, B, and Cendan, J. What do instructional designers and educational psychologists need to know to work effectively in medical education? *J Appl Instr Des* 2020;9:3–19.
3. Hirumi, A, Daroowalla, F, Harris, D, et al. Exploring students' use and the potential impact of commercial-off-the-shelf products on students' NBME and NBOME exam performance: A focused BEME systematic review (Protocol). *Best Evidence Medical and Health Professional Education*. Available online 12 Dec 2019: <https://bemecollaboration.org/Reviews+In+Progress/NBME+and+NBOME+exam+performance> 2019.
4. Lesch, H, Johnson, E, Peters, J, and Cendán, J. VR Simulation Leads to Enhanced Procedural Confidence for Surgical Trainees. *J Surg Ed*. Available online 26 Aug 2019: <https://doi.org/10.1016/j.jsurg.2019.08.008>. 2019.

5. Pasarica, M, Bailey, M, and Cendan, J. Increasing Students' Publication Productivity: Could Launching a University Scientific Journal be a Catalyst? *Cureus* 11(1): e3953. doi:10.7759/cureus.3953, 2019.
6. Reimer, D, Russell, R, Khallouq, B, et al. Pre-Clerkship Medical Students' Perception of Medical Professionalism. *BMC Medical Education* (2019) 19:239 <https://doi.org/10.1186/s12909-019-1629-4> 2019.
7. Cendán, JC, Joledo, O, Soborowicz, MB, Marchand, L, and Selim, BR. Using Assessment Point Accumulation as a Guide to Identify Students at Risk for Interrupted Academic Progress. *Academic Medicine* 2018;93:1663–1667.
8. Cendán, JC and Simms-Cendán, JS. Wanted: Effective Followers in Surgery. *Annals of surgery* 2018;267:619–620.
9. Kauffman, CA and Cendan, J. The Effect of Participation in a Small-Group Discussion Session on Medical Student Learning of Intestinal Pathophysiology. *Medical Science Educator* 2018;28:309–313.
10. Cendán, JC, Castiglioni, A, Johnson, TR, et al. Quantitative and qualitative analysis of the impact of adoption of a mobile application for the assessment of professionalism in medical trainees. *Academic Medicine* 2017;92:S33–S42.
11. Kurenov, S, Cendan, J, Dindar, S, et al. Surgeon-Authored Virtual Laparoscopic Adrenalectomy Module Is Judged Effective and Preferred Over Traditional Teaching Tools. *Surgical innovation* 2017;24:72–81.
12. Hirumi, A, Johnson, T, Reyes, R, et al. Advancing virtual patient simulations through design research and interPLAY: part II—integration and field test. Article (PDF Available) in *Educational Technology Research and Development* · 2016:000.
13. Hirumi, A, Kleinsmith, A, Johnsen, K, et al. Advancing virtual patient simulations through design research and interPLAY: part I: design and development. *Educational Technology Research and Development* 2016;64:763–785.
14. Reimer, D, Russell, R, Bellew, C, Hernandez, C, Cendan, J, and Castiglioni, A. Understanding medical students' perceptions of medical professionalism at difference stages of medical education. *Journal of general internal medicine* 2016;31:S446–S446.
15. Cendan, J, Hernandez, C, and Castiglioni, A. Using visual radar graph representation of learner achievement to complement the RIME framework. *Academic Medicine* 2015;90:1425.

16. Golden, AG, Silverman, MA, Heller, A, Loyal, M, and Cendan, J. potential Conflicting Interests for Surgeons in End-of-life Care. *American Journal of Hospice and Palliative Medicine®* 2015;32:763–766.
17. Gorman, L, Castiglioni, A, Hernandez, C, Asmar, A, Cendan, J, and Harris, D. Using preclinical high-fidelity medical simulations to integrate pharmacology and physiology with clinical sciences. *Medical Science Educator* 2015;25:521–532.
18. Harris, D, Bellew, C, Asmar, A, Cendan, J, and Johnson, T. High Fidelity Patient Simulations (HFPS) in Medical Physiology Improve Non-Cognitive Skills in First Year Medical Students. *The FASEB Journal* 2015;29:687–16.
19. Kleinsmith, A, Rivera-Gutierrez, D, Finney, G, Cendan, J, and Lok, B. Understanding empathy training with virtual patients. *Computers in human behavior* 2015;52:151–158.
20. Reinemann, J, LaBell, K, Bellew, C, Asmar, A, Cendán, J, and Harris, DM. Integration and improvement of teamwork skills in first year medical students by using physiology-based high fidelity patient simulations. *Medical Science Educator* 2015;25:503–512.
21. Gorman, AL, Gros, B, Johnson, T, and Cendan, J. Incorporation of autonomic pharmacology into high fidelity simulated cardiopulmonary critical care scenarios improves cardiopulmonary pharmacology assessment performance (719.3). *The FASEB Journal* 2014;28:719–3.
22. Harris, DM, Bellew, C, Cheng, ZJ, Cendán, JC, and Kibble, JD. High-fidelity patient simulators to expose undergraduate students to the clinical relevance of physiology concepts. *Advances in physiology education* 2014;38:372–375.
23. Harris, D, Bellew, C, Asmar, A, Cendan, J, Gonzalez, L, and Johnson, T. The effect of student-observer-led or faculty-led debriefing on learning teamwork and communication skill during high fidelity patient simulation scenarios (719.2). *The FASEB Journal* 2014;28:719–2.
24. Johnson, TR, Lyons, R, Kopper, R, Johnsen, KJ, Lok, BC, and Cendan, JC. Virtual patient simulations and optimal social learning context: A replication of an aptitude–treatment interaction effect. *Medical teacher* 2014;36:486–494.

25. Lyons, R, Johnson, TR, Khalil, MK, and Cendán, JC. The impact of social context on learning and cognitive demands for interactive virtual human simulations. *PeerJ* 2014;2:e372.
26. Cendan, J, Wier, D, and Behrns, K. A primer on standards setting as it applies to surgical education and credentialing. *Surgical endoscopy* 2013;27:2631–2637.
27. Gorman, AL, Gros, B, and Cendan, J. Teaching of 2nd year medical school autonomic pharmacology in simulated shock experiences. *The FASEB Journal* 2013;27.
28. Hernandez, C, Lewis, A, Castiglioni, A, Selim, B, and Cendan, J. OSCE standards-setting procedure facilitated by digital technology. *Medical education* 2013;47:1132–1132.
29. Johnson, TR, Lyons, R, Chuah, JH, Kopper, R, Lok, BC, and Cendan, JC. Optimal learning in a virtual patient simulation of cranial nerve palsies: The interaction between social learning context and student aptitude. *Medical teacher* 2013;35:e899–e907.
30. Ben-David, K, Sarosi, GA, Cendan, JC, Howard, D, Rossidis, G, and Hochwald, SN. Decreasing morbidity and mortality in 100 consecutive minimally invasive esophagectomies. *Surgical endoscopy* 2012;26:162–167.
31. Cendan, J and Lok, B. The use of virtual patients in medical school curricula. *Advances in physiology education* 2012;36:48–53.
32. Lin, C, Laserna, C, Lind, DS, et al. User response to the simulation of a virtual patient with cranial nerve injury. *Bio-Algorithms and Med-Systems BAMS* 2012;8:1.
33. Rivera-Gutierrez, D, Welch, G, Lincoln, P, et al. Shader lamps virtual patients: The physical manifestation of virtual patients. *Studies in health technology and informatics* 2012;173:372–378.
34. Simms-Cendan, J, Cendan, J, Boardman, L, Voorhees, D, Eakins, M, and Merritt, D. The clinical breast exam: a video and animation enhanced self-learning module. *MedEdPORTAL Publications* 2012;8:9131.
35. Winfield, RD, Delano, MJ, Cuenca, AG, et al. Obese patients show a depressed cytokine profile following severe blunt injury. *Shock (Augusta, Ga.)* 2012;37:253.
36. Ben-David, K, Rossidis, G, Zlotecki, RA, et al. Minimally invasive esophagectomy is safe and effective following neoadjuvant chemoradiation therapy. *Annals of surgical oncology* 2011;18:3324–3329.

37. Cendan, JC and Johnson, TR. Enhancing learning through optimal sequencing of web-based and manikin simulators to teach shock physiology in the medical curriculum. *Advances in physiology education* 2011;35:402–407.
38. Cendan, JC, Silver, M, and Ben-David, K. Changing the student clerkship from traditional lectures to small group case-based sessions benefits the student and the faculty. *Journal of surgical education* 2011;68:117–120.
39. Cendan, J and Johnson, T. Advanced physiologic simulations within the medical curriculum demand specific sequencing and curricular coordination. *FASEB journal* 2011;25S.
40. Ezzell, Z, Fishwick, PA, and Cendan, J. Linking Simulation and Visualization Construction through Interactions with an Ontology Visualization. *Proceedings of the 2011 Winter Simulation Conference* 2011:2921–2932.
41. Filichia, L, Halan, S, Blackwelder, E, et al. Description of web-enhanced virtual character simulation system to standardize patient hand-offs. *Journal of Surgical Research* 2011;166:176–181.
42. Howard, DD, Caban, AM, Cendan, JC, and Ben-David, K. Gastroesophageal reflux after sleeve gastrectomy in morbidly obese patients. *Surgery for Obesity and Related Diseases* 2011;7:709–713.
43. Peden, M, Chuah, J, Kotranza, A, Johnsen, K, Lok, B, and Cendan, J. NERVE—a three dimensional patient simulation for evaluating cranial nerve function. *MedEd-PORTAL Publications* 2011.
44. Welch, G, Rivera-Gutierrez, D, Lincoln, P, et al. Physical manifestations of virtual patients. *Simulation in Healthcare* 2011;6:488.
45. Ben-David, K, Kissane, N, Rossidis, G, et al. Minimally Invasive Esophagectomy (MIE) is Safe and Effective Following Neoadjuvant Chemoradiation (NACR) Therapy. *Annals of surgical oncology* 2010;17:S128–S128.
46. Ben-David, K, Sarosi, GA, Cendan, JC, and Hochwald, SN. Technique of minimally invasive Ivor Lewis esophagogastrectomy with intrathoracic stapled side-to-side anastomosis. *Journal of Gastrointestinal Surgery* 2010;14:1613–1618.

47. Filichia, L, Blackwelder, E, Halan, S, Rossen, B, Lok, B, and Cendan, J. Using Virtual Characters to Standardize Patient Hand-Offs in Surgical Training Programs-Description of a Novel System. *Journal of Surgical Research* 2010;158:317–318.
48. Kotranza, A, Cendan, JC, Johnsen, K, and Lok, B. Simulation of a virtual patient with cranial nerve injury augments physician-learner concern for patient safety. *Bio-Algorithms and Med-Systems* 2010;6:25–34.
49. Vincent, HK, Ben-David, K, Cendan, J, Vincent, KR, Lamb, KM, and Stevenson, A. Effects of bariatric surgery on joint pain: a review of emerging evidence. *Surgery for Obesity and Related Diseases* 2010;6:451–460.
50. Winfield, RD, Delano, MJ, Dixon, DJ, et al. Differences in outcome between obese and nonobese patients following severe blunt trauma are not consistent with an early inflammatory genomic response. *Critical care medicine* 2010;38:51.
51. Winfield, RD, Delano, MJ, Lottenberg, L, et al. Traditional Resuscitative Practices Fail to Resolve Metabolic Acidosis in Morbidly Obese Patients Following Severe Blunt Trauma. *The Journal of trauma* 2010;68:317.
52. Kissane, NA and Cendan, JC. Patients with Cushing's syndrome are care-intensive even in the era of laparoscopic adrenalectomy. *The American surgeon* 2009;75:279–283.
53. Kurenov, S, Punak, S, PETERS, J, Lee, C, and Cendan, J. Development and Initial Validation of a Virtual Reality Haptically Augmented Surgical Knot-Tying Trainer for the Autosuture™ ENDOSTITCH™ Instrument. *Studies in health technology and informatics* 2009;142:145.
54. Warner, EA, Ben-David, K, Cendan, JC, and Behrns, KE. Laparoscopic pancreatic surgery: What now and what next? *Current gastroenterology reports* 2009;11:128–133.
55. Castellano, JJ, Warren, MW, Arroyo, MR, and Cendan, JC. Laparoscopic resection of a virilizing adrenocortical tumor. *JSLs: Journal of the Society of Laparoendoscopic Surgeons* 2008;12:343.
56. Cendan, JC and Filichia, LA. QS90. Transplant Recipients Respond Well to Gastric Stimulation for The Management of Gastroparesis. *Journal of Surgical Research* 2008;144:303.

57. Filichia, LA, Baz, MA, and Cendan, JC. Simultaneous fundoplication and gastric stimulation in a lung transplant recipient with gastroparesis and reflux. *JSLs: Journal of the Society of Laparoendoscopic Surgeons* 2008;12:303.
58. Filichia, LA and Cendan, JC. Small case series of gastric stimulation for the management of transplant-induced gastroparesis. *Journal of Surgical Research* 2008;148:90–93.
59. Scott, DJ, Cendan, JC, Pugh, CM, Minter, RM, Dunnington, GL, and Kozar, RA. The changing face of surgical education: simulation as the new paradigm. *Journal of Surgical Research* 2008;147:189–193.
60. Cendan, J and Birkmeyer, J. Addressing disparities in surgical care. *Bulletin - American College of Surgeons* 2007;92:23.
61. Cendan, J, Kim, M, Kurenov, S, and Peters, J. Developing a multimedia environment for customized teaching of an adrenalectomy. *Surgical endoscopy* 2007;21:1012–1016.
62. Kazory, A, Cendan, JC, Hollen, TL, and Ross, EA. Primary malfunction of a peritoneal dialysis catheter due to encasement in an encapsulating sheath. *Peritoneal Dialysis International* 2007;27:707–709.
63. Cendan, J and Hocking, M. Erosion of gastric pacemaker lead into small bowel. *Surgery for obesity and related diseases: official journal of the American Society for Bariatric Surgery* 2006;2:531–532.
64. Cendán, JC and Good, M. Interdisciplinary work flow assessment and redesign decreases operating room turnover time and allows for additional caseload. *Archives of surgery* 2006;141:65–69.
65. Feezor, RJ, Nelson, PR, Lee, WA, Zingarelli, W, and Cendan, JC. Laparoscopic repair of a type II endoleak. *Journal of Laparoendoscopic & Advanced Surgical Techniques* 2006;16:267–270.
66. Kurenov, SN, Punak, S, Kim, M, Peters, J, and Cendan, JC. Simulation for Training With the Autosuture TM Endo StitchTM Device. *Surgical innovation* 2006;13:283–287.
67. McAuliffe, PF, Gold, MS, Bajpai, L, et al. Second-hand exposure to aerosolized intravenous anesthetics propofol and fentanyl may cause sensitization and subsequent opiate addiction among anesthesiologists and surgeons. *Medical hypotheses* 2006;66:874–882.

68. Stevens, A, Hernandez, J, Johnsen, K, et al. The use of virtual patients to teach medical students history taking and communication skills. *The American Journal of Surgery* 2006;191:806–811.
69. Camp, R, Feezor, R, Kasraeian, A, et al. Sentinel lymph node biopsy for ductal carcinoma in situ: an evolving approach at the University of Florida. *The breast journal* 2005;11:394–397.
70. Cendán, JC, Coco, D, and Copeland III, EM. Accuracy of intraoperative frozen-section analysis of breast cancer lumpectomy-bed margins. *Journal of the American College of Surgeons* 2005;201:194–198.
71. Cendán, JC, Abu-aouf, D, Gabrielli, A, et al. Utilization of intensive care resources in bariatric surgery. *Obesity surgery* 2005;15:1247–1251.
72. Kim, M, Punak, S, Cendan, J, Kurenov, S, and Peters, J. Exploiting graphics hardware for haptic authoring. *Studies in health technology and informatics* 2005;119:255.
73. Liu, Y, Cendan, JC, Frost-Pineda, K, James, GA, and Gold, MS. Functional MRI detection of brain changes related to effectiveness of bariatric surgery as treatment for obesity. *Surgery for Obesity and Related Diseases* 2005;1:264.
74. McAuliffe, P, Efron, P, Scumpia, P, et al. Circulating monocyte and dendritic cell phenotypes in patients undergoing laparoscopic versus open gastric bypass surgery reveals differences in activation of innate immunity. *Obesity surgery* 2005;15:938–938.
75. McAuliffe, PF, Efron, PA, Scumpia, PO, et al. Varying blood monocyte and dendritic cell responses after laparoscopic versus open gastric bypass surgery. *Obesity surgery* 2005;15:1424–1431.
76. Benda, RK, Cendan, JC, Copeland, EM, et al. Should decisions on internal mammary lymph node irradiation be based on current lymphoscintigraphy techniques for sentinel lymph node identification? *Cancer* 2004;100:518–523.
77. Benda, RK, Mendenhall, NP, Lind, DS, et al. Breast-conserving therapy (BCT) for early-stage breast cancer. *Journal of surgical oncology* 2004;85:14–27.
78. Camp, E, Cendan, J, Feezor, R, Lind, D, et al. The hottest sentinel lymph node is not always the positive node. *The American surgeon* 2004;70:475.

79. Cendan, JC, Thomas IV, JB, Seeger, JM, Richardson, JD, et al. Twenty-one Cases of Aortoenteric Fistula: Lessons for the General Surgeon/Discussion. *The American surgeon* 2004;70:583.
80. Coco, D, Cendan, J, and Copeland, EM. Intra-operative analysis of lumpectomy margins: How effective and at what cost? *Journal of the American College of Surgeons* 2004;199:86–87.
81. Richardson, J, Spencer, D, and Cendan, J. Twenty-one cases of aortoenteric fistula: Lessons for the general surgeon-Discussion. *The american surgeon* 2004;70:77.
82. Cendan, J, Benda, R, Feezor, R, et al. Breast lymphoscintigraphy: How are we treating patients with internal mammary node drainage? *Annals of surgical oncology* 2003;10:S59–S59.
83. Chow, CE, Cendan, JC, Herrmann, G, Richardson, L, and Benda, RK. Metastatic lobular breast cancer presenting with malignant ascites: case report and review of literature. *The breast journal* 2003;9:414–416.
84. Lind, DS and Cendan, JC. Two decades of student career choice at the University of Florida: increasingly a lifestyle decision. *The American Surgeon* 2003;69:53.
85. Feezor, RJ, Kasraeian, A, Copeland III, EM, Schell, SR, et al. Sequential dermal-peritumoral radiocolloid injection for sentinel node biopsy for breast cancer: The University of Florida experience/Discussion. *The American Surgeon* 2002;68:684.
86. Cendan, JC, Topping, DL, Pruitt, J, Snowdy, S, Copeland III, EM, and Lind, DS. Inflammatory mediators stimulate arginine transport and arginine-derived nitric oxide production in a murine breast cancer cell line. *Journal of Surgical Research* 1996;60:284–288.
87. Cendan, JC, Zlotecki, RA, and Vauthey, JN. Biliary tract cancer. *Current opinion in gastroenterology* 1996;12:460–465.
88. Cendan, JC, Souba, WW, Copeland, EM, and Lind, DS. Increased L-arginine transport in a nitric oxide-producing metastatic colon cancer cell line. *Annals of surgical oncology* 1996;3:501–508.
89. Edwards, P, Cendan, JC, Topping, DB, et al. Tumor Cell Nitric Oxide Inhibits Cell Growth in Vitro, but Stimulates Tumorigenesis and Experimental Lung Metastasis in Vivo. *Journal of Surgical Research* 1996;63:49–52.

90. Vauthey, JN, Marsh, RdW, Cendan, J, Chu, NM, and Copeland, E. Arterial therapy of hepatic colorectal metastases. *British journal of surgery* 1996;83:447–455.
91. Cendan, JC, Souba, WW, Copeland III, EM, and Lind, DS. Cytokines regulate endotoxin stimulation of endothelial cell arginine transport. *Surgery* 1995;117:213–219.
92. Cendan, JC, Souba, WW, Copeland, EM, and Lind, DS. Characterization and growth factor stimulation off-arginine transport in a human colon cancer cell line. *Annals of surgical oncology* 1995;2:257–265.
93. Cheng, G, Summers, G, Kelley, M, et al. Recovery of intestinal motility following end-to-end (EE) and functional end-to-end (FEE) anastomoses in the rat. *Gastroenterology* 1995;108:A1216–A1216.
94. Espat, N, Cendan, J, Beierle, E, et al. PEG-BP-30 monotherapy attenuates the cytokine-mediated inflammatory cascade in baboon *Escherichia coli* septic shock. *Journal of Surgical Research* 1995;59:153–158.
95. Lind, D, Cendan, J, Copeland, E, and Souba, W. Nutrition for the cancer patient. *Contemporary surgery* 1995;47:17–26.
96. Cendan, J, High, R, and Howard, R. *E. coli* splenic abscess. *Contemporary surgery for residents* 1994;2:17–18.
97. Cendan, J, Souba, W, Copeland, E, and Lind, D. 4. L-arginine transport is increased in a nitric oxide producing metastatic colon cancer cell line. *The American Journal of Surgery* 1994;167:444.
98. Cendan, JC, Moldawer, LL, Souba, WW, Copeland, EM, and Lind, DS. Endotoxin-induced nitric oxide production in pulmonary artery endothelial cells is regulated by cytokines. *Archives of Surgery* 1994;129:1296–1300.
99. Cendan, JC, Hocking, MP, Woodward, ER, and Rout, WR. Conversion of jejunoileal bypass to Silastic ring vertical gastroplasty. *Obesity surgery* 1991;1:363–367.
100. Thompson, M, Shukla, S, Cendan, J, and Williams, C. Correction Factors for Dual Energy Acquisition - Validation for Simultaneous Determination of ERPF and GFR Differential Rates. *Journal of nuclear medicine* 1988;29:2028.

PEER-REVIEWED PROCEEDINGS

1. Daher, S, Hochreiter, J, Norouzi, N, Schubert, R, Bruder, G, Gonzalez, L, Anderson, M, Diaz, D, Cendán, J, Welch, G. Matching *vs.* Non-Matching Visuals and Shape for Embodied Virtual Healthcare Agents. IEEE Virtual Reality Conference Proceedings, 2019: 886-887.
2. Rivera-Gutierrez, DJ, Kopper, R, Kleinsmith, A, Cendán, J, Finney, G, and Lok, B. Exploring gender biases with virtual patients for high stakes interpersonal skills training. In: International Conference on Intelligent Virtual Agents . Springer, Cham. 2014:385–396.
3. Rivera-Gutierrez, D, Kleinsmith, A, Johnson, T, Lyons, R, Cendán, J, and Lok, B. Towards a Reflective Practicum of Embodied Conversational Agent Experiences. In: Advanced Learning Technologies (ICALT), 2014 IEEE 14th International Conference on . IEEE. 2014:694– 698.
4. Lin, C, Laserna, C, Lind, DS, et al. Effectiveness of Simulating a Cranial Nerve Examination Using a Virtual Patient and the Nintendo Wiimote (R). In:Neurology. Vol. 76. 9. Lippincott-Williams, Philadelphia, PA. 2011:A381–A381.
5. Halan, S, Rossen, B, Cendán, J, and Lok, B. High score!-motivation strategies for user participation in virtual human development. In: International conference on intelligent virtual agents. Springer, Berlin, Heidelberg. 2010:482–488.
6. Kalaria, C, Lin, C, Johnsen, K, et al. Teaching Cranial Nerve Examination Using a Virtual Patient and the Nintendo Wiimote (R): Preliminary Evaluation. In: Neurology. Vol. 74. 9. Lippincott Williams, Philadelphia, PA. 2010:A25–A25.
7. Rossen, B, Cendán, J, and Lok, B. Using virtual humans to bootstrap the creation of other virtual humans. In: International Conference on Intelligent Virtual Agents. Springer, Berlin, Heidelberg. 2010:392–398.
8. Kotranza, A, Johnsen, K, Cendán, J, Miller, B, Lind, DS, and Lok, B. Virtual multi-tools for hand and tool-based interaction with life-size virtual human agents. In: 3D User Interfaces, 2009. 3DUI 2009. IEEE Symposium on. IEEE. 2009:23–30.
9. Myles, A, Yeo, YI, Kim, M, Cendán, JC, Kurenov, S, and Peters, J. Interactive peritoneum in a haptic surgery illustration environment.

- In: Medicine Meets Virtual Reality 17: NextMed: Design For/the Well Being. Editor: Westwood, JD. 2009:221-223. IOS Press.
10. Punak, S, Kim, M, Myles, A, Cendan, J, Kurenov, S, and Peters, J. Fatty tissue in a haptic illustration environment. In: Medicine Meets Virtual Reality 16. Studies in Health Technology and Informatics, IOS Press 2008;132:384–386.
 11. Kim, M, Ni, T, Cendan, J, Kurenov, S, and Peters, J. A Haptic-enabled toolkit for illustration of procedures in surgery (TIPS). In: Medicine Meets Virtual Reality 15. Studies in Health Technology and Informatics, IOS Press 2007;125:209.

BOOK CHAPTERS AND INVITED WORKS

1. Hirumi, A, Lok, BCL, Johnson, TR, et al. NERVE, InterPLAY, and Design-Based Research: Advancing Experiential Learning and the De-sign of Virtual Patient Simulation. Learning, Design, and Technology: An Interactional Compendium of Theory, Research, Practice, and Policy, Springer, Lake Mary, FL 2018:1–50.
2. Cendán, J. Quantitative and qualitative analysis of the impact of adoption of a mobile application for the assessment of professionalism in medical trainees. In: Report from a Convening of Grantees on Educating and Training to Professionalism. Ed. by Jou, JY. New York, NY: Josiah Macy Jr. Foundation, 2018:168–174.
3. Alvarez, A and Cendán, JC. The obese patient in the critical care unit. In: Civetta, Taylor and Kirby's Critical Care, 4th edition. Ed. by Gabrielli, A, Layon, AJ, and Yu, M. Philadelphia, PA: Lippincott, Williams and Wilkins, 2017:1489–1504.
4. Reed, MJ, DeAntonio, AM, Alvarez, A, and Cendán, JC. The morbidly obese patient in the critical care unit, 5th edition. In: Civetta, Taylor and Kirby's Critical Care. Ed. by Layon, AJ, Gabrielli, A, Yu, M, and Wood, KE. Philadelphia, PA: Lippincott, Williams and Wilkins, 2017:747–752.
5. Grobmyer, S, Cendán, J, and Copeland, E. Excisional breast biopsy of palpable lesions. In: Master Techniques in General Surgery: Breast Surgery 2012, Pages 221-249. ISBN: 978-145114806-0;978-160547428-1.

6. Cendán, JC and Behrns, KE. Associated Neoplastic Disease in Inflammatory Bowel Disease. *Surgical Clinics of North America* 2007;87. Current Management of Inflammatory Bowel Disease:659–672.
7. Cendán, JC and Behrns, KE. Neoplasia relacionada con la enfermedad inflamatoria intestinal. *Clinicas quirurgicas de Norteamerica* 2007:659–672. (Spanish translation of work)
8. Cendán, J and Schell, R. Adrenalectomy. In: *Advanced therapy in minimally invasive surgery*. Ed. by Talamini, MT. Ontario, Canada: BC Decker, 2006:303–310.
9. Cendán, J and Copeland, E. Breast Cancer: Cellular, Biochemical and Molecular Markers. In: *Current Surgical Therapy*. Ed. by Cameron, J. Philadelphia, PA: Elsevier-Mosby, 2004:628–632.
10. Howard, R and Cendán, J. Diseases transmitted in the operating room. In: *Critical Issues in Operating Room Management, Current Surgical Therapy*. Ed. by Malangoni, MA. Philadelphia, PA: Lippincott-Raven, 1997:151–178.

PATENTS

1. Communication and skills training using interactive virtual humans. US Patent 9,978,288. Lok, BCL, Lind, DS, Cendán, JC, et al. 2018.
2. Devices and methods for implementing endoscopic surgical procedures and instruments within a virtual environment. US Patent 8,956,165. Kurenov, S, Cendán, JC, Peters, J, et al. 2015.
3. Devices and methods for utilizing mechanical surgical devices in a virtual environment. US Patent 8,834,170. Kurenov, SN, Cendán, JC, and Peters, J. 2014.
4. Devices and Methods for Adjustable, Knotless Tissue Approximation. World Patent WO2007147057A3. Cendán, JC and Helmig, R. 2006.

Professional Presentations

PEER-REVIEWED INTERNATIONAL PRESENTATIONS

1. Daher, S, Hochreiter, J, Norouzi, N, Schubert, R, Bruder, G, Gonzalez, L, Anderson, M, Diaz, D, Cendán, J, Welch, G. Matching *vs.* Non-Matching Visuals and Shape for Embodied Virtual Healthcare Agents. Poster Presentation: IEEE Virtual Reality Conference, March 23-27, 2019, Osaka, Japan.
2. Cendán JC, Joleto O, Soborowicz MB, Marchand L, Selim BR. Identifying medical students at risk for academic interruption using a growth-curve paradigm – AMEE International Medical Education Conference, August 23, 2018, Basel, Switzerland.
3. Learning and Forgetting in Medical Education. Cendán, JC. Pecha Kucha, AMEE - International Association for Medical Education, Barcelona, Spain, 30, August 2016.
4. Rivera-Gutierrez D, Kleinsmith A, Johnson T, Lyons R, Cendán J, Lok B. Towards a reflective practicum of embodied conversational agent experiences. Paper presented at the 14th IEEE International Conference on Advanced Learning Technologies, July 7-10, 2014, Athens, Greece.
5. Simulation of a Virtual Patient with Cranial Nerve Injury Augments Physician-Learner Concern for Patient Safety. Kotranza A, Cendán JC, Johnsen K, Lok B. Oral Session Presentation 28 April 2010, Med-Biquitous Annual International Conference, London, England.
6. Teaching cranial nerve examination using a virtual patient and the nintendo wiimote: preliminary evaluation. Chandni Kalaria, Chen Lin, Kyle Johnsen, D Scott Lind, Aaron Kotranza, Candelario Laserna, Tia Aryal, Hevil Shah, J Ned Pruitt, Bayard Miller, Juan Cendán, Benjamin Lok. *Neurology*. vol. 74, no. 9, supp. 2, pp. A25, 2 March 2010. Presented at American Academy of Neurology, April 12-17, Toronto, Canada.
7. Cytokines mediate endotoxin stimulation of nitric oxide production in pulmonary endothelium. Cendán JC, Souba WW, Copeland EM III, Lind DS. Oral presentation at 14th annual meeting of the Surgical Infection Society, Toronto, Canada, April 27-30, 1994.

PEER-REVIEWED NATIONAL OR REGIONAL PRESENTATIONS

1. Moran-Bano C, Marchand L, Beiler R, Cendán JC, Hernandez C, and Castiglioni A. SimRounds as a Tool to Ease the Transition to the

- Clinical Years. Poster presentation: Southern Group on Educational Affairs, AAMC, March 28-30, 2019, Orlando, FL.
2. Hiren, P, Borgan, S, Subhani, N, Cendán, J. Indeed a hARSH cough! - Poster presentation: North Florida division's Society of Hospital Medicine Conference, January 26, 2019, Jacksonville, FL.
 3. Bailey M, Pasarica M, Cendán J – Oral presentation: Launching a journal as a catalyst for increasing student publication record – International Association of Medical Science Educators - June 9-12, 2018, Las Vegas, NV.
 4. Cendán JC, Castiglioni, A. and Johnson, T.R. and Eakins, M. and Verduin, M.L. and Asmar, A. and Metcalf, D. and Hernandez, C. Quantitative and Qualitative Analysis of the Impact of Adoption of a Mobile Application for the Assessment of Professionalism in Medical Trainees. RIME Presentations, AAMC National Congress, Boston, MA, November 2017.
 5. Wellings E, Cowan M, Simms-Cendán J, Cendán J. "Development of an integrated electronic textbook using iBook Author and interactive clinical cases" Joint SGEA/SGSA/SOSR Meeting, April 19–23, 2017, Charlottesville, VA.
 6. Understanding Medical Students' Perceptions of Medical Professionalism at Different Stages of Medical Education. Freeman D, Reimer I, Bellew C, Hernandez C, Cendán J, Castiglioni A, UCF College of Medicine, Poster presented at the Sixth Annual Focused Inquiry Research Experience Conference, UCF, Orlando, FL, February 15, 2017.
 7. Griffin A, Bailey M, Berry A, Cendán JC. Developing and online presence: A review of tools that facilitate professional development. American Association of Medical Colleges, November 2016, Seattle, WA.
 8. Teresa R. Johnson, Michael Eakins, David Metcalf, Juan C. Cendán. A web-based mobile application to facilitate recording and formative discussion of the attributes of professionalism in a medical education environment: Development and deployment in a pilot study. MedBiquitous Conference, May 16, 2016, Baltimore, MD.
 9. Reimer D, Russell R, Bellew CA, Hernandez C, Cendán JC, Castiglioni AC. Understanding medical students' perceptions of medical professionalism at different stages of medical education. Plenary presenta-

- tion at 2016 Southern Regional Meeting of the Society for General Internal Medicine (S-SGIM), Feb. 18-20, 2106, Atlanta, GA.
10. Hernandez CA, Andrews A, Cendán JC, Kibble J. Effective curriculum integration: A faculty perspective at the course level. Oral presentation at the Association of American Medical Colleges annual congress, November 11th, 2015, Baltimore, MD.
 11. Gorman LA, Gros B, Johnson T, Cendán J. Incorporation of autonomic pharmacology into high fidelity simulated cardiopulmonary critical care scenarios improves cardiopulmonary pharmacology assessment performance. Poster presented at the 2014 Annual Meeting of the American Society for Pharmacology and Experimental Therapeutics, April 26-30, 2014, San Diego, CA.
 12. Harris DM, Asmar A, Bellew C, Cendán J, Johnson T, Reinemann J. High-fidelity patient simulations improve teamwork and communication skills in first-year medical students. Poster presented at the 15th International Meeting on Simulation in Healthcare, January 10-14, 2015, New Orleans, LA.
 13. Use of Multidisciplinary Simulation to Increase Second Year Medical Student Awareness of Medication Error. Gorman L, Hernandez C, Castiglioni A, Cendán JC. Group on Educational Affairs Poster Session, American Association of Medical Colleges Annual Congress, November 2013.
 14. Using simulation to increase safety-oriented thinking and empathy in medical school education: a pilot study. Morgan J, Johnson K, Bogart K, Cordar A, Cendán JC. Poster at the David Paulus Poster Symposium, Florida Medical Association, July 27, 2013, Orlando, FL.
 15. A Hands-on Session on Performance Standard-Setting for Surgical Educators. Johnson TR, Voorhees D, Cendán JC. Workshop presentation at the 2013 Association of Program Directors of Surgery, Annual Meeting, April 26, 2013, Orlando, Florida.
 16. Application of the borderline regression standard setting method: Determining a defensible pass-fail score for OSCE stations using checklists and global rating scales completed by SPs. Castiglioni A, Hernandez C, Johnson TR, Hayne K, Cendán JC. 2013 Workshop at Southern Group on Educational Affairs, April 18, 2013, Savannah, GA.

17. Understanding how ultrasound technology promotes student attention during instruction of the physical exam. Hernandez C, Bellew C, Tirado A, Payer A, Monroe M, Cendán JC. The American Institute of Ultrasound in Medicine (AIUM) Scientific Program Committee Scientific E-Poster at the 2013 AIUM Annual Convention, April 6-10, NY, NY.
18. Evolution of Clinical Anatomy with Ultrasonography – Past, Present, and Future. Payer A, Bellew C, Hernandez C, Cendán JC, Tirado-Gonzalez A. First Conference on Ultrasound in Anatomy and Physiology Education, Columbia, SC. March 22-23, 2013.
19. Medical Students Prefer Unguided over Guided Communication for History-Taking Rehearsal in a Virtual Patient Environment. Johnson TR, Lyons R, Kopper R, Johnsen KJ, Lok B, Cendán JC. Poster at Society for Simulation in Healthcare, January 2013, Orlando, FL.
20. Optimizing Simulation Using Virtual Patients with Complex Neurologic Conditions. Lyons R, Cendán J, Lok B. Oral presentation at the 27th Annual Conference of the Society for Industrial and Organizational Psychology. Manchester Grand Hyatt San Diego, California Conference: April 26-28, 2012.
21. Team-based learners compared to individuals develop greater knowledge with less reported cognitive demand from a neurologic simulator. Lyons R, Khalil M, Johnson T, Lok B, Cendán JC. Oral presentation at Fifth International Cognitive Load Theory Conference, April 9-11, 2012, Florida State University, Tallahassee, FL.
22. Comparison of UCF COM Virtual Family Simulation Experience or reading evidence based medicine article as a learning tool. Smith K, Kravtsova A, Cendán, J and Eakins, M. FIRE Student Research oral presentations, February 2012, UCF COM.
23. Physical Manifestations of Virtual Patients. Welch G, Rivera-Gutierrez D, Lincoln P, Whitton M, Cendán JC, Chesnitt D, Fuchs H, Lok B, Skarbez R. Poster presentation 12th Annual International Meeting on Simulation in Healthcare, January 30, San Diego, CA.
24. Using Virtual Patient to Simulate Cranial Nerve Palsies: Student Reactions and Evaluation of Curricular Placement. Lyons R, Johnson T, Kotranza A, Lok B, Cendán JC. Poster presentation 12th Annual

- International Meeting on Simulation in Healthcare, January 30, San Diego, CA.
25. Improving Skill Confidence on Handovers in Medical Education. Cendán JC, Gregory M, Lazzara E, Weaver S, Lyons R, Salas E. Poster presentation 12th Annual International Meeting on Simulation in Healthcare, January 30, San Diego, CA.
 26. Linking Simulation and Visualization Construction through Interactions with an Ontology Visualization. Ezzell Z, Cendán JC, Fishwick P. A., Oral presentation at Winter Simulation Conference 2011, December 11-14, 2011, Phoenix, AZ.
 27. Understanding the relationship between cognitive load and learning in a technical medical education environment. Cendán JC, Lyons R, Chuah JH, Johnson TR, Khalil M, Lok B. AAMC Modernizing Medicine MedEdPortal Abstract Session, Denver, CO, November, 2011.
 28. Advanced physiologic simulations within the medical curriculum demand specific sequencing and curricular coordination. Cendán JC, Johnson T. Experimental Biology 2011, April 9-11, Washington, D.C. Peer reviewed poster presentation.
 29. Decreasing Morbidity and Mortality in One-hundred Consecutive Esophagectomies. Ben-David K, Sarosi GA, Cendán JC, Hochwald D, Rossidis G. SAGES 2011 Annual Meeting, March 30-April 2, 2011, San Antonio, TX. Oral Presentation.
 30. Use of a Virtual Standardized Patient as a Novel Tool to Enhance Medical Student History-Taking Skills. Madani-Sims S, Chuah J, Sims S, Davis JD, Cendán JC, Williams RS. 2011 CREOG and APGO Annual Meeting, JW Marriott San Antonio Hill Country, March 9-12, 2011.
 31. Obese Trauma Patients Show a Depressed Early Cytokine Response to Severe Blunt Injury. Winfield RD, Cuenca AG, Delano MJ, Cendán JC, Lottenberg LL, Efron PA, Maier RV, Cuschieri J, Moldawer LL. Poster presentation at the Eastern Association for the Surgery of Trauma, 24th Annual Scientific Assembly, January 25-29th, 2011, Naples, FL.

32. Current Status of Author-Directed Surgical Simulation: The Toolkit for Illustrations in Surgery. Cendán JC, Peters J, Kurenov S. Oral presentation to Interservice/Industry Training, Simulation and Education Conference 2010, Post I/ITSEC Workshop on Surgical Simulation, December 3, 2010, Orlando, FL.
33. "High Score! - Motivation Strategies for User Participation in Virtual Human Development". S Halan, B Rossen, J Cendán, B Lok. 10th International Conference on Intelligent Virtual Agents (IVA 2010), Philadelphia, Pennsylvania, Sept. 20-22, 2010.
34. Using Virtual Humans to Bootstrap the Creation of Other Virtual Humans. B Rossen, J Cendán, B Lok 10th International Conference on Intelligent Virtual Agents (IVA 2010), Philadelphia, Pennsylvania, Sept. 20-22, 2010.
35. Obese Trauma Patients Exhibit an Attenuated Early Cytokine Response to Severe Blunt Injury. Winfield RD, Delano MJ, Cuenca AG, Cendán JC, Lottenberg LL, Efron PA, Maier RV, Cuschieri J, Moldawer LL. Poster Presentation at 6th Annual Department of Surgery Research Day, April 16, 2010.
36. Minimally Invasive Esophagectomy (MIE) is Safe and Effective Following Neoadjuvant Chemoradiation Therapy. Rossidis G, Zlotecki RA, Grobmyer SR, Cendán JC, Sarosi GA, Hochwald SN. Poster Presentation at 6th Annual Department of Surgery Research Day, April 16, 2010.
37. Overcoming Barriers to Development of a Minimally-Invasive Esophagectomy Program. Ben-David KB, Rossidis G, Kissane N, Cendán JC, Sarosi G, Hochwald S. Presented Poster at Society of American Gastroenterologic Surgeons, Washington DC, April 14-17, 2010.
38. Minimally invasive esophagectomy is safe and effective following neoadjuvant chemoradiation therapy. Kfir Ben-David, George Rossidis, Robert A. Zlotecki, Stephen R. Grobmyer, Juan C. Cendán, George A. Sarosi, Steven N. Hochwald* Presented at the 63rd meeting of the Society of Surgical Oncology, March 3-7, 2010, St. Louis, MO.
39. Using Virtual Characters to Standardize Patient Hand-offs in Surgical Training Programs – Description of a Novel System. Filichia L, Halan

- S, Blackwelder E, Rossen B, Lok B, Korndorffer J, Cendán J. Presentation 38.5 at 5th Academic Surgical Congress, February 3, 2010, San Antonio, TX.
40. Teaching Cranial Nerve Examination Using a Virtual Patient and the Nintendo Wiimote®: Preliminary Evaluation. Involved Poster and Hands-On Demonstration. Lind DS, Kalaria C, Lin C, Aryal T, Laserna C, Shah H, Lord T, Pruitt JC, Lok B, Kotranza A, Cendán JC, Miller B, Johnsen K. 10th Annual International Meeting on Simulation in Healthcare (IMSH), January 23-27, 2010 in Phoenix, Arizona.
 41. Use of Virtual Patient Technology to Demonstrate Cranial Nerve Defects. Kotranza A, Halan S, Lok B, Cendán J. American Association of Medical Colleges Annual Congress Exhibit Hall, November 9-10, 2009, Boston, MA.
 42. Development of a virtual simulator for hiatal hernia repair using the Covidien/Autosuture Endostich device. Punak S, Kurenov S, Peters J, Cendán JC. Poster session at the SAGES 2009 Conference, Phoenix, AZ, April 23, 2009.
 43. Advances in educator-originated surgical simulations using TIPS. Yeo YI, Kurenov S, Peters J, Cendán JC. Poster session at the SAGES 2009 Conference, Phoenix, AZ, April 23, 2009.
 44. Validation of a virtual reality trainer for the Endostich device. Lee C, Kurenov S, Punak S, Cendán JC. Poster session at the SAGES 2009 Conference, Phoenix, AZ, April 23, 2009.
 45. The use of virtual immersive technology to teach clinical skills in the health professions. Lind DS, Kohnson K, Cendán JC, Lok B, Pugh C. Tech City presentation at the Southern Group for Educational Affairs of the AAMC, New Orleans, LA, April 2-4, 2009.
 46. Virtual Multi-Tools for Hand and Tool-Based Interaction with Life-Size Virtual Human Agents. A Kotranza, K Johnsen, J Cendán, B Miller, DS Lind, B Lok, IEEE Symposium on 3D User Interfaces 2009, Lafayette, LA, Mar. 14-15, 2009.
 47. Development and Initial Validation of a Virtual Reality Haptically Augmented Surgical Knot-Tying Trainer for the Autosuture™ ENDO STITCH™ Instrument. Kurenov S, Punak S, Peters J, Lee C, Cendán

- JC. Poster presentation at Medicine Meets Virtual Reality 17, January 19-22, 2009 Long Beach, CA
48. Interactive Peritoneum in a Haptic Surgery Illustration Environment. Myles , Yeo YI, Kim M, Cendán JC, Kurenov S, Peters J. Poster presentation at Medicine Meets Virtual Reality 17, January 19-22, 2009 Long Beach, CA.
 49. State of the Art Virtual Reality Simulator Research and Development. Cendán JC, Kurenov S, Yeo Y-I, Punak S, Kim M, Peters J. Oral presentation as part of expert symposium on “The Changing Face of Surgical Education: Simulation as the New Paradigm” at the Academic Surgical Congress, Huntington Beach, CA, February 14, 2008.
 50. Transplant Recipients Respond Well to Gastric Stimulation for the Management of Gastroparesis. Filichia L, Cendán JC. Oral presentation at Academic Surgical Congress in Huntington Beach, CA, February 13, 2008.
 51. Patients with Cushing’s Syndrome are Care-Intensive Even in the Era of Laparoscopic Surgery. Kissane NA, Cendán JC. Oral presentation at Southeastern Surgical Congress in Birmingham, AL, February 9-12, 2008.
 52. Fatty Tissue in a Haptic Environment. Punak S, Kim M, Myles A, Cendán JC, Kurenov S, Peters S. Oral presentation at Medicine Meets Virtual Reality XVI, Los Angeles, CA January 2008.
 53. Patients with Cushing’s are care-intensive Even in the Era of Laparoscopic Adrenalectomy. Kissane N, Cendán JC. Oral presentation at the University of Florida Department of Surgery Research Day, Gainesville, Florida, April 20, 2007.
 54. Development of Computer Models for Surgical thread and Knot-tying Knot Simulators for Medical Students and Residents. Kurenov S, Cendán JC. Co-author of poster presentation at the University Of Florida Department Of Surgery Research Day, Gainesville, Florida, April 20, 2007.
 55. Screened Health Assessment and Pacer Evaluation (SHAPE): The University of Florida experience of a Multicenter Clinical Trial. Montes C, Cendán JC, Gold MS. Poster presentation at The University of

- Florida College of Medicine Research Day, Gainesville, Florida, March 30, 2007.
56. Development of Computer Models for Surgical thread and Knot Tying Simulators for Students and residents. Kurenov S, Punak S, Cendán JC. Poster presentation at the University of Florida Research Celebration, Gainesville, Florida, March 20, 2007.
 57. A Haptic-enabled Toolkit for Illustration of Procedures in Surgery. M. Kim, T. Ni, Cendán JC, Kurenov S, Peters J. Oral presentation at the Medicine Meets Virtual Reality 15 Conference. Long Beach, California, February 6, 2007.
 58. Intestinal Dendritic Cells and CCR7 are Centrally Involved in the Gastrointestinal Field Effect. Koscielny A, Engel D, Wehner S, Kurts C, Kalff J. Discussant for the American College of Surgeons, Surgical Forum, Chicago, Illinois, October 10, 2006.
 59. Advances in Laparoscopic Colon and Rectal Surgery. Cendán JC. Colorectal Cancer Symposium. The University of Florida Cancer and Genetics Research Complex, Gainesville, Florida, September 9, 2006.
 60. Multimedia Environment for Customized Teaching of Surgical Procedures. Cendán JC, Kurenov S, Punak S, Kim M, Peters J. Presented at the SAGES 2006 Emerging Technologies Poster Session, Dallas, Texas, April 29, 2006.
 61. The Harrell Professional Training and evaluation Center. Cendán JC. Oral presentation for Second-Look Meeting for incoming medical student applicants. McKnight Brain Center, Gainesville, Florida, April 18, 2006.
 62. The Use of Virtual Patients to Teach Medical Students History taking and Communication Skills. Stevens A, Hernandez J, Johnsen K, Dickerson R, Raj A, Jackson J, Shin M, Cendán JC, Watson. Oral presentation at the AAMC-Southern Group on Education Affairs, New Orleans, Louisiana, February 2006.
 63. Exploiting Graphics Hardware for Haptic Authoring. Kim M, Punak S, Cendán JC, Kurenov S, Peters J. Accepted at Medicine Meets Virtual Reality, 14th Session (MMVR14). Long Beach, California, January 25-27, 2006.

64. Opiate Exposure and Addiction among Anesthesiologists and Surgeons. Frost-Pineda K, McAuliffe PF, Pomm R, Melker RJ, Morey T, Dennis DM, Cendán JC, Gold M. Society for Neuroscience Meeting, Atlanta, GA, October 14-18, 2006.
65. Utilization of Intensive Care Resources in Bariatric Surgery. Cendán JC, Abu-aouf D, Gabrielli A, Caruso LJ, Rout WR, Hocking MP, Layon AJ. Poster presentation at The American Society of Anesthesiologists, Atlanta, Georgia, October 2005.
66. Functional MRI Detection of Brain Changes Related to the Effectiveness of Bariatric Surgery as the Treatment for Obesity. Cendán JC, Gold MS. Poster presentation at the 22nd annual meeting of the ASBS, Orlando, Florida, July 2005.
67. Differences in Activation of Innate Immunity after Laparoscopic versus Open Gastric Bypass. Cendán JC, McAuliffe PF, Efron PO, Scumpia PO, Uchida T, Moldawer LL. Oral presentation at The Department of Surgery Research Day, Gainesville, Florida, June 2005.
68. Virtual Suture Point Selection Exercise for Students and Residents Learning to Create Wound Closure and Anastomosis. Baskovich B, Lloyd K, Cendán JC, Kurenov S. Poser presentation at the Department of Surgery Research Day, Gainesville, Florida, June 2005.
69. The use of Virtual Patients to Teach Medical Students History taking and Communication Skills. Stevens A, Hernandez J, Johnsen K, Dickerson R, Rajj A, Jackson J, Shin M, Cendán JC, Watson. Oral presentation for the Association for Surgical Education, New York City, New York, March 2005.
70. Addiction: An Occupational Hazard Related to the Operating Room? McAuliffe PF, Bajpai L, Merves ML, Frost-Pineda K, Pomm R, Dennis D, Goldberger BA, Morey TE, Melker R, Gold MS, Cendán JC. Presented at the Society of University Surgeons, Nashville, Tennessee, February 2005.
71. Interdisciplinary Workflow Assessment and Redesign Significantly Decreases Operating Room Turnover Time. Good ML, Cendán JC, Hartsis K, Lugrand S, Daly T. American Society of Anesthesiologists, Las Vegas, Nevada, October 27th 2004.

72. Intra-operative Analysis of Lumpectomy Margins: How Effective and at what Cost? Cendán JC, Coco D, Copeland EM III. American College of Surgeons, New Orleans, Louisiana, October 2004.
73. Aortoenteric fistula: Twenty-one Cases of Aortoenteric Fistula: Lessons for the General Surgeon. Cendán JC, Thomas JB, Seeger JM. Oral Presentation for the Association for Surgical Education, Atlanta, Georgia, March 30, 2004.
74. The Hottest Lymph Node is not always the Positive Node. Cendán JC, Camp ER, Lind DS, Wilkinson E, Copeland EM III. Oral presentation for The Southeastern Surgical Congress. February, 2004.
75. Breast Lymphoscintigraphy: How are we Treating Patients with Internal Mammary Nodal Drainage? Cendán JC, Benda RK, Feezor RJ, Mendenhall NP, Lind DS, Morris CG, Copeland EM III. Poster presentation at Society for Surgical Oncology, Los Angeles, California, March 2003.
76. Inflammatory mediators stimulate arginine transport and arginine-derived nitric oxide production in a murine breast cancer cell line. Cendán JC, Topping DL, Pruitt J, Snowdy S, Copeland EM III, Lind DS. Oral presentation at Association of Veterans Administration Surgeons meeting, Pittsburgh, Pennsylvania, April 30- May 2, 1995.
77. L-arginine transport is increased in a nitric oxide producing metastatic colon cancer cell line. Cendán JC, Souba WW, Copeland EM III, Lind DS. Poster presentation at 35th annual meeting of the Society for Surgery of the Alimentary Tract, New Orleans, Louisiana, May 15-18, 1994.
78. L-arginine transport is increased in a nitric oxide producing metastatic colon cancer cell line. Cendán JC, Souba WW, Copeland EM III, Lind DS. Oral presentation at Ninth Annual SSAT/Ross Laboratories Resident and Fellows Research Conference, New Orleans, Louisiana, May 13-14, 1994.
79. Characterization and growth factor stimulation of L-arginine transport in a human colon cancer cell line. Cendán JC, Souba WW, Copeland EM III, Lind DS. Poster presentation at 47th annual cancer symposium of the Society of Surgical Oncology, Houston, Texas, March 17-20, 1994.

80. Predictors of residency performance and career choice. Cendán JC, Lind DS, Flynn TC, Bland KI, Copeland EM III. Oral presentation at 14th annual meeting of the Association Program Directors in Surgery, Orlando, Florida, March 9-12, 1994.
81. Cytokines mediate endotoxin stimulation of endothelial arginine transport and nitric oxide synthesis. Cendán JC, Souba WW, Copeland EM III, Lind DS. Oral presentation at Society of University Surgeons 36th Annual University Surgical Residents' Conference, Jackson, Mississippi, February 12, 1994.

INVITED PRESENTATIONS

1. Workshop: Developing a Standardized Patient Program. Cendan JC, Marchena C, Castiglioni A. INSPIRE Simulation Symposium, La Plata, Argentina, November 29, 2019.
2. Presentation: Crew Resource Management Concepts in Medical Simulation. Cendan JC. INSPIRE Simulation Symposium, La Plata, Argentina, November 28, 2019.
3. Workshop: Developing a Standardized Patient Program. Cendan JC, Marchena C, Castiglioni A. INSPIRE Course for Simulation Instructors, La Plata, Argentina, November 27, 2019.
4. Simulating Patients for Healthcare Training: Appearance, Shape, Influence and Awareness. Welch G, Gonzalez L, Cendán J, and Anderson M. Serious PLAY Conference, July 25, 2019, Orlando, FL.
5. Happenstance: How Career Trajectory is Influenced by Unplanned Situations, Plenary Presentation. J Cendán. ASPE Association of Standardized Patient Educators Annual Conference June 7, 2019, Orlando, FL.
6. Innovations in Medical Education. J Cendán. Mayo Clinic Convergence 2018 Conference, February 21-23, UCF Fairwinds Alumni Center, Orlando, FL.
7. Lessons Learned from Virtual Patients and Simulation in Medical Education. J Cendán. Transformative Innovations: Biosimulation as a Disruptive Technology. Sponsored by UF College of Pharmacy. March 13, 2017. Lake Nona, Orlando, FL.

8. A Legacy of Education. J Cendán. Woodward Surgical Society 60th Anniversary Meeting. February 17, 2017. Gainesville, FL.
9. Retrieval Based Learning Strategies. J Cendán. Woodward Society Spring Meeting, Gainesville, Florida, February 26, 2016.
10. Healthy Communities. Plenary Session round-table discussion part of Better Health Through Economic Opportunity Forum, Sponsored by U.S. and Florida Chamber of Commerce and the Robert Wood Johnson Foundation. September 29, 2015. Orlando, FL.
11. Standards-Setting In Surgical Simulation. Cendán, JC. Florida Chapter of the American College of Surgeons, Annual Conference, May 18th, 2012, Sarasota, FL.
12. Simulation Will Be Part Of The Medical Certification And Credentialing Process In The Near Future. Cendán JC. Woodward Society Spring Meeting, March 16-17, 2012, University of Florida, Gainesville, FL.
13. Using On-Line Graphic Illustrations To Augment Your Curriculum. Cendán JC. Oral presentation to Southern Medical Association, November 4, 2010, Gaylord Palms, Orlando, FL.
14. Progressing from Standardized Patients to Virtual Patients in your Medical Education Curriculum. Cendán JC. Oral presentation to Southern Medical Association, November 5, 2010, Gaylord Palms, Orlando, FL.
15. Introduction to Simulation Pedagogic Evidence. Cendán JC. Oral presentation to Southern Medical Association, November 4, 2010, Gaylord Palms, Orlando, FL.
16. Surgical Simulation: Considerations for Training and More. Cendán J, Sept 17, 2011, Florida Society of General Surgeons, Orlando, FL.
17. Laparoscopic Resection of Adrenocortical Tumors and Adrenal Gland: Indications and Contraindications and Review of Technique and Results. RE Med 2010, 4th Interdisciplinary Author-directed Surgical Simulation. Cendán JC. Oral presentation at Society for Simulation in Healthcare Congress, January 25th, 2010, New Orleans, LA.

18. Distributed Learning Opportunities for Medical Education Using Portable Devices. Cendán JC, Gillum S. Opening Session Address, International Lecture, RE Med 2010, 4th Interdisciplinary International Congress, Faculdade de Ciencias Medicas de Minas Gerais, Belo Horizonte, Brazil, 27-29 October, 2010.
19. Modern Management of the Adrenal Lesion. Cendán JC. Invited lecturer at Surgical Grand Rounds, Department of Surgery, Orlando Health. Orlando, FL, 22 October 2010.
20. Complex Videolaparoscopic Surgery. Cendán JC. International Congress, Faculdade de Ciencias Medicas de Minas Gerais, Belo Horizonte, Brazil, 27-29 October, 2010.
21. Simulation Technology for Conducting and Improving Medical Education: Addressing Educational Needs with Simulation of Medical Conditions. RE Med 2010, 4th Interdisciplinary International Congress, Faculdade de Ciencias Medicas de Minas Gerais, Belo Horizonte, Brazil, 27-29 October, 2010.
22. From Simulation To The Real World: Laparoscopic Training For Colorectal Surgery. Cendán JC. Programa Cientifico da Sexta, 16 May 2008, RE-MED Conference, Belo Horizonte, Brazil.
23. Estado de Arte em adrenalectomía videolaparoscopica. (Laparoscopic adrenalectomy: The state of the art). Cendán JC. Programa Cientifico da Sexta, 16 May 2008, RE-MED Conference, Belo Horizonte, Brazil. Lecture given in Spanish.
24. Cirurgia Videolaparoscopica De Perda Do Peso: Presente e direcoes futuras. (Weight loss surgery through minimally invasive techniques: Present and future directions). Cendán JC. Programa Cientifico da Sexta, 16 May 2008, RE-MED Conference, Belo Horizonte, Brazil. Lecture given in Spanish.
25. Estado De Arte Em Adrenalectomía Videolaparoscopica. (Laparoscopic adrenalectomy: The state of the art).Cendán JC. Programa Cientifico, Hospital del Coração, 13 May 2008, Belen, Brazil. Lecture given in Spanish.
26. Meal Test and Adrenal Venous Sampling During Combined Dexamethasone suppression and CRH Stimulation to Elucidate the Cause of Cushing's Syndrome in a Challenging Patient. Kennedy L, Peters

- K, Cendán JC. Poster presentation, The Endocrine Society Annual Meeting, Toronto, Canada, June 2-5, 2007.
27. Analisis Patologico Inmediato para Conservacion de la Mama. (Frozen Section Diagnosis in the Management of Breast Cancer and in Breast Conservation therapies). Cendán JC. Oral presentation at Ginecologia de la Provincia de Buenos Aires Conjunta can XIX Jornadas, Mar del Plata, Argentina, December 2005. Lecture given in Spanish.
 28. La Mastectomia Profilactica en la era de BRCA1 y BRCA2. (Prophylactic mastectomy in the era of BRCA1 and BRCA2). Cendán JC. Oral presentation at Ginecologia de la Provincia de Buenos Aires Conjunta can XIX Jornadas, Mar del Plata, Argentina, December 2005. Lecture given in Spanish.
 29. Manejo De La Axila Y El Ganglio Centinela. (Management of the Axilla and the Sentinel Lymph Node in Breast Cancer). Cendán JC. Oral presentation at Ginecologia de la Provincia de Buenos Aires Conjunta can XIX Jornadas, Mar del Plata, Argentina, December 2005. Lecture given in Spanish.
 30. Immunity After Laparoscopic Versus Open Gastric Bypass Surgery. McAuliffe P, Efron PA, Scumpia P, Uchida T, Mutschlecner SC, Rout WR, Moldawer LL, Cendán JC. Oral presentation at the International Federation for the Surgery of Obesity, Maastricht, Netherlands, September 2005.
 31. Utilization of Intensive Care Resources in Bariatric Surgery. Cendán JC, Abu-aouf D, Gabrielli A, Caruso LJ, Rout WR, Hocking MP, Layon AJ. Poster presented at the International Federation for the Surgery of Obesity, Maastricht, Netherlands, September 2005.
 32. Simulation Technology for Conducting and Improving Medical Education: Addressing Educational Needs with Simulation of Medical Conditions. RE Med 2010, 4th Interdisciplinary International Congress, Faculdade de Ciencias Medicas de Minas Gerais, Belo Horizonte, Brazil, 27-29 October, 2010.
 33. Adolescent Bariatric Surgery. Cendán JC. Invited lecture at 26th Annual Care of the Sick Child Conference. Orlando, FL, 14 October 2010.

34. Poster Grand Rounds on Colorectal Specialties Section. Cendán JC. Visiting Professor, Southeastern Surgical Congress, Birmingham, AL February 2008. Effectiveness and Medical Student Response to Small Group Learning vs. Traditional Lectures During a Surgery Clerkship. Silver, M, Ben-David K, Ivey A, Cendán JC. UF-COM Medical School Research Day, April 19, 2010.
35. Role of Simulators in Learner Assessment. Cendán JC. Oral presentation at The Master Educators in Medical Education Lecture Series, Gainesville, FL. January 24, 2008.
36. The University of Florida Surgical Simulation Development Experience. Cendán JC, Kurenov S, Lok B, Peters J. Oral presentation at the Department of Surgery Grand Rounds, Gainesville Florida, January 2007.
37. Reducing Disparities in Surgical Care. Cendán JC, Birkmeyer J. Co-Moderators: Five national figures presented. American College of Surgeons Annual Congress. Chicago, Illinois, October 12, 2006.
38. Presentation to the Division Chiefs on the Activity Tracking Software. Cendán JC. Oral Presentation the University of Florida Department of Vascular Surgery, Gainesville, Florida, June 23, 2006.
39. Surgical Simulation: Presentation to the Carnegie Institute. Cendán JC, Kurenov S. Oral presentation at The University of Florida Department of Surgery Grand Rounds, Gainesville, Florida, November 2005. Surgical Treatment of Morbid Obesity. Cendán JC, Lecture for the University of Florida Junior Honors Lecture (3 hour Lecture) MEL4001, McKnight Brain center, Gainesville, Florida, April 2006.
40. Developing Trends in Surgical Education Incorporating Virtual Reality Surgical Simulators. Cendán JC, Kurenov S. Oral presentation at The University of Florida Department of Surgery Grand Rounds, Gainesville, Florida, November 2005.
41. What is the American College of Surgeons Doing Regarding Diversity in Surgical Residencies? Cendán JC. Presented a 30-minute talk as part of an expert panel Session GS-22 at the American College of Surgeons Annual Congress, San Francisco, California, October 17, 2005.
42. Gastric Electrophysiology and the Role of Pacemakers and Simulators in the Treatment of Obesity and Gastroparesis. Cendán JC, Invited

- oral presentation at The University of Florida Department of Surgery Grand Rounds, Jacksonville, Florida, February 2005.
43. Past, Present and Future Roles of the Minority Surgeon. Cendán JC, American College of Surgeons, Presentation and lecture moderated with a 2 hour expert panel, New Orleans, Louisiana, October 2004.
 44. Multimodal Interaction with Life-Sized Virtual Characters for Training and Education. Cendán JC, Lok B, Harrison C, Johnsen K, Dickerson R, Shin M, Stevens A, Duerson M, Lind DS. Florida Technology Transfer Conference, St. Petersburg, Florida, May 17, 2004.
 45. The use of Virtual Patients and Instructors to Teach Clinical Presentations. Cendán JC, Lok B, Harrison C, Johnsen K, Dickerson R, Shin M, Stevens A, Duerson M, Lind DS. 4th Annual Medical Education Week, College of Medicine, University of Florida, Gainesville, Florida, May 10-14, 2004.
 46. Obesity and Obesity Surgery. Cendán JC. University of Florida Obstetrics and Gynecology Grand Rounds, Gainesville, Florida, February 2004.
 47. Basic Science of Morbid Obesity. Cendán JC. University of Florida Surgical Grand Rounds, Gainesville, Florida, November 2003.
 48. Sentinel Lymph Node Biopsy for DCIS: An Evolving Approach at the University of Florida. Camp ER, Feezor R, Kasraeian A, Cendán JC, Copeland EM III, Schell S, Wilkinson E, Lind DS. Poster presentation at Breast Cancer Update, Amelia Island, Florida, March 2, 2003.
 49. The Second Decade of Laparoscopy: Old Myths and New Challenges. Cendán JC. University of Florida Surgical Grand Rounds, Gainesville, Florida, January 15, 2003.
 50. Case Presentation to Expert Panel at the American College of Surgeons, Breast Ductal Carcinoma *in situ*. Cendán JC. Postgraduate course in breast cancer, American College of Surgeons, San Francisco, California, October 1, 2002.
 51. The Surgeon's Job and How Can the Mammographer Help? Cendán JC. University of Florida 7th Annual Mammography Course, Orlando, Florida, March 23, 2002.

52. Lessons Learned from Virtual Patients and Simulation in Medical Education. J Cendán. Transformative Innovations: Biosimulation as a Disruptive Technology. Sponsored by UF College of Pharmacy. March 13, 2017. Lake Nona, Orlando, FL.
53. A Legacy of Education. J Cendán. Woodward Surgical Society 60th Anniversary Meeting. February 17, 2017. Gainesville, FL.
54. Retrieval Based Learning Strategies. J Cendán. Woodward Society Spring Meeting, Gainesville, Florida, February 26, 2016.
55. Healthy Communities. Plenary Session round-table discussion part of Better Health Through Economic Opportunity Forum, Sponsored by U.S. and Florida Chamber of Commerce and the Robert Wood Johnson Foundation. September 29, 2015. Orlando, FL.
56. Standards-Setting In Surgical Simulation. Cendán, JC. Florida Chapter of the American College of Surgeons, Annual Conference, May 18th, 2012, Sarasota, FL.
57. Simulation Will Be Part Of The Medical Certification And Credentialing Process In The Near Future. Cendán JC. Woodward Society Spring Meeting, March 16-17, 2012, University of Florida, Gainesville, FL.
58. Using On-Line Graphic Illustrations To Augment Your Curriculum. Cendán JC. Oral presentation to Southern Medical Association, November 4, 2010, Gaylord Palms, Orlando, FL.
59. Progressing from Standardized Patients to Virtual Patients in your Medical Education Curriculum. Cendán JC. Oral presentation to Southern Medical Association, November 5, 2010, Gaylord Palms, Orlando, FL.
60. Introduction to Simulation Pedagogic Evidence. Cendán JC. Oral presentation to Southern Medical Association, November 4, 2010, Gaylord Palms, Orlando, FL.
61. Surgical Simulation: Considerations for Training and More. Cendán J, Sept 17, 2011, Florida Society of General Surgeons, Orlando, FL.
62. Laparoscopic Resection of Adrenocortical Tumors and Adrenal Gland: Indications and Contraindications and Review of Technique and Results. RE Med 2010, 4th Interdisciplinary Author-directed Surgical

- Simulation. Cendán JC. Oral presentation at Society for Simulation in Healthcare Congress, January 25th, 2010, New Orleans, LA.
63. Distributed Learning Opportunities for Medical Education Using Portable Devices. Cendán JC, Gillum S. Opening Session Address, International Lecture, RE Med 2010, 4th Interdisciplinary International Congress, Faculdade de Ciencias Medicas de Minas Gerais, Belo Horizonte, Brazil, 27-29 October, 2010.
64. Modern Management of the Adrenal Lesion. Cendán JC. Invited lecturer at Surgical Grand Rounds, Department of Surgery, Orlando Health. Orlando, FL, 22 October 2010.
65. Adolescent Bariatric Surgery. Cendán JC. Invited lecture at 26th Annual Care of the Sick Child Conference. Orlando, FL, 14 October 2010.
66. Poster Grand Rounds on Colorectal Specialties Section. Cendán JC. Visiting Professor, Southeastern Surgical Congress, Birmingham, AL February 2008. Effectiveness and Medical Student Response to Small Group Learning vs. Traditional Lectures During a Surgery Clerkship. Silver, M, Ben-David K, Ivey A, Cendán JC. UF-COM Medical School Research Day, April 19, 2010.
67. Role of Simulators in Learner Assessment. Cendán JC. Oral presentation at The Master Educators in Medical Education Lecture Series, Gainesville, FL. January 24, 2008.
68. The University of Florida Surgical Simulation Development Experience. Cendán JC, Kurenov S, Lok B, Peters J. Oral presentation at the Department of Surgery Grand Rounds, Gainesville Florida, January 2007.
69. Reducing Disparities in Surgical Care. Cendán JC, Birkmeyer J. Co-Moderators: Five national figures presented. American College of Surgeons Annual Congress. Chicago, Illinois, October 12, 2006.
70. Presentation to the Division Chiefs on the Activity Tracking Software. Cendán JC. Oral Presentation the University of Florida Department of Vascular Surgery, Gainesville, Florida, June 23, 2006.
71. Surgical Simulation: Presentation to the Carnegie Institute. Cendán JC, Kurenov S. Oral presentation at The University of Florida Department of Surgery Grand Rounds, Gainesville, Florida, November

- 2005.Surgical Treatment of Morbid Obesity. Cendán JC, Lecture for the University of Florida Junior Honors Lecture (3 hour Lecture) MEL4001, McKnight Brain center, Gainesville, Florida, April 2006.
72. Developing Trends in Surgical Education Incorporating Virtual Reality Surgical Simulators. Cendán JC, Kurenov S. Oral presentation at The University of Florida Department of Surgery Grand Rounds, Gainesville, Florida, November 2005.
73. What is the American College of Surgeons Doing Regarding Diversity in Surgical Residencies? Cendán JC. Presented a 30-minute talk as part of an expert panel Session GS-22 at the American College of Surgeons Annual Congress, San Francisco, California, October 17, 2005.
74. Gastric Electrophysiology and the Role of Pacemakers and Simulators in the Treatment of Obesity and Gastroparesis. Cendán JC, Invited oral presentation at The University of Florida Department of Surgery Grand Rounds, Jacksonville, Florida, February 2005.
75. Past, Present and Future Roles of the Minority Surgeon. Cendán JC, American College of Surgeons, Presentation and lecture moderated with a 2 hour expert panel, New Orleans, Louisiana, October 2004.
76. Multimodal Interaction with Life-Sized Virtual Characters for Training and Education. Cendán JC, Lok B, Harrison C, Johnsen K, Dickerson R, Shin M, Stevens A, Duerson M, Lind DS. Florida Technology Transfer Conference, St. Petersburg, Florida, May 17, 2004.
77. The use of Virtual Patients and Instructors to Teach Clinical Presentations. Cendán JC, Lok B, Harrison C, Johnsen K, Dickerson R, Shin M, Stevens A, Duerson M, Lind DS. 4th Annual Medical Education Week, College of Medicine, University of Florida, Gainesville, Florida, May 10-14, 2004.
78. Obesity and Obesity Surgery. Cendán JC. University of Florida Obstetrics and Gynecology Grand Rounds, Gainesville, Florida, February 2004.
79. Basic Science of Morbid Obesity. Cendán JC. University of Florida Surgical Grand Rounds, Gainesville, Florida, November 2003.
80. Sentinel Lymph Node Biopsy for DCIS: An Evolving Approach at the University of Florida. Camp ER, Feezor R, Kasraeian A, Cendán JC,

- Copeland EM III, Schell S, Wilkinson E, Lind DS. Poster presentation at Breast Cancer Update, Amelia Island, Florida, March 2, 2003.
81. The Second Decade of Laparoscopy: Old Myths and New Challenges. Cendán JC. University of Florida Surgical Grand Rounds, Gainesville, Florida, January 15, 2003.
 82. Case Presentation to Expert Panel at the American College of Surgeons, Breast Ductal Carcinoma in situ. Cendán JC. Postgraduate course in breast cancer, American College of Surgeons, San Francisco, California, October 1, 2002.
 83. The Surgeon's Job and How Can the Mammographer Help? Cendán JC. University of Florida 7th Annual Mammography Course, Orlando, Florida, March 23, 2002.

CURRICULUM VITAE

Personal data

Rajiv Chowdhury, MBBS, MPhil, PhD, FESC

Email: rajiv.chowdhury@gmail.com

Nationality: British

EDUCATIONAcademic degrees

- | | |
|------|--|
| 2013 | Doctor of Philosophy (PhD), Public Health
University of Cambridge, UK (<i>with best doctoral scholar award</i>) |
| 2007 | Master of Philosophy (MPhil), Epidemiology
University of Cambridge, UK (<i>with distinction</i>) |
| 2001 | Bachelor of Medicine, Bachelor of Surgery (MB BS)
University of Dhaka, Bangladesh |

Advanced academic courses

- | | |
|------|---|
| 2021 | Global Health Delivery, Harvard University, US |
| 2021 | Global Health Quality and Safety, Harvard University, US |
| 2021 | Public Policy Economics, University of Oxford, UK |
| 2020 | Systems Thinking in Public Health, Johns Hopkins University, US |
| 2018 | Health Equity Research Methods, Johns Hopkins University, US |
| 2013 | Clinical Trials, London School of Hygiene & Tropical Medicine, UK |
| 2009 | Global Nutritional Epidemiology, Imperial College London, UK |
| 2008 | Genetic Epidemiology, Erasmus University, Netherlands |

Professional courses

- | | |
|--------|---|
| 2021 | Leadership Principles, Harvard Kennedy School of Government, Harvard University, US |
| 2021 | Leadership and Program Management, World Health Organization (WHO), Switzerland |
| 2018-9 | Leadership; Equality and Diversity Essentials, University of Cambridge, UK |

PROFESSIONAL ACTIVITIESAcademic appointments

- | | |
|---------|--|
| 2021- | Professor of Global Public Health,
College of Medicine and Health, University of Exeter, UK (tenured/ permanent contract) |
| 2018-21 | Reader (Associate Professor) in Global Public Health,
School of Clinical Medicine, University of Cambridge, UK |
| 2013-17 | Senior Research Associate (eqv. to Assistant Professor) in Epidemiology,
School of Clinical Medicine, University of Cambridge, UK |

2008-13	Epidemiologist, Global Non-communicable Diseases (NCDs), Cardiovascular Epidemiology Unit, University of Cambridge, UK
2016-	Professor of Epidemiology (adjunct), National Heart Foundation and Research Institute, Bangladesh
2017-	Associate Professor of Global Health (adjunct), North South University, Dhaka Bangladesh.
2011-	Executive Director, Centre for Non-Communicable disease Research (CNCR), Bangladesh
2002-6	Research Investigator, Public Health Sciences Division, icddr, International Centre for Health and Population Research, Bangladesh
2001-2	Medical Officer, Department of Medicine, Bangladesh Medical College Hospital, Dhaka, Bangladesh

Scientific appointments

2017-21	Co-Principal Investigator (PI), CAPABLE Global Health Initiative, University of Cambridge, UK
2016-21	PI, Global Health Research Group, Cardiovascular Epidemiology Unit, University of Cambridge, UK
2016-21	Lead PI, Bangladesh Longitudinal Investigation of Emerging Vascular Events study (BELIEVE; 75,000-person blood-based prospective cohort study in Bangladesh)
2016-21	Lead PI, Malaysian Risk of Acute Vascular Events study (MAVERIK; 5,000-person blood-based case-control study, Malaysia)
2016-21	Lead PI, Sri Lanka Health Intervention and Non-communicable Events Study (SHINES; 7,000-person blood-based population survey in Sri Lanka)
2011-21	Lead PI, Bangladesh Risk of Acute Vascular Events study (BRAVE; 16,000-person blood-based case-control study in Bangladesh)
2020-21	Lead PI, Covid-19 Dynamic Interventions Modelling Collaboration, University of Cambridge, UK
2017-19	Lead PI, Global Environmental Toxic Metals Research Initiative, University of Cambridge, UK
2015-21	Co-PI, Research Studies on Fatty Acids Biomarkers, Pan-European EPIC-CVD Cohorts Collaboration, University of Cambridge, UK
2015-18	Co-PI, Natriuretic Peptides Studies Collaboration (NPSC), University of Cambridge, UK
2015-19	Co-investigator, the WHO Global Cardiovascular Risk Prediction Project, University of Cambridge, UK
2013-18	Co-investigator, Scientific Committee, Vitamin D Prospective Cohort Studies Collaboration (VitDSC)

Administrative roles

2017-21	<p>Scientific/ Executive Director, UKRI/CAPABLE Global Health Programme, Department of Public Health and Primary Care, University of Cambridge, UK</p> <p><i>(key roles: provided leadership in the design and set-up of a multi-site, multi-disciplinary, multi-million pound global health research programme; secured financial resources to meet program objectives; represented the programme in external committees; recruited and trained scientific staff; guided the annual reporting of the programme progress)</i></p>
---------	---

- 2018-21 Co-Chair, Executive Committee, CAPABLE Global Health Consortium, University of Cambridge, UK
(key roles: provided leadership in developing and implementing strategy, operational plans, program policies, operational procedures and budgets; monitored operating and financial performance; assessed risk and devised mitigation plans; prioritised and allocated resources)
- 2018-21 Co-Chair, Steering Committee for Capacity Building, CAPABLE Global Health Consortium, University of Cambridge, UK
(key roles: provided leadership in design and term-to-term running of the advanced short courses and the long-term fellowship programmes in Global Health)
- 2020-21 Chair, Working Group on Covid-19 Research Initiatives in South Asia, Department of Public Health and Primary Care, University of Cambridge, UK
(key role: provided leadership in design and implementation of multi-site Covid-19 surveys in international project sites)
- 2018-21 Chair, Management and Operations Group (MOG), Global Health Studies, Department of Public Health and Primary Care, University of Cambridge, UK
(key roles: provided leadership in the departmental operational aspects of the international global health studies, including staff recruitment, training, international fieldwork, data and samples management, and stakeholders engagement)
- 2019-21 Chair, Departmental Data Access Committee, Global Health Studies, Department of Public Health and Primary Care, University of Cambridge, UK
(key roles: provided leadership in review and approval processes of external and internal data analyses proposals using departmental cohort data resources)
- 2019-21 Module Lead, MPhil Programmes in Population Health Sciences, School of Clinical Medicine, University of Cambridge, UK
(key role: provided co-leadership in the overall design of a Global Health theme within the new Cambridge MPhil Programme in Population Health Sciences)
- 2017-21 Module lead and member, Graduate Examinations Committee, Department of Public Health and Primary Care, University of Cambridge, UK
(key role: led the preparation, administration, and evaluation of the global health part of the MPhil examination of the Department)
- 2016-21 Member, MPhil and PhD Admissions Committee, Department of Public Health and Primary Care, University of Cambridge, UK
(key roles: reviewed and developed admissions policy and practice; facilitated in setting up of benchmark admissions criteria and requirements)
- 2017-21 Member, Scientific Committee, Cambridge Cardiovascular Interdisciplinary Research Centre (IRC)
(key role: contributed in the scientific direction, facilitated scientific resource and capacity building in global cardiometabolic health)
- 2017-21 Member, Scientific Working Group, Cambridge Institute of Public Health (CIPH)
(key role: facilitated to formulate and implement university-wide cross-disciplinary research activities in global public health)
- 2018-21 Member, Senior Scientist Working Group, Cardiovascular Epidemiology Unit, Department of Public Health and Primary Care, University of Cambridge, UK
(key role: contributed in the Unit's overall goals setting for high-quality joined-up cardiovascular epidemiology research projects)

SELECTED ADVISORY POSITIONS

Advisory roles

2021-	Senior Advisor, the WHO-ISPM Program for Global Urban Governance on Health
2014-	Member, Country Experts Panel, Global Burden of Disease (GBD) Study
2017-	Member, UK Medical Research Council (UK-MRC) Population and Systems Medicine Board
2014-17	Member, World Health Organization Global NCD Prevention Committee
2015-21	Member and Investigator, Cambridge-Wellcome Centre for Global Health Research
2015-18	Member and Investigator, Erasmus Programme on Role of Epigenetic Modifications on NCD Risks
2012-14	Member and Investigator, Erasmus Programme on Women's Health and Cardiometabolic Disease

Honorary appointments

2016-10	Adjunct Scientist, Centre for Cardiovascular and Diabetes Research, Institute for Medical Research, Kuala Lumpur, Malaysia
2016-19	Adjunct Scientist, Department of Community Medicine, University of Sri Jayewardenepura, Colombo, Sri Lanka
2012-	Adjunct Scientist, icddr,b: International Centre for Health Research, Dhaka, Bangladesh

International advisory/ administrative roles

2019-	Member, external advisory panel, Northeast China Non-infectious Chronic Diseases Cohort study, School of Public Health, China Medical University, Shenyang, China
2019-20	Member, external advisory group, Middle-East Cohort Consortium, College of Global Public Health, New York University Abu Dhabi, UAE
2018-20	External faculty, Fundación Universitaria de Ciencias de la Salud (University Foundation of Health Sciences), Medellin, Colombia
2018	External faculty, Pontificia Universidad Javeriana (Pontifical Xavierian University), Bogota, Colombia
2018	Member, external advisory panel, Department of Community Medicine, Mahidol University, Bangkok, Thailand
2017-20	Member, external advisory panel, Caribbean Institute of Health Research, University of West Indies, Kingston, Jamaica
2016	Member, external advisory group, ELSA-Brazil prospective cohort study, Sao Paulo University, Brazil
2016-20	Member, external advisory panel, Department of Medicine, Pontificia Universidade Católica do Paraná (Catholic University of Paraná), Curitiba, Brazil

PEER REVIEW ACTIVITIES AND EDITORSHIPS

- 2013- Reviewer of research grant proposals for national and international funding organizations, including:
- The UK Medical Research Council
 - British Heart Foundation
 - The US National Cancer Institute
 - The Wellcome Trust
 - The Research Grants Council of Hong Kong
 - The Netherlands Organization for Health Research and Development
- 2013- Member in the Editorial Boards of peer-reviewed biomedical journals, including:
- European Journal of Epidemiology
 - Journal of Epidemiology and Community Health
 - Global Heart
 - Nutrients
- 2010- Reviewer of academic manuscripts submitted in high-impact biomedical journals, including:
- British Medical Journal
 - The Lancet
 - Journal of American Medical Association
 - New England Journal of Medicine
 - PLoS Medicine
 - Annals of Internal Medicine
 - European Heart Journal,
 - European Journal of Epidemiology
 - Stroke

POSTGRADUATE TEACHING

- 2018 Co-Director, UKRI/CAPABLE Global Health Capacity Development and Fellowship Programme, University of Cambridge, UK
- 2011- Lead, Global Public Health module, MPhil in Public Health course, Department of Public Health and Primary Care, University of Cambridge, UK
- 2015- Lead, Epidemiology module, MPhil in Clinical Sciences course, University of Cambridge, UK
- 2015- Lead, Global Public Health course, Erasmus Medical Centre, Netherlands (part of the largest summer teaching programme in Europe)
- 2015-18 Lead, Non-communicable Disease module, MSc in International Health course, *Charité – Universitätsmedizin* Berlin (German Institute of Tropical Medicine), Berlin, Germany.
- 2019- Lead, Global Health course, Pembroke-King's Summer Programme, University of Cambridge, UK.
- 2011- Lecturer, MPhil in Epidemiology and Public Health courses, University of Cambridge, UK
- 2011- Course Supervisor in postdoctoral, doctoral, masters and other postgraduate studies (supervised >20 students/fellows in the UK and internationally)

FELLOWSHIPS, HONOURS AND AWARDS

2021-	Fellow of the American College of Epidemiology
2016-	Fellow of the European Society of Cardiology
2014-	Fellow of the Royal Society for Public Health
2013	Inaugural Bill Gates Sr. Award, Cambridge University, UK (<i>for best graduating PhD student</i>)
2009-13	Gates Cambridge Scholarship (full PhD), Queens' College, Cambridge University, UK
2009-13	Cambridge International Scholarship (full PhD), Cambridge University, UK (<i>not used</i>)
2008-9	Erasmus Fellow, National Institute for Health Sciences, Netherlands
2007-8	Graduate Research Fellow, Clare Hall College, Cambridge University, UK
2006-7	Commonwealth Scholarship (full MPhil), Cambridge University, UK
2006-7	Dean's Scholarship (part MPH), Harvard School of Public Health, USA (<i>not used</i>)
2006	Fellow, Stop Transmission of Polio, The Centers for Disease Control & Prevention (CDC), USA

SELECTED RESEARCH GRANTS

Below is a summary of major competitive research grants (total >\$20M)*

Grant title	Role	Funder	Amount	Dates
CAPABLE Programme for Global NCD Health (environmental, lifestyle and genetic factors)	Co-PI	UKRI	£8.4M (\$11.3M)	2018-21
Genomic Studies in coronary heart diseases (work package leader)	Co-I	BHF	£2.5M (\$3.4M)	2018-23
Risk factors in coronary heart disease (work package leader)	Co-I	MRC/BHF	£4M (\$5.8M)	2013-18
Risk factors of NCDs in Malaysia	PI	MRC/ASM	£400K (\$537K)	2016-19
Risk factors of NCDs in Sri Lanka	PI	Gnanam Foundation	£450K (\$604K)	2016-20
Tobacco cessation interventions in Bangladesh	Co-PI	GCRF	£80K (\$107K)	2019-20
Effects of drinking water intervention on arsenic	Co-PI	GCRF	£80K (\$107K)	2019-20
Gender and diabetes in Bangladesh	Co-PI	GCRF	£80K (\$107K)	2019-20
Air pollution and risk of NCDs (work package leader)	Co-PI	EPSRC	£55k (\$74K)	2016-18
Arsenic contamination and NCDs risk	PI	BHF	£50k (\$67K)	2015-18
Risk factors of CVD in South Asians	PI	Gates	£75k (\$100K)	2013-18

GCRF, Global Challenges Research Fund; BHF, British Heart Foundation; MRC, Medical Research Council; ASM, Academy of Science; EPSRC, Engineering and Physical Sciences Research Council; NIH, National Institute of Health US; NCD, non-communicable disease, CVD, cardiovascular disease; PI, Principal Investigator.

*Not including additional “in-kind” grants with a value ~\$50M, received as a Co-PI from the Regeneron Pharmaceuticals, Inc. (2019-21), to conduct large-scale genomic lab measurements (eg, whole-exome sequencing), based on 50,000 stored whole blood samples in the BELIEVE cohort study.

SCIENTIFIC PUBLICATIONS

Total peer-reviewed scientific publications: **113** (as of July 9, 2021)

~ These include reports in several high-impact scientific journals (6 publications in the *British Medical Journal*, 17 in the *Lancet*, 9 in *Nature Genetics*, 1 in *Science*, 1 in *Nature*, 5 in *JAMA*, and 1 in *New England Journal of Medicine*).

~ Publication *h*-index: **63**

(Total citations: ~**54,000**; Google Scholar link: <https://scholar.google.com/citations?user=lmhOm1sAAAAJ&hl=en>)

Publications as a lead or senior author:

1. van Daalen KR, Cobain M, Franco OH, **Chowdhury R**. Stigma: the social virus spreading faster than COVID-19. *J Epidemiol Community Health*. 2021;jech-2020-214436.
2. **Chowdhury R**, Luhar S, Khan N, Choudhury SR, Matin I, Franco OH. Long-term strategies to control COVID-19 in low and middle-income countries: an options overview of community-based, non-pharmacological interventions. *Eur J Epidemiol*. 2020;1-6. [This paper received a university press release from Cambridge]
3. Khan M, Roy P, Matin I, Rabbani M, **Chowdhury R**. An Adaptive Governance and Health System Response for the Covid-19 Emergency. *World Dev*. 2020;137:105213.
4. **Chowdhury R**, van Daalen KR, Franco OH. Cardiometabolic health: key in reducing adverse COVID-19 outcomes. *Global Heart*. 2020;15(1):58.
5. **Chowdhury R**, Heng K, Shawon MSR, et al. Dynamic interventions to control COVID-19 pandemic: a multivariate prediction modelling study comparing 16 worldwide countries. *Eur J Epidemiol*. 2020;35(5):389-399. [This paper received a university press release from Cambridge and was picked up by ~50 global media outlets]
6. Franco OH, Gaviria JG, Varas JM, **Chowdhury R**. Eye health in older people at the time of corona. *Maturitas*. 2020;139:98-100.
7. Shawon MSR, Hossain FB, Thomson B, Adhikary G, Chowdhury A, Townsend N* and **Chowdhury R***. Trends in the prevalence of overweight among Bangladeshi children aged 24-59 months (2004-2014) by sex and socioeconomic status. *Int J Obes*. 2020;44(3):664-674.
8. **Chowdhury, R.**, Ramond, A., O'Keeffe, L. M., Shahzad, S., Kunutsor, S. K., Muka, T., . . . Di Angelantonio, E. (2018). Environmental toxic metal contaminants and risk of cardiovascular disease: systematic review and meta-analysis.. *BMJ*, 362, k3310. [This paper received a university press release from Cambridge and from the BMJ, and was picked up by >50 global media outlets]
9. **Chowdhury, R.**, Lawrence, R., van Daalen, K., Hawkes, S., Feldmann, J., & Research Councils UK–CAPABLE Programme on Environmental Hazards and Non-communicable Diseases. (2018). Reducing NCDs globally: the under-recognised role of environmental risk factors.. *Lancet*, 392(10143), 212. [This paper led the WHO High Level Panel for NCDs to re-prioritise environmental risk factors in the global prevention guideline]
10. **Chowdhury, R.**, Rasheeqa Ismail, S., Tsoli, R.(2017) Therapy-related strategies to improved adherence to diabetic medications. *Medicographia*, Vol. 39. No.4 (pp.289-297).
11. **Chowdhury, R.**, Rasheeqa Ismail, S., Tsoli, R. (2017) Therapy-related strategies to improve adherence to cardiovascular medications. *Medicographia*, Vol. 39. No.4 (pp.281-288).

12. Franco, O. H*, **Chowdhury, R***, Troup, J., Voortman, T., Kunutsor, S., Kavousi, M., . . . Muka, T. (2016). Use of Plant-Based Therapies and Menopausal Symptoms: A Systematic Review and Meta-analysis.. *JAMA*, 315(23), 2554-2563. [This paper received a university press release from the Erasmus Medical University and from the JAMA, and was picked up by ~10 global media outlets]
13. Harshfield, E*, **Chowdhury, R***, Harhay, M. N., Bergquist, H., & Harhay, M. O. (2015). Association of hypertension and hyperglycaemia with socioeconomic contexts in resource-poor settings: the Bangladesh Demographic and Health Survey.. *Int J Epidemiol*, 44(5), 1625-1636.
14. **Chowdhury, R.**, & Steur, M. (2015). Invited commentary: dietary polyunsaturated Fatty acids and chronic systemic inflammation--a potentially intriguing link.. *Am J Epidemiol*, 181(11), 857-860.
15. **Chowdhury, R.**, Alam, D. S., Fakir, I. I., Adnan, S. D., Naheed, A., Tasmin, I., . . . Di Angelantonio, E. (2015). The Bangladesh Risk of Acute Vascular Events (BRAVE) Study: objectives and design.. *Eur J Epidemiol*, 30(7), 577-587.
16. Willeit, P., Freitag, D. F., Laukkanen, J. A., Chowdhury, S., Gobin, R., Mayr, M.,... **Chowdhury, R.** (2015). Asymmetric dimethylarginine and cardiovascular risk: systematic review and meta-analysis of 22 prospective studies.. *J Am Heart Assoc*, 4(6), e001833.
17. **Chowdhury, R.**, Steur, M., Patel, P. S., & Franco, O. H. (2015). Individual fatty acids in cardiometabolic disease. In *Handbook of Lipids in Human Function: Fatty Acids* (pp. 207-318).
18. **Chowdhury, R.**, Johnson, L., & Steur, M. (2014). Trans fatty acid isomers in mortality and incident coronary heart disease risk.. *J Am Heart Assoc*, 3(4).
19. **Chowdhury, R.**, Kunutsor, S., & Vitezova, A. (2014). Review: Vitamin D-3 supplementation may reduce mortality in adults; vitamin D-2 does not. *Annals of Int. Med*, 161(2).
20. **Chowdhury, R.**, & Franco, O. H. (2014). Causal link between vitamin D deficiency and ill health still possible Reply. *BMJ*, 348.
21. **Chowdhury, R.**, Kunutsor, S., Vitezova, A., Oliver-Williams, C., Chowdhury, S., Kieffe-de-Jong, J. C.,... Franco, O. H. (2014). Vitamin D and risk of cause specific death: systematic review and meta-analysis of observational cohort and randomised intervention studies. *BMJ*, 348, g1903. [This paper received a university press release from the BMJ, and was picked up by >300 global media outlets]
22. **Chowdhury, R.**, Harshfield, E., Roy, S., Flora, M. S., Akram, K. A. H. M., Bhuiya, A., & Ahsan, H. (2014). Life, health, and safety of industrial workers in Bangladesh: should they be driven by economic rationale or moral imperative?. *J Occup Environ Med*, 56(4), e12-e13.
23. **Chowdhury, R.**, Warnakula, S., Kunutsor, S., Crowe, F., Ward, H. A., Johnson, L., . . . Di Angelantonio, E. (2014). Association of dietary, circulating, and supplement fatty acids with coronary risk: a systematic review and meta-analysis.. *Ann Intern Med*, 160(6), 398-406. [This paper received a university press release from Cambridge and from the Annals of Internal Medicine, and was picked up by >1000 global media outlets]
24. **Chowdhury, R.**, Khan, H., Heydon, E., Shroufi, A., Fahimi, S., Moore, C., . . . Franco, O. H. (2013). Adherence to cardiovascular therapy: a meta-analysis of prevalence and clinical consequences.. *Eur Heart J*, 34(38), 2940-2948.

25. Baena, C. P*, **Chowdhury, R***, Schio, N. A., Sabbag, A. E., Guarita-Souza, L. C., Olandoski, M., . . . Faria-Neto, J. R. (2013). Ischaemic heart disease deaths in Brazil: current trends, regional disparities and future projections.. *Heart*, 99(18), 1359-1364.
26. Shroufi, A*, **Chowdhury, R***, Anchala, R., Stevens, S., Blanco, P., Han, T., . . . Franco, O. H. (2013). Cost effective interventions for the prevention of cardiovascular disease in low and middle income countries: a systematic review.. *BMC Public Health*, 13, 285.
27. Sajjad, A*, **Chowdhury, R***, Felix, J. F., Ikram, M. A., Mendis, S., Tiemeier, H., . . . Franco, O. H. (2013). A systematic evaluation of stroke surveillance studies in low- and middle-income countries. *Neurology*, 80(7), 677-684.
28. Khan, H., Kunutsor, S., Franco, O. H., & **Chowdhury, R.** (2013). Vitamin D, type 2 diabetes and other metabolic outcomes: a systematic review and meta-analysis of prospective studies.. *Proc Nutr Soc*, 72(1), 89-97.
29. **Chowdhury, R.**, Stevens, S., Ward, H., Chowdhury, S., Sajjad, A., & Franco, O. H. (2012). Circulating vitamin D, calcium and risk of cerebrovascular disease: a systematic review and meta-analysis.. *Eur J Epidemiol*, 27(8), 581-591.
30. **Chowdhury, R.**, Stevens, S., Gorman, D., Pan, A., Warnakula, S., Chowdhury, S., . . . Franco, O. H. (2012). Association between fish consumption, long chain omega 3 fatty acids, and risk of cerebrovascular disease: systematic review and meta-analysis.. *BMJ*, 345, e6698.
31. Ahmadi-Abhari, S., & **Chowdhury, R.** (2011). Dietary intake of carbohydrates and risk of type 2 diabetes: a systematic review and meta-analysis. *J Epidemiol Commun H*, 65, A220-A221.
32. Di Angelantonio, E.*, **Chowdhury, R***, Sarwar, N., Aspelund, T., Danesh, J., & Gudnason, V. (2010). Chronic kidney disease and risk of major cardiovascular disease and non-vascular mortality: prospective population based cohort study.. *BMJ*, 341, c4986. [\[This paper received a university press release from Cambridge and was picked up by >10 global media outlets\]](#)
33. Di Angelantonio, E.*, **Chowdhury, R***, Sarwar, N., Ray, K. K., Gobin, R., Saleheen, D., .. Danesh, J. (2009). B-type natriuretic peptides and cardiovascular risk: systematic review and meta-analysis of 40 prospective studies.. *Circulation*, 120(22), 2177-2187.
34. Roy, S. K., Hossain, M. J., Khatun, W., Chakraborty, B., Chowdhury, S., Begum, A., . **Chowdhury, R.** (2008). Zinc supplementation in children with cholera in Bangladesh: randomised controlled trial.. *BMJ*, 336(7638), 266-268.

Publications as a co-author

35. Muka T, Glisic M, Milic J, Verhoog S, Bohlius J, Bramer W, **Chowdhury R**, Franco OH. A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *Eur J Epidemiol*. 2020;35(1):49-60.
36. Zheng JS, Sharp SJ, Imamura F, **Chowdhury R** et al. Association of plasma biomarkers of fruit and vegetable intake with incident type 2 diabetes: EPIC-InterAct case-cohort study in eight European countries. *BMJ*. 2020;370:m2194.
37. Surendran P, Karthikeyan S, Chen L, 14 co-authors..**Chowdhury R** et al. 87 rare variants associated with blood pressure regulation in meta-analysis of~ 1.3 million individuals. *Nat Genet*. 2020.

38. Wang M, Menon R, Mishra S, 30 co-authors..**Chowdhury R** et al. Validation of a Genome-Wide Polygenic Score for Coronary Artery Disease in South Asians. *J Am Coll Cardiol*. 2020;76(6):703-714.
39. Abel HJ, Larson DE, Regier AA, et al. Mapping and characterization of structural variation in 17,795 human genomes. *Nature*. 2020;583(7814):83-89.
40. Gonzalez-Jaramillo V, Portilla-Fernandez E, Glisic M, Voortman T, Bramer W, **Chowdhury R**, et al. The role of DNA methylation and histone modifications in blood pressure: a systematic review. *J Hum Hypertens*. 2019;33(10):703-715.
41. Rojas, L. Z., Glisic, M., Pletsch-Borba, L., Echeverría, L. E., Bramer, W. M., Bano, A.,. **Chowdhury, R**,....., Muka, T. Electrocardiographic abnormalities in Chagas disease in the general population: A systematic review and meta-analysis.. *PLoS Negl Trop Dis*. 2018; 12(6), e0006567.
42. WHO CVD Risk Chart Working Group. World Health Organization cardiovascular disease risk charts: revised models to estimate risk in 21 global regions. *Lancet Glob Health*. 2019 Oct;7(10):e1332-e1345.
43. Griswold, M. G., Fullman, N., Hawley, C., Arian, N., Zimsen, S. R. M., Tymeson, H. D., **Chowdhury, R**,....., Collaborators, G. B. D. . A. (2018). Alcohol use and burden for 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet*, 392(10152), 1015-1035.
44. Mahajan, A., Wessel, J., Willems, S. M., Zhao, W., Robertson, N. R., Chu, A. Y., **Chowdhury, R**,.... McCarthy, M. I. (2018). Refining the accuracy of validated target identification through coding variant fine-mapping in type 2 diabetes.. *Nat Genet*, 50(4), 559-571.
45. Colpani, V., Baena, C. P., Jaspers, L., van Dijk, G. M., Farajzadegan, Z., Dhana, K.,..... **Chowdhury, R**,....., Franco, O. H. (2018). Lifestyle factors, cardiovascular disease and all-cause mortality in middle-aged and elderly women: a systematic review and meta-analysis.. *Eur J Epidemiol*, 33(9), 831-845.
46. Wang, Y., Meng, R. -W., Kunutsor, S. K., **Chowdhury, R**, Yuan, J. -M., Koh, W. -P., & Pan, A. (2018). Plasma adiponectin levels and type 2 diabetes risk: a nested case-control study in a Chinese population and an updated meta-analysis.. *Sci Rep*, 8(1), 406.
47. Glisic, M., Shahzad, S., Tsoli, S., Chadni, M., Asllanaj, E., Rojas, L. Z.,**Chowdhury, R**,.....,Franco, O. H. (2018). Association between progestin-only contraceptive use and cardiometabolic outcomes: A systematic review and meta-analysis.. *Eur J Prev Cardiol*, 25(10), 1042-1052.
48. Justice, A., Easton, D., & Thompson, D. (n.d.). Protein-Coding Variants Implicate Novel Genes Related to Lipid Homeostasis Contributing to Body Fat Distribution. *Nature Genetics*.
49. Warren, H. R., Evangelou, E., Cabrera, C. P., Gao, H., Ren, M., Mifsud, B.,.... **Chowdhury, R**,.....,UK Biobank CardioMetabolic Consortium BP working group. (2017). Corrigendum: Genome-wide association analysis identifies novel blood pressure loci and offers biological insights into cardiovascular risk.. *Nat Genet*, 49(10), 1558.
50. Liu, D. J., Peloso, G. M., Yu, H., Butterworth, A. S., Wang, X., Mahajan, A.,..... **Chowdhury, R**,..... Kathiresan, S. (2017). Exome-wide association study of plasma lipids in >300,000 individuals.. *Nat Genet*, 49(12), 1758-1766.
51. Abajobir, A. A., Abate, K. H., Abbafati, C., Abbas, K. M., Abd-Allah, F., Abdulkader, R. S.,..... **Chowdhury, R**,....., Bhatt, S. (2017). Global, regional, and national disability-adjusted life-years (DALYs) for 333 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 390(10100), 1260-1344.

52. Braun, K. V. E., Portilla, E., **Chowdhury, R.**, Nano, J., Troup, J., Voortman, T., . . . Muka, T. (2017). The Role of Epigenetic Modifications in Cardiometabolic Diseases.. In *Epigenetics of Aging and Longevity Translational Epigenetics*. Academic Press.
53. Turcot, V., Lu, Y., Highland, H. M., Schurmann, C., Justice, A. E., Fine, R. S., . . . Understanding Society Scientific Group. (2018). Protein-altering variants associated with body mass index implicate pathways that control energy intake and expenditure in obesity.. *Nat Genet*, 50(1), 26-41.
54. Feigin, V. L., Abajobir, A. A., Abate, K. H., Abd-Allah, F., Abdulle, A. M., Abera, S. F.,..... **Chowdhury, R.**,..... Aichour, I. (2017). Global, regional, and national burden of neurological disorders during 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet Neurology*, 16(11), 877-897. Zhao, W., Rasheed, A., Tikkanen, E., Lee, J. -J., Butterworth, A. S., Howson, J. M. M., **Chowdhury, R.**,..... Saleheen, D. (2017). Identification of new susceptibility loci for type 2 diabetes and shared etiological pathways with coronary heart disease.. *Nat Genet*, 49(10), 1450-1457.
55. Muka, T., **Chowdhury, R.**, & Franco, O. H. (2017). Effect of Iron Levels on Women After Premature or Early-Onset Menopause-Reply.. *JAMA Cardiol*, 2(4), 458-459.
56. Warren, H. R., Evangelou, E., Cabrera, C. P., Gao, H., Ren, M., Mifsud, B.,..... **Chowdhury, R.**,.....UK Biobank CardioMetabolic Consortium BP working group. (2017). Genome-wide association analysis identifies novel blood pressure loci and offers biological insights into cardiovascular risk.. *Nat Genet*, 49(3), 403-415.
57. Gregson, J. M., Freitag, D. F., Surendran, P., Stitzel, N. O., **Chowdhury, R.**, Burgess, S., . . . EPIC-CVD consortium and the CHD Exome+ consortium. (2017). Genetic invalidation of Lp-PLA2 as a therapeutic target: Large-scale study of five functional Lp-PLA2-lowering alleles.. *Eur J Prev Cardiol*, 24(5), 492-504.
58. Webb, T. R., Erdmann, J., Stirrups, K. E., Stitzel, N. O., Masca, N. G. D., Jansen, H., **Chowdhury, R.**,..... Myocardial Infarction Genetics and CARDIoGRAM Exome Consortia Investigators. (2017). Systematic Evaluation of Pleiotropy Identifies 6 Further Loci Associated With Coronary Artery Disease.. *J Am Coll Cardiol*, 69(7), 823-836.
59. Marouli, E., Graff, M., Medina-Gomez, C., Lo, K. S., Wood, A. R., Kjaer, T. R.,..... **Chowdhury, R.**,.....Lettre, G. (2017). Rare and low-frequency coding variants alter human adult height.. *Nature*, 542(7640), 186-190.
60. Braun, K. V. E., Voortman, T., Dhana, K., Troup, J., Bramer, W. M., Troup, J.,..... **Chowdhury, R.**,..... Franco, O. H. (2016). The role of DNA methylation in dyslipidaemia: A systematic review.. *Prog Lipid Res*, 64, 178-191.
61. GBD 2015 SDG Collaborators. (2016). Measuring the health-related Sustainable Development Goals in 188 countries: a baseline analysis from the Global Burden of Disease Study 2015.. *Lancet*, 388(10053), 1813-1850.
62. GBD 2015 Child Mortality Collaborators. (2016). Global, regional, national, and selected subnational levels of stillbirths, neonatal, infant, and under-5 mortality, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015.. *Lancet*, 388(10053), 1725-1774.
63. GBD 2015 Mortality and Causes of Death Collaborators. (2016). Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015.. *Lancet*, 388(10053), 1459-1544.
64. GBD 2015 Maternal Mortality Collaborators. (2016). Global, regional, and national levels of maternal mortality, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015.. *Lancet*, 388(10053), 1775-1812.

65. GBD 2015 Disease and Injury Incidence and Prevalence Collaborators. (2016). Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015.. *Lancet*, 388(10053), 1545-1602.
66. Muka, T., Oliver-Williams, C., Kunutsor, S., Laven, J. S. E., Fauser, B. C. J. M., **Chowdhury, R.**, . . . Franco, O. H. (2016). Association of Age at Onset of Menopause and Time Since Onset of Menopause With Cardiovascular Outcomes, Intermediate Vascular Traits, and All-Cause Mortality: A Systematic Review and Meta-analysis.. *JAMA Cardiol*, 1(7), 767-776.
67. Barber, R. M., Fullman, N., Sorensen, R. J. D., Bollyky, T., McKee, M., Nolte, E., . . . Quality, G. B. D. . H. A. (2017). Healthcare Access and Quality Index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990-2015: a novel analysis from the Global Burden of Disease Study 2015. *LANCET*, 390(10091), 231-266.
68. Howson, J. M. M., Zhao, W., Barnes, D. R., Ho, W. -K., Young, R., Paul, D. S., . . . Saleheen, D. (2017). Fifteen new risk loci for coronary artery disease highlight arterial-wall-specific mechanisms.. *Nat Genet*, 49(7), 1113-1119.
69. Surendran, P., Drenos, F., Young, R., Warren, H., Cook, J. P., Manning, A. K., . . . Munroe, P. B. (2016). Trans-ancestry meta-analyses identify rare and common variants associated with blood pressure and hypertension.. *Nat Genet*, 48(10), 1151-1161.
70. Natriuretic Peptides Studies Collaboration/, Willeit, P., Kaptoge, S., Welsh, P., Butterworth, A., **Chowdhury, R.**, . . . Di Angelantonio, E. (2016). Natriuretic peptides and integrated risk assessment for cardiovascular disease: an individual-participant-data meta-analysis.. *Lancet Diabetes Endocrinol*, 4(10), 840-849.
71. Muka, T., Oliver-Williams, C., Colpani, V., Kunutsor, S., Chowdhury, S., **Chowdhury, R.**, . . . Franco, O. H. (2016). Association of Vasomotor and Other Menopausal Symptoms with Risk of Cardiovascular Disease: A Systematic Review and Meta-Analysis.. *PLoS One*, 11(6), e0157417.
72. Melo van Lent, D., Leermakers, E. T. M., Darweesh, S. K. L., Moreira, E. M., Tielemans, M. J., Muka, T., . . . Franco, O. H. (2016). The effects of lutein on respiratory health across the life course: A systematic review.. *Clin Nutr ESPEN*, 13, e1-e7.
73. Myocardial Infarction Genetics and CARDIoGRAM Exome Consortia Investigators., Stitzel, N. O., Stirrups, K. E., Masca, N. G. D., Erdmann, J., Ferrario, P. G., . . . Schunkert, H. (2016). Coding Variation in ANGPTL4, LPL, and SVEP1 and the Risk of Coronary Disease.. *N Engl J Med*, 374(12), 1134-1144.
74. Muka, T., Koromani, F., Portilla, E., O'Connor, A., Bramer, W. M., Troup, J., . . . Franco, O. H. (2016). The role of epigenetic modifications in cardiovascular disease: A systematic review.. *Int J Cardiol*, 212, 174-183.
75. Zanon, P., Khetarpal, S. A., Larach, D. B., Hancock-Cerutti, W. F., Millar, J. S., Cuchel, M., . . . Global Lipids Genetics Consortium. (2016). Rare variant in scavenger receptor BI raises HDL cholesterol and increases risk of coronary heart disease.. *Science*, 351(6278), 1166-1171.
76. Global Burden of Disease Pediatrics Collaboration., Kyu, H. H., Pinho, C., Wagner, J. A., Brown, J. C., Bertozzi-Villa, A., . . . Vos, T. (2016). Global and National Burden of Diseases and Injuries Among Children and Adolescents Between 1990 and 2013: Findings From the Global Burden of Disease 2013 Study.. *JAMA Pediatr*, 170(3), 267-287.

77. Leermakers, E. T., Darweesh, S. K., Baena, C. P., Moreira, E. M., Melo van Lent, D., Tielemans, M. J., . . . Franco, O. H. (2016). The effects of lutein on cardiometabolic health across the life course: a systematic review and meta-analysis.. *Am J Clin Nutr*, 103(2), 481-494.
78. Wen, K. -X., Miliç, J., El-Khodori, B., Dhana, K., Nano, J., Pulido, T., . . . Franco, O. H. (2016). The Role of DNA Methylation and Histone Modifications in Neurodegenerative Diseases: A Systematic Review.. *PLoS One*, 11(12), e0167201.
79. Muka, T., Nano, J., Voortman, T., Braun, K. V. E., Ligthart, S., Stranges, S., . . . Franco, O. H. (2016). The role of global and regional DNA methylation and histone modifications in glycemic traits and type 2 diabetes: A systematic review.. *Nutr Metab Cardiovasc Dis*, 26(7), 553-566.
80. GBD 2013 Risk Factors Collaborators., Forouzanfar, M. H., Alexander, L., Anderson, H. R., Bachman, V. F., Biryukov, S., . . . Murray, C. J. (2015). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 386(10010), 2287-2323.
81. GBD 2013 DALYs and HALE Collaborators., Murray, C. J. L., Barber, R. M., Foreman, K. J., Abbasoglu Ozgoren, A., Abd-Allah, F., . . . Vos, T. (2015). Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: quantifying the epidemiological transition.. *Lancet*, 386(10009), 2145-2191.
82. Feigin, V. L., Krishnamurthi, R. V., Parmar, P., Norrving, B., Mensah, G. A., Bennett, D. A., . . . GBD 2013 Stroke Panel Experts Group. (2015). Update on the Global Burden of Ischemic and Hemorrhagic Stroke in 1990-2013: The GBD 2013 Study.. *Neuroepidemiology*, 45(3), 161-176.
83. Krishnamurthi, R. V., deVeber, G., Feigin, V. L., Barker-Collo, S., Fullerton, H., Mackay, M. T., . . . Roth, G. A. (2015). Stroke Prevalence, Mortality and Disability-Adjusted Life Years in Children and Youth Aged 0-19 Years: Data from the Global and Regional Burden of Stroke 2013. *Neuroepidemiology*, 45(3), 177-189.
84. Krishnamurthi, R. V., Moran, A. E., Feigin, V. L., Barker-Collo, S., Norrving, B., Mensah, G. A., . . . Roth, G. A. (2015). Stroke Prevalence, Mortality and Disability-Adjusted Life Years in Adults Aged 20-64 Years in 1990-2013: Data from the Global Burden of Disease 2013 Study. *Neuroepidemiology*, 45(3), 190-202.
85. Leermakers, E. T. M., Moreira, E. M., Kieft-de Jong, J. C., Darweesh, S. K. L., Visser, T., Voortman, T., . . . Franco, O. H. (2015). Effects of choline on health across the life course: a systematic review.. *Nutr Rev*, 73(8), 500-522.
86. Franco, O. H., Muka, T., Colpani, V., Kunutsor, S., Chowdhury, S., **Chowdhury, R.**, & Kavousi, M. (2015). Vasomotor symptoms in women and cardiovascular risk markers: Systematic review and meta-analysis.. *Maturitas*, 81(3), 353-361.
87. Chaker, L., Falla, A., van der Lee, S. J., Muka, T., Imo, D., Jaspers, L., **Chowdhury, R.**,..... Franco, O. H. (2015). The global impact of non-communicable diseases on macro-economic productivity: a systematic review.. *Eur J Epidemiol*, 30(5), 357-395.
88. Muka, T., Imo, D., Jaspers, L., Colpani, V., Chaker, L., van der Lee, S. J., **Chowdhury, R.**,..... Franco, O. H. (2015). The global impact of non-communicable diseases on healthcare spending and national income: a systematic review.. *Eur J Epidemiol*, 30(4), 251-277.

89. Kunutsor, S. K., Bakker, S. J. L., Gansevoort, R. T., **Chowdhury, R.**, & Dullaart, R. P. F. (2015). Circulating total bilirubin and risk of incident cardiovascular disease in the general population.. *Arterioscler Thromb Vasc Biol*, 35(3), 716-724.
90. GBD 2013 Mortality and Causes of Death Collaborators. (2015). Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 385(9963), 117-171.
91. Global Burden of Disease Study 2013 Collaborators. (2015). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 386(9995), 743-800.
92. Newton, J. N., Briggs, A. D. M., Murray, C. J. L., Dicker, D., Foreman, K. J., Wang, H., . . . , **Chowdhury, R.**, . . . , Davis, A. C. J. (2015). Changes in health in England, with analysis by English regions and areas of deprivation, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 386(10010), 2257-2274.
93. Interleukin 1 Genetics Consortium. (2015). Cardiometabolic effects of genetic upregulation of the interleukin 1 receptor antagonist: a Mendelian randomisation analysis.. *Lancet Diabetes Endocrinol*, 3(4), 243-253.
94. Jaspers, L., Colpani, V., Chaker, L., van der Lee, S. J., Muka, T., Imo, D., . . . , **Chowdhury, R.**, . . . , Franco, O. H. (2015). The global impact of non-communicable diseases on households and impoverishment: a systematic review.. *Eur J Epidemiol*, 30(3), 163-188.
95. Wang, H., Liddell, C. A., Coates, M. M., Mooney, M. D., Levitz, C. E., Schumacher, A. E., . . . , **Chowdhury, R.**, . . . , Murray, C. J. L. (2014). Global, regional, and national levels of neonatal, infant, and under-5 mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 384(9947), 957-979.
96. Baena, C. P., Olandoski, M., Younge, J. O., Buitrago-Lopez, A., Darweesh, S. K. L., Campos, N., . . . , **Chowdhury, R.**, . . . , Franco, O. H. (2014). Effects of lifestyle-related interventions on blood pressure in low and middle-income countries: systematic review and meta-analysis. *Journal of Hypertension*, 32(5), 961-973.
97. Ng, M., Fleming, T., Robinson, M., Thomson, B., Graetz, N., Margono, C., . . . , **Chowdhury, R.**, . . . , Gakidou, E. (2014). Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for the Global Burden of Disease Study 2013.. *Lancet*, 384(9945), 766-781.
98. Ahmadi-Abhari, S., Luben, R. N., Powell, N., Bhaniani, A., **Chowdhury, R.**, Wareham, N. J., . . . , Khaw, K. -T. (2014). Dietary intake of carbohydrates and risk of type 2 diabetes: the European Prospective Investigation into Cancer-Norfolk study.. *Br J Nutr*, 111(2), 342-352.
99. Pan, A., Chen, M., **Chowdhury, R.**, Wu, J. H. Y., Sun, Q., Campos, H., . . . , Hu, F. B. (2012). α -Linolenic acid and risk of cardiovascular disease: a systematic review and meta-analysis.. *Am J Clin Nutr*, 96(6), 1262-1273.
100. Kieft-de Jong, J. C., **Chowdhury, R.**, & Franco, O. H. (2012). Fish intake or omega-3 fatty acids: greater than the sum of all parts?. *Eur J Epidemiol*, 27(12), 891-894.
101. Anchala, R., Pinto, M. P., Shroufi, A., **Chowdhury, R.**, Sanderson, J., Johnson, L., . . . , Franco, O. H. (2012). The role of Decision Support System (DSS) in prevention of cardiovascular disease: a systematic review and meta-analysis.. *PLoS One*, 7(10), e47064.

102. Erzurumluoglu, A. M., Liu, M., Jackson, V. E., Barnes, D. R., Datta, G., Surendran, P., . . . Howson, J. M. M. (n.d.). Meta-analysis of up to 622,409 individuals identifies 40 novel smoking behaviour associated genetic loci. *Molecular Psychiatry*. 2019;10.1038/s41380-018-0313-0.
103. Murray, C. J. L., Callender, C. S. K. H., Kulikoff, X. R., Srinivasan, V., Abate, D., Abate, K. H., . . . Coll, G. B. D. . P. F. (2018). Population and fertility by age and sex for 195 countries and territories, 1950-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*, 392(10159), 1995-2051.
104. Lozano, R., Fullman, N., Abate, D., Abay, S. M., Abbafati, C., Abbasi, N., . . . Collaborators, G. B. D. . S. D. G. (2018). Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*, 392(10159), 2091-2138.
105. James, S. L. G., Abate, D., Abate, K. H., Abay, S. M., Abbafati, C., Abbasi, N., . . . Pr, G. B. D. . D. I. I. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *LANCET*, 392(10159), 1789-1858.
106. Stanaway, J. D., Afshin, A., Gakidou, E., Lim, S. S., Abate, D., Abate, K. H., . . . Murray, C. J. L. (2018). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*, 392(10159), 1923-1994.
107. Roth, G. A., Abate, D., Abate, K. H., Abay, S. M., Abbafati, C., Abbasi, N., . . . Bali, A. G. (2018). Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*, 392(10159), 1736-1788.
108. Glisic, M., Kastrati, N., Gonzalez-Jaramillo, V., Bramer, W. M., Ahmadizar, F., **Chowdhury, R.**, . . . Muka, T. (2018). Associations between Phytoestrogens, Glucose Homeostasis, and Risk of Diabetes in Women: A Systematic Review and Meta-Analysis.. *Adv Nutr*, 9(6), 726-740.
109. Shroufi, A., **Chowdhury, R.**, Aston, L. M., Pashayan, N., & Franco, O. H. (2011). Measuring health: a practical challenge with a philosophical solution?. *Maturitas*, 68(3), 210-216.
110. Roy, S. K., Raqib, R., Khatun, W., Azim, T., **Chowdhury, R.**, Fuchs, G. J., & Sack, D. A. (2008). Zinc supplementation in the management of shigellosis in malnourished children in Bangladesh. *Eur J Clin Nutr*, 62(7), 849-855.
111. Roy, S. K., Raqib, R., Khatun, W., Azim, T., **Chowdhury, R.**, Chowdhury, S., ..Sack, D. A. (2007). Zinc supplementation in the management of shigellosis and its effects on subsequent follow-up. *Ann Nutr Metab*, 51, 92.
112. Roy, S. K., Tomkins, A. M., Ara, G., Jolly, S. P., Khatun, W., **Chowdhury, R.**, & Chakrabarty, B. (2006). Impact of zinc deficiency on vibrio cholerae enterotoxin-stimulated water and electrolyte transport in animal model.. *J Health Popul Nutr*, 24(1), 42-47.
113. Klarin D, Damrauer S.M., Cho. K.,.... **Chowdhury, R.**,...& Assimes, T. L. (2018). Genetics of Blood Lipids Among ~300,000 Multi-Ethnic Participants of the Million Veteran Program. *Nature Genetics*. *Nature Genetics*, 50, 1514–1523 (2018).

Curriculum Vitae *2020*

Nathan J. Dorn

Professor
Department of Biological Sciences
Florida Atlantic University
3200 College Avenue
Davie, FL 33314
ndorn1@fau.edu
Phone: 954-236-1315

EDUCATION:

Ph. D., 2003 Michigan State University, East Lansing, MI
Zoology and Ecology Evolution and Behavior (dual)

B. S., 1997 Calvin College, Grand Rapids, MI
Biology

PREVIOUS POSITIONS:

2011-2018 Associate Professor
Department of Biological Sciences
Florida Atlantic University, Boca Raton, FL

2016 Visiting Associate Professor
SE Environmental Research Center
Florida International University, Miami, FL

2005-2011 Assistant Professor
Department of Biological Sciences
Florida Atlantic University, Boca Raton, FL

2004-2005 Visiting Research Associate
Southeast Environmental Research Center &
Department of Biological Sciences
Florida International University, Miami, FL

2003-2004 Postdoctoral Researcher
Department of Biological Sciences
Florida International University, Miami, FL

RESEARCH INTERESTS:

Population and community ecology in freshwater ecosystems
Predator-prey interactions
Wetland ecology and restoration
Ecology of freshwater invertebrates

REFEREED WORKS: (*student authors from my lab; graduate or undergraduate)

In Preparation or In Review

- Gutekunst, J., O. Maiakovska, G. Venkatesh, K. Hanna, H. Horn, S. Wolf, C. E. Skelton, **N. J. Dorn**, F. Lyko. *In Prep.* Nascent genome evolution and speciation of the parthenogenetic marbled crayfish.
- Drumheller*, D. K., M. I. Cook and **N. J. Dorn**. *In Prep.* Displacement of a native gastropod by an invasive congener: the case for chemical inhibition.
- Hansen*, C., C. J. Saunders, S. Newman, E. Tate-Boldt and **N. J. Dorn**. *In Prep.* Flow-mediated growth of an aquatic herbivore.

Published or Accepted

- Cocoves*, T, M. I. Cook, J. Kline, L. Oberhofer, **N. J. Dorn**. *Accepted -Oct 2020*. Irruptive White Ibis breeding associated with use of freshwater crayfish in the coastal Everglades. *The Condor: Ornithological Applications*
- Binkley*, E. E., **N. J. Dorn** & M. I. Cook. 2019. Feeding on the edge: Foraging White Ibis target inter-habitat prey fluxes. *Journal of Field Ornithology* 90: 235-247.
- Vogt, G., **N. J. Dorn**, M. Pfeiffer, C. Lukhaup, B. W. Williams, A. Schrimpf. 2019. The dimension of biological change caused by autotriploidy: a meta-analysis with marbled crayfish and *Procambarus fallax*. *Zoologischer Anzeiger* 281: 53-67.
- Davidson*, A. T. & **N. J. Dorn**. 2018. System productivity alters predator sorting of a size-structured mixed prey community. *Oecologia* 186: 1101-1111.
- Vogt, G., C. Lukhaup, B. W. Williams, M. Pfeiffer, **N. J. Dorn**, R. Schulz & A. Shrimpf. 2018. Morphological characterization and genotyping of the marbled crayfish and new evidence on its origin. *Zootaxa* 4524: 329-350.
- Davidson*, A. T. & **N. J. Dorn**. 2017. Life history traits determine the vulnerability of two species of apple snails (*Pomacea* spp.) to a shared juvenile-stage predator. *Aquatic Ecology* 51: 331-341.
- van der Heiden* C. A. & **N. J. Dorn**. 2017. Benefits of adjacent habitat patches to the distribution of a crayfish population in a hydro-dynamic wetland landscape. *Aquatic Ecology* 51: 219-233.
- Dorn, N. J.** & M. Hafsadi*. 2016. Native crayfish consume more non-native than native apple snails. *Biological Invasions* 18: 159-167.
- Holbrook*, J. D. & **N. J. Dorn**. 2016. Effects of fish on reptile and amphibian assemblages in wetlands of variable permanence. *Freshwater Biology* 61: 100-109.
- Knorp*, N. E. & **N. J. Dorn**. 2016. Consumptive effects of fish predators drive composition of emerging dragonfly assemblages in structured and unstructured habitats. *Freshwater Science* 35: 114-125.

- Dorn, N. J.** & M. I. Cook. 2015. Hydrological disturbance diminishes predator control in wetlands. *Ecology* 96: 2984-2993.
- Knorp*, N. E. & **N. J. Dorn**. 2014. Dissimilar numerical responses of macroinvertebrates to disturbance from drying and predatory sunfish. *Freshwater Biology* 59: 1378-1388.
- Boyle*, R. A., **N. J. Dorn** & M. I. Cook. 2014. Importance of crayfish prey to nesting White Ibis (*Eudocimus albus*) populations. *Waterbirds* 37: 19-29.
- Dorn, N. J.** 2013. Consumptive effects of crayfish limit snail populations. *Freshwater Science* 32: 1298-1308.
- Bransky*, J. W. & **N. J. Dorn**. 2013. Prey use of three wetland sunfishes: effects of ontogeny, gape size and seasonal prey variation. *Environmental Biology of Fishes* 96: 1329-1340.
- Boyle*, R. A. **N. J. Dorn** & M. I. Cook. 2012. Dietary niche relationships of three species of wading birds nesting together in the Florida Everglades. *Waterbirds* 35: 154-159.
- Kellogg*, C. M. & **N. J. Dorn**. 2012. Consumptive effects of fish reduce wetland crayfish recruitment and drive species turnover. *Oecologia* 168: 1111-1121. DOI: 10.1007/s00442-011-2162-2
- Dorn, N. J.**, M. I. Cook, G. Herring, R. Boyle*, J. Nelson* & D. E. Gawlik. 2011. Diet variation among White Ibis (*Eudocimus albus*) chicks: prey composition depends on recent hydrologic conditions. *Ibis* 153: 323-335.
- P. Martin, **N. J. Dorn**, T. Kawai, C. van der Heiden* & G. Scholtz. 2010. The enigmatic Marmorkrebs (marbled crayfish) is the parthenogenetic form of *Procambarus fallax*. *Contributions to Zoology* 79: 107-118.
- Dorn, N. J.** & J. C. Volin. 2009. Resistance of crayfish (*Procambarus* spp.) populations to wetland drying depends on species and substrate. *Journal of the North American Benthological Society* 28: 766-777.
- Dorn, N. J.**, G. Herring, & D. E. Gawlik. 2008. Estimation of crayfish abundance and size-structure in White Ibis diets. *Waterbirds* 31: 417-423.
- Dorn, N. J.** 2008. Colonization and reproduction of large macroinvertebrates are enhanced by drought-related fish reductions. *Hydrobiologia* 605: 209-218.
- Dorn, N. J.**, & J. C. Trexler. 2007. A shifting predator-permanence gradient promotes crayfish regional coexistence in an open wetland landscape. *Freshwater Biology* 52: 2399-2411.
- Dorn, N. J.**, J. C. Trexler, & E. E. Gaiser. 2006. Exploring the role of large predators in marsh food webs: evidence for a behaviorally-mediated trophic cascade. *Hydrobiologia* 569: 375-386.
- Dorn, N. J.**, R. Urgelles, & J. C. Trexler. 2005. Evaluating active and passive sampling methods to quantify crayfish density in a freshwater marsh. *Journal of the North American Benthological Society* 24: 346-356.
- Steiner, C. F., T. L. Darcy, **N. J. Dorn**, E. A. Garcia, G. G. Mittelbach, & J. M. Wojdak 2005. The influence of consumer diversity and indirect facilitation on trophic-level biomass and stability. *Oikos* 110: 556-566.
- Dorn, N. J.** & G. G. Mittelbach. 2004. Effects of a native crayfish (*Orconectes virilis*) on the reproductive success and nesting behavior of sunfish (*Lepomis* spp.). *Canadian Journal of Fisheries and Aquatic Sciences* 61: 2135-2143
- Mittelbach G. G., T. L. Darcy, **N. J. Dorn**, E. A. Garcia, C. F. Steiner, & J. M. Wojdak. 2004. The impact of density-independent mortality on species coexistence: an experimental test with zooplankton. *Oikos* 107: 415-421.

- Dorn, N. J.** & J. M. Wojdak. 2004. The role of omnivorous crayfish in littoral communities. *Oecologia* 140: 150-159.
- Hamilton, S. K., J. L. Tank, D. F. Raikow, E. Siler, **N. J. Dorn**, & N. Leonard. 2004 Stable isotope enrichments to study stream food webs: a new approach to data interpretation. *Journal of the North American Benthological Society* 23: 429-448.
- Dorn, N. J.**, G. Cronin, & D. M. Lodge. 2001. Feeding preference and performance of a semi-aquatic lepidopteran on aquatic macrophytes: plant hosts as food and habitat. *Oecologia* 128: 406-415.
- Dorn, N. J.** & G. G. Mittelbach. 1999. More than predator and prey: a review of interactions between fish and crayfish. *Vie et Milieu* 49: 229-237.

CONTRACTS, GRANTS, AWARDS:

(\$1,597,160.00 – total externals completed or in progress at FAU)

*current

External:

- ***Dorn, N. J.** DECOMP Physical Model: Fauna Monitoring Phase 2. \$115,000.00 (Sept 2020 – Sept 2021, South Florida Water Management District). Dorn is PI.
- ***Dorn, N. J.** Population Responses of Macroinvertebrates to Wet Season Depth Variation. \$149,977.00 (Dec 2018-Sept 2021, South Florida Water Management District). Dorn is PI.
- ***Dorn, N. J.** Spatial Ecology of Bobcats (*Lynx rufus*) in the Everglades. \$98,129.00. (Oct 2019-Sept. 2021, United States Geological Survey, Cooperative Ecosystems Studies Unit). Dorn is PI.
- ***Dorn, N. J.** DECOMP Physical Model: Biological Responses to Flow. \$550,000.00 (Apr 2017 – April 2021, South Florida Water Management District). Dorn is PI.
- Dorn, N. J.** Biological comparisons of clonal and sexually-reproducing crayfish. \$16,400.00 (\$4,000 to Dorn) (May – Sept 2019). STEM Undergraduate Research Award through Miami-Dade College supporting J. Fuentes. Dorn was Co-PI.
- Dorn, N. J.** Analysis of White Ibis chick diets in Lake Okeechobee. \$24,575.00. (total of 4 annual awards from June 2015-Feb 2019, South Florida Water Management District). Dorn was PI.
- Dorn, N. J.** Wading bird foraging and prey concentrations: effects of proximate deep water. \$100,000.00 (Oct 2016-Sept. 2018, South Florida Water Management District). Dorn was PI.
- Dorn, N. J.** Identifying and quantifying the prey of nesting White Ibis in Everglades National Park. \$41,800.00 (Jan. 2017- December 2018 Everglades National Park: Cooperative Ecosystems Studies Unit). Dorn was PI.
- Dorn, N. J.** Wildlife and Nutrient Cycling Review. \$6,000.00. (Jan. 2013- June 2013 South Florida Water Management District) Dorn was PI.
- Dorn, N. J.** Experimental Examination of the Predator-Release Hypothesis on Wading Bird Supercolony formation in the Florida Everglades. \$149,966.00. (May 2010-Sept. 2013, South Florida Water Management District) Dorn was PI.
- Dorn, N. J.** Habitat suitability models for Everglades and Slough Crayfish. \$10,000.00 (May 2009-April 2010, United States Geological Survey: Joint Ecological Modeling lab). Dorn

was PI.

Dorn, N. J. Assessing Aquatic Animal Community Responses to Hydrological Variation in Sloughs. \$25,000.00 (Dec. 2009-July 2010, South Florida Water Management District) Dorn was PI.

Dorn, N. J. Crayfish population studies. \$30,000.00 (Dec. 2008-Oct. 2009, South Florida Water Management District. Dorn was PI.

Dorn, N. J. Diet Analysis of White Ibis chicks. \$15,000.00 (Jan. 2009-Feb. 2010 South Florida Water Management District). Dorn was PI.

Dorn, N. J. Habitat Suitability Models for Procambarid crayfish of the Everglades. \$10,000.00 (Feb. 2008-Jan. 2009, United States Geological Survey: Joint Ecological Modelling lab). Dorn was PI.

Dorn, N. J. Diet Analysis of White Ibis chicks. \$6,000.00 (May 2008-Feb. 2009, South Florida Water Management District). Dorn was PI.

Dorn, N. J. & J. C. Volin. Crayfish population dynamics: Hydrological Influences. \$180,000.00 (July 2007-July 2009, South Florida Water Management District). Dorn was PI.

Dorn, N. J. Assessment of fish communities in waterways of Big Cypress Seminole Indian Reservation. \$25,000.00 (June-Dec. 2007, Seminole Tribe of Florida/USFWS). Dorn was PI.

Dorn, N. J. & J. D. Baldwin. Assessment of fish communities in waterways of Big Cypress and Brighton Seminole Indian Reservations. \$56,713.00. (Jan.-Dec. 2006, Seminole Tribe of Florida/U. S. Fish and Wildlife Service). Dorn was PI.

Trexler, J. C. & **N. J. Dorn.** Analysis of crayfish sampling methodologies for the Everglades ecosystem. \$49,500.00. (July-Dec. 2003, South Florida Water Management District) Dorn was co-PI (Florida International University).

Internal:

Dorn, N. J. Reproduction and competition between sexual and parthenogenetic crayfishes. \$4,000.00. (April – Sept 2018). STEM Undergraduate award through Miami-Dade College supporting A. Fall. Dorn was contributor and advisor of one of four projects.

Dorn, N.J. \$3000.00 (2015) Quantifying Wading Bird Foraging Activity in Drying Wetlands with Time-Lapse Imagery. FAU Broward Undergraduate Research Award for H. Campbell.

Dorn, N. J. & J. D. Baldwin. \$3,000.00 (2014) Morphological and genetic identification and ecology of early life stages of invasive and native apple snails. FAU Broward Undergraduate Research Award for P. Polpornvitoon and E. Santos.

Benscoter, B. & **N. J. Dorn.** (2012) \$8,000.00 “Cascading impacts of vegetation change in the Florida Everglades: linking vegetation to crayfish populations through peat characteristics.” SEED Grant from Florida Atlantic University. Dorn was co-PI.

RESEARCH STAFF (at FAU):

Biological Technicians:

Ethan Peters: 2007-2008

Meghan Weaver: 2007

Lisa Jackson: 2017

Christopher Hansen: 2017-present
Allyson Genson: 2018- present

AWARDS and FELLOWSHIPS (prior to employment at FAU):

National Science Foundation: Research Training Grant Fellowship, MSU, 1998-2002.
MSU - G. H. Lauff Research Awards (MSU/KBS), \$500 (1999 & 2002)
MSU - Graduate School Travel Awards (Dept. of Zoology) (1997-2002).
MSU - EEBB Program Award, \$200, 1998.
National Science Foundation: Research Experience for Undergraduates Award, University of Notre Dame, 1996.
Karsten Biology Scholarship, Calvin College Biology Department, 1995, 1996.

PRESENTATIONS:

Invited Seminars

Dorn, N. J. 2020. Will restoration promote White Ibis nesting in the southern Everglades? Everglades Ecosystem Based Management Meeting. US Fish and Wildlife Service. (Virtual)

Dorn, N. J., D. Drumheller, & J. Sommer. 2020. Faunal Responses to Wet Season Hydropattern Variation. Presentation to the LILA Coordination/Science Committee meeting at the A.R.M. Loxahatchee National Wildlife Refuge.

Dorn, N. J. 2019. Hydrological disturbance diminishes predator control in wetlands. Biological Sciences Seminar Series. University of South Florida, Tampa, FL.

Dorn, N. J. 2018. Hydrological disturbance diminishes predator control in wetlands. Biology Seminar Series. University of Miami, Coral Gables, FL.

Dorn, N. J. 2017. Apple Snails and Crayfish in wetlands. Snail Kite Coordinating Committee Semi-annual meeting. Vero Beach, FL.

Dorn, N. J. 2016. Hydrological disturbance diminishes predator control in wetlands. Marine Sciences Seminar Series, Florida International University, N. Miami, FL.

Dorn, N. J. 2015. Hydrological disturbance diminishes predator control in wetlands. Archbold Biological Station, Venus, FL.

Dorn, N. J. 2015. Hydrological disturbance diminishes predator control in wetlands. Department of Biological Sciences, Wichita State University, Wichita, KS.

Dorn, N. J. 2015. What is Everglades Restoration? Department of Biological Sciences, Wichita State University, Wichita, KS.

Dorn, N. J. 2014. Pulsed dry disturbances release wetland crayfish from predator limitation. Department of Biological Sciences, Auburn University, Auburn, AL.

Dorn, N. J. 2014. Potential for native predators to limit exotic apple snails in wetlands. South Florida Water Management District, Stormwater Treatment Area division, West Palm Beach, FL.

Dorn, N. J. 2013. Freshwater Community Ecology. Honors Biology Program at Florida Atlantic University. 15 March 2013.

Dorn, N. J. 2010. Crayfish Niches and Everglades Restoration. Invited Seminar for FAU Geosciences Colloquium Series.

- Dorn, N. J. & M. I. Cook. 2009. LILA food web studies: crayfish populations, fish abundance, and wading bird foraging. Presentation to the LILA Coordination/Science Committee meeting at the A.R.M. Loxahatchee National Wildlife Refuge.
- Dorn, N. J. 2009. Crayfish population resistance to drought-“disturbance” is context dependent: results from sampling studies and experiments. South Florida Water Management District Environmental Division.
- Dorn, N. J. & J. C. Volin. 2008. Crayfish Population Dynamics: Hydrological Influences. SFWMD RECOVER Division governing board.
- Dorn, N. J. 2005. Effects of omnivorous crayfish on fish populations and the structure of pond communities. Florida Atlantic University, Department of Biological Sciences.
- Dorn, N. J. 2004. Effects of omnivorous crayfish on fish populations and the structure of pond communities. Florida International University, Department of Biological Sciences Seminar series.

Oral Presentations

- Drumheller, D. and N. J. Dorn. 2020. Does interspecific competition between snails lead to native exclusion? Snail Kite Coordinating Committee Semi-annual meeting. (Virtual)
- Peacor, S., D. Kimbro, N. J. Dorn, MJ Cherry, M Sheriff, J. Smith. 2020. A framework that identifies and prioritizes how ecologists are testing for predation-risk effects in the field. *Ecological Society of America*, Annual Meeting. (Virtual)
- Drumheller, D. and N. J. Dorn. 2019. Competition between *P. paludosa* and *P. maculata* in the field. Snail Kite Coordinating Committee Semi-annual meeting. St. Cloud, FL.
- Cocoves, T. C., N. J. Dorn and M. I. Cook. 2019. Nesting White Ibis Prey Composition of Coastal Colonies in Everglades National Park. *Greater Everglades Ecosystem Restoration conference*. Coral Springs, FL.
- Cocoves, T. C., N. J. Dorn and M. I. Cook. 2018. Nesting White Ibis Prey Composition of Coastal Colonies in Everglades National Park. Florida Ornithological Society Meeting. Davie, FL.
- Holbrook, J. D. and N. J. Dorn. 2014. Factors Influencing Wetland Reptile and Amphibian Community Composition. JMIH. Chattanooga, TN.
- Dorn, N. J. and M. I. Cook. 2013. Dry disturbance and fish reduction produce enhanced crayfish densities in a freshwater wetland. *Society for Freshwater Science* annual meeting, Jacksonville, FL.
- Knorp, N. and N. J. Dorn. 2013. Dissimilar numerical responses of crayfish and dragonflies to dry disturbances and predatory sunfishes in wetlands. *Society for Freshwater Science* annual meeting, Jacksonville, FL.
- Dorn, N. J. and M. I. Cook. 2012. Dry disturbance and fish reduction produce enhanced crayfish densities in a freshwater wetland. *Society of Wetland Scientists/INTECOL and Greater Everglades Ecosystem Restoration* (joint Conference), Orlando, FL.
- Boyle, R. A., N. J. Dorn & M. I. Cook. 2010. Diet Composition of White Ibis Chicks in Loxahatchee National Wildlife Refuge: Crayfish, Crayfish and more Crayfish. *Greater Everglades Ecosystem Restoration Conference*, Naples, FL.
- Dorn, N. J. 2010. Wetland drying has Substrate- and Species-Dependent Effects on Crayfish (*Procambarus* spp.) Populations. *Greater Everglades Ecosystem Restoration Conference*, Naples, FL.

- van der Heiden, C. A. & N. J. Dorn. 2010. Testing habitat selection theory with a wetland crayfish (*Procambarus fallax*) distributed across two vegetated habitats. *Ecological Society of America* annual meeting, Pittsburgh, PA.
- Dorn, N. J., & J. C. Trexler. 2006. Crayfish assemblages in the Everglades: results from field patterns and experiments suggest drought and predators determine the composition. *Greater Everglades Ecosystem Restoration Conference*, Lake Buena Vista, FL.
- Dorn, N. J., & J. C. Trexler. 2005. Drought-induced shifts in a wetland crayfish assemblage. *Ecological Society of America* annual meeting, Montreal, Quebec, CAN.
- Dorn, N. J., J. C. Trexler, & R. Urgelles. 2004. Monitoring crayfish populations in the Everglades: Evaluation of methods and long-term trends. *National Conference on Ecosystem Restoration*, Lake Buena Vista, FL.
- Dorn, N. J. & J. M. Wojdak. 2003. Crayfish alter succession of pond communities. *Ecological Society of America* annual meeting, Savannah, GA.
- Dorn, N. J. & G. G. Mittelbach. 2002. Egg predation by crayfish negatively affects sunfish (*Lepomis*) reproductive success. *North American Benthological Society* annual meeting, Pittsburgh, PA.
- Dorn, N. J. & G. G. Mittelbach. 2002. Egg predation by crayfish negatively affects sunfish (*Lepomis*) reproductive success. *Ecological Society of America* annual meeting, Tucson, AZ.
- Dorn, N. J., G. Cronin, & D. M. Lodge. 1997. Feeding preferences and performance of an aquatic lepidopteran on water lilies. *Midwest Ecology and Evolution Conference*, Louisville, KY.

Poster Presentations

- Drumheller, D. K. and N. J. Dorn. 2020. Invasive apple snail locally excluding native Florida apple snail. *Ecological Society of America*, Annual Meeting. (Virtual)
- Sommer, J. and N. J. Dorn. 2020. Effects of water depth on predation risk in wetlands. *Ecological Society of America*, Annual Meeting. (Virtual)
- Fuentes, J. and N. J. Dorn. 2019. Comparative fecundity and behavior of the clonal *Procambarus virginalis* and its parent *Procambarus fallax*. Miami-Dade College STEM Research Day. Miami, FL.
- Binkley, E., N. J. Dorn, M. I. Cook. 2019. Feeding on the Edge: Foraging White Ibis (*Eudocimus albus*) target inter-habitat prey movements. *Greater Everglades Ecosystem Restoration conference*, Coral Springs, FL.
- Binkley, E., N. J. Dorn, M. I. Cook. 2018. Feeding on the Edge: Foraging White Ibis (*Eudocimus albus*) target inter-habitat prey movements. Florida Ornithological Society annual conference, Davie, FL.
- Fall, A. Garlaschi, G. and N. J. Dorn. 2018. Trait comparisons of a novel clonal crayfish species with its parent: *Procambarus virginalis* vs. *Procambarus fallax*. Miami-Dade College STEM Research Day. Miami, FL.
- Cocoves, T., N. J. Dorn, M. I. Cook. 2018. Nesting White Ibis Prey Composition of Coastal Colonies in South Florida. International Ornithological Conference, Vancouver, BC, CAN.
- Binkley, E., N. J. Dorn, M. I. Cook. 2018. Feeding on the Edge: Foraging White Ibis (*Eudocimus albus*) target inter-habitat prey movements. International Ornithological Conference, Vancouver, BC, CAN.

- Dorn, N. J. 2018. Hydrological Droughts Produce Temporary Prey Pulses Consistent with the Consumer Stress Model. Gordon Research Conference, Ventura, CA.
- Cocoves, T. and N. J. Dorn. 2018. Nesting White Ibis Prey Composition of Coastal Colonies in Everglades National Park. FAU Broward Campuses Research Day. Davie, FL. *** Best Poster Award ***
- Cocoves, T. and N. J. Dorn. 2018. Nesting White Ibis Prey Composition of Coastal Colonies in Everglades National Park. FAU Graduate College Research Day. Boca Raton, FL *** Community Engaged Research Award ***
- Davidson, A. and N. J. Dorn 2016. Size-Structured Predation of Invasive Juvenile Apple Snails (*Pomacea maculata*) by Crayfish (*Procambarus fallax*). Ecological Society of America Annual Meeting, Fort Lauderdale, FL. August 2016
- Campbell, H. and N. J. Dorn. 2016. Quantifying Wading Bird Foraging Activity Using Time Lapse Imagery. FAU Undergraduate Research Day
- Davidson, A. and N. J. Dorn 2016. Size-Structured Predation of Invasive Juvenile Apple Snails (*Pomacea maculata*) by Crayfish (*Procambarus fallax*). FAU Broward Campuses Research Day
- Campbell, H. and N. J. Dorn. 2016. Quantifying Wading Bird Foraging Activity Using Time Lapse Imagery. FAU Broward Campuses Research Day
- Molero, J, M. Finn, D. Essian, J. May, N. J. Dorn. 2016. Size-and Gender-Selective Predation on Crayfish by White Ibis (*Eudocimus albus*) In Lake Okeechobee. FAU Broward Campuses Research Day
- Santos, E, N. J. Dorn, J. Baldwin. 2016. Genetic diversity of Florida populations of invasive apple snails. FAU Undergraduate Research Day
- Dorn, N. J. and M. Hafsadi. 2015. Native crayfish consume more exotic than native apple snails. *Greater Everglades Ecosystem Restoration Conference*. Coral Springs, FL
- Holbrook, J. D. and N. J. Dorn. 2014. Factors Influencing Wetland Reptile and Amphibian Community Composition. FAU Environmental Science Research Symposium. **Best Poster Award**
- Holbrook, J. D. and N. J. Dorn. 2014. Factors Influencing Wetland Reptile and Amphibian Community Composition. FAU College of Science Research Day.
- Chapman, A., B. Benschoter and N. J. Dorn. 2014. The Cascading effects of vegetation on peat soil properties and crayfish survival in the Florida Everglades. FAU College of Science Research Day.
- Knorp N. E. and N. J. Dorn 2013. Effects of habitat structure and predators on dragonfly oviposition and success. FAU Broward Campuses Research Day **Best Poster Award**
- Knorp N. E. and N. J. Dorn 2013. Effects of habitat structure and predators on dragonfly oviposition and success. FAU College of Science Research Day
- Bransky J. W. and N. J. Dorn 2012. Prey Use of Three Wetland Sunfishes: Effects of Ontogeny, Gape Size, and Seasonal Prey Variation. *Society of Wetland Scientists/INTECOL and Greater Everglades Ecosystem Restoration* (joint Conference), Orlando, FL.
- Knorp N. E. and N. J. Dorn 2012. Drought and Large Fish Re-Colonization Have Variable Effects on Macroinvertebrates in Experimental Wetlands. *Society of Wetland Scientists/INTECOL and Greater Everglades Ecosystem Restoration* (joint Conference), Orlando, FL.
- Dorn, N. J. 2010. Comparing trophic effects of two crayfish (*Procambarus* spp.) living across a hydroperiod gradient. *Ecological Society of America Annual Meeting*. Pittsburgh, PA.

- Kellogg, C. M. & N. J. Dorn. 2010. Effects of sunfish predators on crayfish (*Procambarus* spp.) recruitment and species turnover. *Ecological Society of America Annual Meeting*. Pittsburgh, PA.
- Boyle, R.A., N. J. Dorn, J. Nelson, G. Herring, & M. I. Cook. 2009. Quantifying the variable diets of White Ibis in the Everglades. *The Wildlife Society Annual Meeting*, Monterey, CA.
- Dorn, N. J. 2008. Seasonal succession and annual hydrologic patterns drive aquatic community structure and biomass in forested wetlands of the Big Cypress. *Greater Everglades Ecosystem Restoration Conference*, Naples, FL.
- Dorn, N. J., L. Brandt & L. Pearlstine. 2007. Modeling Crayfish (*Procambarus alleni*) Habitat Suitability in the Everglades: Positive and Negative Effects of Hydrology. *National Conference on Ecosystem Restoration*, Kansas City, MO.
- Urgelles, R., N. J. Dorn, & J. C. Trexler. 2004. The spatial distributions and relative abundance of larval dragonflies (Anisoptera) found in the freshwater marshes of the Florida Everglades. *National Conference on Ecosystem Restoration*, Lake Buena Vista, FL.
- Dorn, N. J. & G. G. Mittelbach. 2000. Effects of crayfish on fish recruitment and invertebrate size-structure in ponds. *Ecological Society of America annual meeting*, Snowbird, UT.

STUDENT ADVISING:

Graduate Advisor

- Nathan Barrus (Expected Fall 2022) M.S. Biological Sciences. Thesis: Mortality and recruitment models of apple snails (*Pomacea* spp).
- Katherine Buckman (Expected Fall 2021) M.S. Environmental Sciences. Thesis: Effect of water depth on wetland habitat use of a feline predator.
- Jeffrey Sommer (Expected Spring 2021) M.S. Environmental Sciences. Thesis: Predator-prey interactions under variable wetland water depths.
- Christopher Hansen (Expected Spring 2021) M.S. Environmental Sciences. Thesis: Macroinvertebrate responses to wetland water flows.
- Danielle Drumheller (M.S. Environmental Sciences 2020). Thesis: Population limitation of the Florida Apple Snail (*Pomacea paludosa*).
- Tasso Cocoves (M.S. Environmental Sciences 2019). Thesis: Importance of freshwater prey for nesting White Ibis, *Eudocimus albus* in southern Florida wetlands.
Present Position: Biologist, Southern Coastal Systems USACOE (GS-9)
- Erin Binkley (MS Environmental Sciences 2018) Thesis: Wading bird foraging and prey concentration in the ridge and slough landscape of the Everglades.
Present Position: Assistant Project Manager, Vertex, Inc.
- Andrew Davidson (M.S. Biological Sciences 2016) Thesis: Effects of wetland productivity on stage-specific predation by crayfish on snails.
Present Position: PhD student at Virginia Commonwealth University (with J. Vonesh)
- Joshua D. Holbrook (M.S. Environmental Sciences 2014) Thesis: Effects of fish on reptile and amphibian community assemblages in wetlands of variable permanence.
Present Position: Instructor at Montreat College, NC
- Natalie E. Knorp (M.S. Environmental Sciences 2013) Thesis: Limitations on macroinvertebrate populations in south Florida wetlands.
Ph.D. from Tennessee Technological University (with J. Murdoch)

Present Position: Environmental Manager, Tennessee Department of Transportation
 Jacob W. Bransky (M.S. Environmental Sciences 2012). Thesis: Diet variation and the consumptive effects of native centrarchids on benthic macroinvertebrates in wetlands.
 Present Position: Aquatic Biologist, Delaware River Basin Commission, Trenton, NJ.
 Craig A. van der Heiden (Ph.D. Integrative Biology 2012). Dissertation: Population distribution, habitat selection and life history of the slough crayfish (*Procambarus fallax*) in the Ridge-Slough Landscape of the central Everglades.
 Present Position: Wildlife Director, Miccosukee Tribe of Florida.
 Christopher M. Kellogg (M.S. Environmental Sciences 2011) Thesis: Effects of sunfish (*Lepomis* spp.) predation on crayfish (*Procambarus* spp.) population density and species turnover.
 Present Position: PhD Student, College of Veterinary Medicine, Michigan St. Univ.
 Robin A. Boyle (M.S. Environmental Sciences 2010) “White Ibis nestling diets in the Everglades: assessing the relationship between diet composition and landscape water depth.”
 Present Position: Sr. Scientist, Sensory Lab, Kalsec Inc., Kalamazoo, Michigan

Co-advisor

Gianna Ramdin (M.S. Biological Sciences 2007). Thesis: Body Condition of Juvenile *Hoplosternum littorale* (Hancock, 1828) in Anthropogenic Refuges on the Big Cypress Seminole Indian Reservation during the 2006 Dry Season. (advisor: J. Baldwin)
 Present Position: Environmental Science Instructor, Broward College, FL.
 Alexander Chapman (M.S. Biological Sciences 2014) Thesis: Crayfish growth and dry season survival with variable Everglades vegetation and soil properties. (advisor: B. Benscoter)
 Present Position: Research Technician USDA, Davie, FL

Graduate committees

Rachael Harris	MS Biology	2007	Wading bird prey vulnerability
Heidi Herring	MS Biology	2007	Wood Stork habitat selection
Emily Rogevich	Ph.D. Int. Biol.	2008	Apple Snail Ecotoxicology
Samantha Lantz	MS Biology	2008	Wading bird habitat choice
Phil Heidemann	MS Biology	2008	Wading birds on the landscape
Rebecca Stanek	MS Biology	2009	Foraging of Scarlet Ibis
Simantha Ather	MS Biology	2009	Models of Plankton Patchiness
Mathew Hanson	MS Env. Sciences	2012	Foraging Ecology of Bald Eagles
Elizabeth Salewski	MS Env. Sciences	2012	Marine benthic community ecology
Bethany Augliere	MS Biology	2012	Spotted Dolphin home range sizes
Tyler Beck	MS Biology	2013	Avian community structure
Megan Reising	MS Biology	2013	Sea turtle hatchling survival
Liz Barraco	MS Biology	2015	Invasive lizards in south Florida
Jessica Klaasen	Ph.D. Int. Biol.	2016	Wading bird foraging and diets
Sommer Kuhn	MS Biology	2017	Bottlenose Dolphin population shifts
Jason Bosley	Ph.D. Int. Biol.	2017	Bald eagle population models.
Daniel Hagood	MS Env. Sciences	2017	Invasive Plants, fire, and hogs
Chelsea Bennice	Ph.D. Int. Biol.	2019	Octopus niches
Betsy Evans	Ph.D. Int. Biol.	2020	Wading birds and invasive fish

David Essian	Ph.D. Int. Biol.	<i>expected 2021</i>	Wading bird foraging ecology
Chris Johnson	Ph.D. Int. Biol.	<i>expected 2021</i>	Seagrass ecology
Elizabeth Lago	MS Env. Sciences	<i>DNF</i>	Roseate Spoonbill nesting patterns

Undergraduate students previously/currently working or volunteering in my lab

PAST: Juan Augusto-Molero, Soonam Augusty, Stephanie Archbold, Amanda Berman, Justin Brown, Dara Cameron, Hannah Campbell, Alex Chong, Rafael Crespo, Jason Dale, Osvaldo Diaz, Jennifer Nelson, Awa Fall (Miami-Dade College), Joshua Filina, Michelle Finn, Janissa Fuentes (MDC), John Gamble II, Gino Garlaschi, John Konyha, Lisa Giscombe, Jorge Guerrero, Shirly Garcia, Melani Hafsadi, Amy LaGala, Jacques Nageon de Lastange, Corinne Munson, Natalie Nowicki, Elizaveta Pintel, Adam Pollak, Phennatda Polpornvittoon, Stephen Poskitt, Anthony Puccio, Daniela Robles, Lyndsey Rodriguez, Ashley Romnosky, Estevao Santos, Bethany Simpson, Andrew Tabaque, Kelsey Workerger.

(31 in underrepresented groups including 23 females and 19 minorities, 40 total)

TEACHING:

Lecture Courses

PCB 4043	Principles of Ecology	3 credits	taught 20x
BSC 4930	Freshwater Ecology	3 credits	taught 3x
BSC 4930L	Freshwater Ecology lab	1 credit	taught 3x
ZOO 2203/4096	Invertebrate Zoology	3 credits	taught 3x
ZOO 2203	Invertebrate Zoology lab	2 credits	taught 1x
PCB 6064 (grad.)	Advanced Ecology	3 credits	taught 17x
PCB 6936 (grad.)	Pop. and Comm. Ecology	3 credits	taught 1x
PCB 6456 (grad.)	Expt. Design and Biometry	4 credits	co-taught 1x

Graduate Seminar

PCB 6459 (grad.)	Ecol. Research Seminar	1 credit	taught 13x
------------------	------------------------	----------	------------

Guest Lectures at FAU

BSC 6390 (Boca)	Integrative Biology I	5 lectures
PCB 4043 (Boca)	Principles of Ecology	1 lecture

Teaching Experience prior to FAU

2004 (as post-doc)

Guest Lecturer and Discussion leader: "Age-structured population models" *Advanced Ecology* (graduate course) Florida International University, Miami, FL.

Guest Lecturer and Field Trip leader: "Crayfish and fish in northern lakes" Au Sable Institute of Environmental Studies, *Limnology* class, Mancelona, MI.

1997-2003 (as a PhD student)

Lecturer: co-instructor of *Population and Community Ecology*, a graduate-level course at Michigan State University (2002).

Teaching Assistant:

Introductory Biology Labs, Michigan State University 4x

Ecology Labs, Michigan State University 2x

- developed a stream ecology field exercise for the lab manual.

Marine Biology Discussion Sections, Michigan State University 1x

K-12 Building level scientist – NSF funded K-12 Partnership for Science Literacy (2003)

SERVICE ACTIVITIES:

University

- Member of Institutional Animal Care and Use Committee (2011-2014)
- Member of IACUC subcommittee; Wildlife-Use Protocol development (2013-2014)
- Internal Review of Faculty Promotion Package (2013)
- Member of search committee for University Attending Veterinarian (2012)
- Member of IACUC subcommittee; Fish-Use Protocol development (2008)
- Manager of Boat and Vehicle Maintenance & Operations and Recharge Center, FAU Davie Campus (2007-2013). This was an unofficial position.

College

- Committee Chair of Graduate Admissions for the Environmental Sciences Program (2009-current)
- Co-author of Environmental Sciences Program Review (2014)
- Committee Member of Graduate Admissions for the Environmental Sciences Program (2007)
- Poster judge for FAU CESCOS Research Day (2013, 2014)
- Poster judge at Environmental Science Retreat (2014, 2016, 2018)

Department:

- Member of Personnel Committee (2018-)
- Search Committee Member for Quantitative Ecologist faculty position (2020)
- Member of Integrative Biology PhD Admissions Committee (2015-present)
- Member of Assessment Committee (2017-2019)
- Chair of Integrative Biology Environmental Science Admissions Committee (2015, 2016)
- Search Committee Member for Behavioral Ecologist faculty position (2014)
- Library liaison for Biological Sciences/Environmental Science (2006-present)
- Scholarship Committee Member (2008)
- Search Committee Member for Ecological Modeler faculty position (2006)
- Commencement representative for Biology (2008, 2011, 2012, 2016).

Research and Academic Community:

Research Committees

- *Decomartmentalization Physical Model Science Team*, Member (2017-present; interagency committee studying flow and planning the adaptive management and monitoring of the Central Everglades Planning Project South)
- *Loxahatchee Impoundment Landscape Assessment Coordinating Committee*, Member (2007-2013, 2016-present); interagency research team coordinating and planning research at the LILA wetland research facility (SFWMD)
- *Snail Kite Coordinating Committee*, Member (2015-present; interagency committee, organized by USGS and the Audubon Society)

Regional Research and Management Review

- External Peer-Review Team, Member. 2020 Review of Technical and Scientific basis of the Central Everglades Planning Project (CEPP) Everglades Agricultural Area (EAA) A-2 Reservoir. For South Florida Water Management District. (50h, with compensation).
- External Review of Apple Snail monitoring in Lake Okeechobee for US Fish and Wildlife and US Army Corps of Engineers. 2016 (Vero Beach).

Scholarly reviews

- Manuscript Editor
Oecologia -present
Southeastern Naturalist (2013-2019)
- Manuscript Review - 59 Manuscript Reviews (2005-2019):
American Midland Naturalist, Archiv für Hydrobiologie, Aquatic Invasions, Biological Invasions, Canadian Journal of Fisheries and Aquatic Sciences, Conservation Biology, Diversity and Distributions, Ecography, Ecology, Ecological Research, Freshwater Biology, Freshwater Science, Hydrobiologia, International Journal of Zoology, Journal of Animal Ecology, Journal of Field Ornithology, Journal of the North American Benthological Society, Journal of Wildlife Management, Knowledge and Management of Aquatic Ecosystems, Landscape Ecology, Oecologia, Oikos, Restoration Ecology, River Research and Applications, Southeastern Naturalist, Transactions of the American Fisheries Society, Waterbirds, Wetlands
- *National Science Foundation*
Panel Review (2014)
Ad-hoc Full Proposal Review (2014)
- *External Reviewer* for Survey of effects of Non-indigenous fishes conducted by University of Environmental Change Initiative: University of Notre Dame (2012).
- *External Reviewer* for Restoration of Federal Forests in the Pacific NW: Strategies and Management Implications (2011) (for *The Wildlife Society*)
- *External Reviewer* book chapter for Biological invaders in inland waters: profiles, distribution, and threats (ed. F. Gherardi) Springer (2007)
- *External Reviewer*: Habitat Suitability Indices for the Southwest Florida habitat feasibility study (USGS, University of Florida)
- *Co-author*: Informational bulletin for the Joint Ecological Modeling lab (USGS) at the Greater Everglades Ecosystem Restoration conference 2008.

Promotion and Tenure

- *External Evaluator* for University of Louisville (P&T) 2020
- *External Evaluator* for The King's University (CAN) (P&T) 2018
- *External Evaluator* for University of North Dakota (P&T) 2018
- *External Evaluator* for Ball State University (P&T) 2017

Other/Community Outreach:

- Everglades Day tour guide (Loxahatchee National Wildlife Refuge) 2018, 2020
- Presentation/tour guide at the Loxahatchee Impoundment Landscape Assessment for USFWS employees, 2009.
- Authored Ecology questions for local Science Olympiad, 2009.
- Insect identification for Boca Raton Water Reclamation Facility, 2007.
- Science Fair Judge at Our Savior Lutheran School (7th and 8th grade science fair) 2007.
- Presentation: History and Biology of the Everglades Ecosystem. South Kendall Community Church, Miami, FL. Sept. 2005.
- Participant in the Augusta Creek Watershed Council Educational Poster Program, 2002.
- Teacher and curriculum builder for Michigan State University 4-H Exploration Days, Title: *Fast Food for Fish*, 2000.
- Field trip co-leader for Lake Association Workshop at W. K. Kellogg Biological Station, (organized by Drs. Hamilton and Tessier) 1998.
- Research mentor for the senior thesis project of M. Bellware (Kalamazoo College) "Colonial nesting strategies of bluegill sunfish" 2000.

OTHER:

- SCUBA certified (2001)
- US Coast Guard Auxiliary Boating Course (2004)

NON-REFEREED Publications:

- Dorn, N. J. 2020. Faunal responses to flood variation at the Loxahatchee Impoundment Landscape Assessment. Annual Report for SFWMD. 36 pp.
- Hansen, C., N. J. Dorn, C. Saunders, E. Tate-Bolt, S. Newman. 2020. DECOMP Physical Model update: Flow-mediated growth of an aquatic herbivore. In: 2020 South Florida Environmental Report. Chapter 6: Everglades Research and Evaluation. (Ed. F. Sklar).
- Dorn, N., D. Drumheller, M. I. Cook. 2020. Invasive apple snail locally excluding native Florida apple snails. In: 2020 South Florida Environmental Report. Chapter 6: Everglades Research and Evaluation. (Ed. F. Sklar).
- Dorn, N., T. Cocoves, M. I. Cook. 2019. White Ibis diets in the southern Everglades. In: 2019 South Florida Environmental Report. Chapter 6: Everglades Research and Evaluation (Ed. F. Sklar). pp. 33-38.
(https://apps.sfwmd.gov/sfwmd/SFER/2019_sfer_final/sfer_toc_v1.pdf)
- Dorn, N. J. and C. Hansen. 2019. DECOMP Physical Model: Biological Responses to Flow. Annual Report for SFWMD. 43 pp.
- Dorn, N. J. 2019. Faunal responses to flood variation at the Loxahatchee Impoundment Landscape Assessment. Annual Report for SFWMD. 31 pp.

- Dorn, N. J. and C. Hansen. 2018. DECOMP Physical Model: Biological Responses to Flow. Annual Report for SFWMD. 31 pp.
- Dorn, N. J. 2018. Diet Analysis of White Ibis Chicks in Everglades National Park. Final Report for DOI: Cooperative Ecosystems Studies Unit. Everglades National Park. 17 pp.
- Dorn, N. J. and E. Binkley. 2018. Wading bird foraging and prey concentration: effects of proximate deep water. Final Report for the South Florida Water Management District. 44 pp.
- Dorn, N. J. 2017. Analysis of White Ibis Chick Diets in Lake Okeechobee. Final report for SFWMD. 9 pp.
- Dorn, N. J. and C. Hansen. 2017. DECOMP Physical Model: Biological Responses to Flow. Report for SFWMD. 28 pp.
- Dorn, N. J. and E. Binkley. 2017. Wading bird foraging and prey concentration: effects of proximate deep water. Final Report for SFWMD. 38 pp.
- Dorn, N. J. 2017. Diet Analysis of White Ibis Chicks in Everglades National Park. Annual Report. 15pp.
- Saunders, C. S. and 15 contributing authors including N. J. Dorn. 2017. DECOMP physical model (DPM) science plan. South Florida Water Management District and DOI (USACOE and USGS). 59 pp.
- Dorn, N. J. 2013. Nutrient Cycling Review: Aquatic Fauna Summary and Considerations. Final unpublished Report for the South Florida Water Management District. 12pp (plus 30pp bibliography).
- Dorn, N. J. 2013. Design and Conduct an Experimental Examination of the “Predator Release” Hypothesis in the Wading Bird Super Colony Formation in the Florida Everglades. Final Report with Analyses for the South Florida Water Management District. 80pp.
- Dorn, N. J. 2012. Design and Conduct an Experimental Examination of the “Predator Release” Hypothesis in the Wading Bird Super Colony Formation in the Florida Everglades. Annual Report with Analyses for the South Florida Water Management District. 41pp.
- Dorn, N. J. 2011. Design and Conduct an Experimental Examination of the “Predator Release” Hypothesis in the Wading Bird Super Colony Formation in the Florida Everglades. Annual Report with Analyses for the South Florida Water Management District. 30pp.
- Bennett, R. E. Cline, M. Cook, N. Dorn & R. M. Kobza 2011. Wildlife Ecology in Chapter 6 of the South Florida Environmental Report (eds. Sklar, Dreschel & Stanek). Pp. 19-23.
- Cook, M., N. Dorn, R. Shuford & M. Kobza. 2010. *Wildlife Ecology* section in Chapter 6 of the South Florida Environmental Report (eds. Sklar, Dreschel & Warren). Pp. 15-22.
- Dorn, N. J. 2010. Assessing Aquatic Animal Community Responses to Hydrologic Variation in Sloughs: Final Report with Analyses. Final Report for the South Florida Water Management District Everglades Division. 12pp.
- Dorn, N. J. 2010. Final Report: Habitat Suitability Models for Everglades and Slough Crayfish. Final Report for the Joint Ecological Modeling Lab (U. Florida/USGS). 23pp.
- Dorn, N. J. and R. Boyle. 2010. Diet Analysis of White Ibis Chicks. Final Report for the South Florida Water Management District, Everglades Division. 28pp.
- Dorn, N. J. and C. van der Heiden. 2009. Crayfish Population Studies: Final Report with Analyses. Final Report for the South Florida Water Management District, Everglades Division. 24pp.
- Dorn, N.J. and J.C. Volin. 2009. Crayfish Population Dynamics: Hydrological Influences. Final Report for the South Florida Water Management District, RECOVER Division. 47pp.

- Dorn, N. J. 2009. Final Report: Habitat Suitability Models for Everglades and Slough Crayfish. Final Report for Joint Ecological Modeling Lab (U. Florida/USGS). 15pp.
- Dorn, N.J. and J.C. Volin. 2008. Crayfish Population Dynamics: Hydrological Influences. Annual Report for the South Florida Water Management District, RECOVER Division. 27pp.
- Dorn, N.J. and J.C. Volin. 2007. Crayfish Population Dynamics: Hydrological Influences. Annual Report for the South Florida Water Management District, RECOVER Division. 19pp.
- Dorn, N.J. 2007. Assessment of fish communities in waterways of the Big Cypress Seminole Indian Reservation. Final Report for the Seminole Tribe of Florida. 31pp.
- Dorn, N. J. and J. Baldwin. 2006. Fish Surveys in waterways of the Big Cypress Seminole Indian Reservations in 2006. Final Report for the Seminole Tribe of Florida. 67pp.

This page intentionally left blank

JANNA L FIERST

2328 Science and Engineering Complex

Department of Biological Sciences

The University of Alabama

Tuscaloosa, AL 35487-0344

jlfierst@ua.edu

phone +1 (205) 348-1830; fax +1 (205) 348-1786

EDUCATION

2010	The Florida State University <i>PhD, Biological Science, Section for Ecology and Evolution</i> Advisors: David Houle and Thomas F. Hansen	Tallahassee, FL
2004	California State University, Northridge <i>MS, Biology</i> Advisor: Steven R. Dudgeon	Los Angeles, CA
1998	Pomona College <i>BA, Biology</i>	Claremont, CA

PROFESSIONAL POSITIONS

2015-Present	The University of Alabama <i>Assistant Professor</i> Department of Biological Sciences	Tuscaloosa, AL
2010-2014	The University of Oregon <i>Postdoctoral Researcher</i> , Institute for Ecology and Evolution Mentor: Patrick C. Phillips	Eugene, OR
2008-2009	The University of Oslo <i>Leiv Eiriksson Mobility Fellow</i> Sponsor: Thomas F. Hansen	Oslo, Norway

GRANTS AND AWARDS

Current Funding

National Science Foundation \$1,135,944 8/2020 - 8/2025
 CAREER: Reproductive mode and horizontal gene transfer in nematode worms: Training early career researchers in computational evolutionary biology
Fierst PI

National Science Foundation \$2,589,602 5/2020 - 10/2023
Understanding the Rules of Life: Epigenetics 2: Collaborative research: Bumble bee cold tolerance across elevations- From epigenotype to phenotype across space, time, and levels of biological organization
Fierst co-PI (cost share \$701,211)

Proposals In Review

National Institutes of Health \$1,835,000 10/2021 - 9/2026
National Institute of General Medical Sciences
R35 MIRA: Sex and self-fertility: Drivers of genome evolution
Fierst PI

National Institutes of Health \$1,801,206 9/2021-9/2026
National Institute on Aging
R01A1: Mechanisms underlying aged host-virus interactions
Fierst co-I (cost share \$270,181)

Completed Funding

National Institutes of Health \$1,251,600 10/2015 - 5/2019
National Institute of General Medical Sciences
R01: System genetics of natural variation in stress response pathways
Fierst subcontract (cost share \$145,625)

University of Alabama \$82,446 6/2015 - 2/2017
Research Grants Committee
Genome-scale model guided metabolic engineering of *C. tyrobutyricum*
Fierst co-PI (cost share \$15,666)

National Science Foundation \$123,000 10/2010 - 9/2012
Postdoctoral Fellowship in Biological Informatics
Fierst PI

Norwegian Research Council NOK300,000 6/2008 - 6/2009
Leiv Eiriksson Mobility Fellowship
Fierst PI

PUBLICATIONS

* An asterisk indicates the publication was co-authored with one or more of my graduate and/or undergraduate researchers

Manuscripts in Review and Revision

* Bubrig, L.T. and **J.L. Fierst**. Review of the dauer hypothesis: What non-parasitic species can tell us about the evolution of parasitism. *In review*, Journal of Parasitology.

Sheffield, L., N. Sciambra, A. Evans, E. Hagedorn, M. Delfeld, C. Goltz, **J.L. Fierst** and S. Chtarbanova. Age-dependent impairment of disease tolerance is associated with a robust transcriptional response following RNA virus infection in *Drosophila*. *In review*, G3.

* Sutton, J.M., J.D. Millwood, A.C. McCormack and **J.L. Fierst**. Optimizing experimental design for genome sequencing and assembly with Oxford Nanopore Technologies. *In review*, GigaByte.

* Sutton, J.M., T.J. Bushman, S.M. Baesman, E. Klein, Y. Shrestha, R. Andrews, **J.L. Fierst**, M. Kolton, S. Gushgari-Doyle, R.S. Oremland, J. Freeman, D.M. Akob. Acetylenotrophic and diazotrophic *Bradyrhizobium* sp. strain I71 from TCE-contaminated soils. *In review*, Applied and Environmental Microbiology.

* Adams, P.E., A.L. Crist, E.P. Young, J.H. Willis, P.C. Phillips and **J.L. Fierst**. Slow recovery from inbreeding depression generated by the complex genetic architecture of segregating deleterious mutations. *In revision*, Molecular Biology and Evolution.

Published

2021* Baesman, S.M., J.M. Sutton, **J.L. Fierst**, D.M. Akob, and R.S. Oremland. *Syntrophalea acetylenovorans*, strain SFB93, sp. nov., a diazotrophic, acetylene-fermenting anaerobe isolated from San Francisco Bay intertidal sediments. *In press*, International Journal of Systematic and Evolutionary Microbiology.

2021 O'Connor, C.H., K.L. Sikkink, T.C. Nelson, **J.L. Fierst**, W.A. Cresko, and P.C. Phillips. Complex pleiotropic genetic architecture of evolved heat stress and oxidative stress resistance in the nematode *Caenorhabditis remanei*. *In press*, G3.

2020* Bubrig, L.T., J.M. Sutton, and **J.L. Fierst**. *Caenorhabditis elegans* dauer recovery varies with worm-bacteria interactions. Ecology and Evolution 10 (18): 9886-9895.

2020* Heraghty, S.D., J.M. Sutton, M.L. Pimsler, **J.L. Fierst**, J.P. Strange, and J.D. Lozier. *De novo* genome assemblies for three North American bumble bee species: *Bombus bifarius*, *Bombus vancouverensis*, and *Bombus vosnesenskii*. G3:

Genes, Genomes, Genetics 10 (8), 2585-2592.

- 2020* Adams, P.E., L.T. Bubrig and **J.L. Fierst**. Genome evolution: On the road to parasitism. *Current Biology* 30, R272-274.
- 2020* Anderson, A.G., L.T. Bubrig and **J.L. Fierst**. Environmental stress maintains trioecy in nematode worms. *Evolution* 74-3: 518-527.
- 2018* Akob, D.M., J.M. Sutton, **J.L. Fierst**, K.B. Haase, G.W. Luther III, and R.S. Oremland. Acetylenotrophy: a hidden but ubiquitous microbial metabolism? *FEMS Microbiology Ecology* 94(8): fty103.
- 2017 **Fierst, J.L.**, and D.A. Murdock. Decontaminating eukaryotic genome assemblies with machine learning. *BMC Bioinformatics* 18(1): 533.
- 2017* Akob, D.M., S.M. Baesman, J.M. Sutton, **J.L. Fierst**, A.C. Mumford, Y. Shrestha, A.T. Poret-Peterson, S. Bennett, D.S. Dunlap, K.B. Haase, and R.S. Oremland. Detection of diazotrophy in the acetylene-fermenting anaerobe, *Pelobacter* strain SFB93. *Applied and Environmental Microbiology*. 83: e01198 - 17.
- 2017 **Fierst, J.L.**, D.A. Murdock, C. Thanthiriwatte, J.H. Willis, and P.C. Phillips. Metagenome-assembled draft genome sequence of a novel microbial *Stenotrophomonas maltophilia* strain isolated from *Caenorhabditis remanei* tissue. *Genome Announcements* 5(7): e01646-16.
- 2017* Sutton, J.M., S.M. Baesman, **J.L. Fierst**, A.T. Poret-Peterson, R.S. Oremland, D.S. Dunlap, D.M. Akob. Complete genome sequences of two acetylene-fermenting *Pelobacter acetylenicus* strains. *Genome Announcements* 5(6): e01572-16.
- 2017* Sutton, J.M., S.M. Baesman, **J.L. Fierst**, A.T. Poret-Peterson, R.S. Oremland, D.S. Dunlap, and D.M. Akob. Complete genome sequence of the acetylene-fermenting *Pelobacter* strain SFB93.” *Genome Announcements* 5(6): e01573-16.
- 2016 Ma, C., J. Ou, N. Xu, **J.L. Fierst**, S-T Yang and X. Liu. Rebalancing redox to improve biobutanol production by *Clostridium tyrobutyricum*. *Bioengineering* 3(1): 2.
- 2015 **Fierst, J.L.**, J.H. Willis, C.G. Thomas, W. Wang, R.M. Reynolds, T.E. Ahearne, A.D. Cutter, and P.C. Phillips. Reproductive mode and the evolution of genome size and structure in *Caenorhabditis* nematodes. *PLoS*

Genetics 11(6): e1005323.

- 2015 **Fierst, J.L.** Using linkage maps to correct and scaffold *de novo* genome assemblies: methods, challenges and computational tools. *Frontiers in Genetics* 6: 220.
- 2015 **Fierst, J.L.** and P.C. Phillips. Modeling the evolution of genetic systems: the gene network family tree. *Journal of Experimental Zoology (Molecular and Developmental Evolution)* 324B: 1-12.
- 2013 **Fierst, J.L.** Female mating preferences determine system-level evolution in a gene network model. *Genetica* 141: 157-170.
- 2013 Houle, D. and **J.L. Fierst**. Properties of spontaneous mutational variance and covariance for wing size and shape in *Drosophila melanogaster*. *Evolution* 67: 1116-1130.
- 2012 **Fierst, J.L.** and P.C. Phillips. Variance in epistasis links gene regulation and evolutionary rate in the yeast genetic interaction network. *Genome Biology and Evolution* 4: 1080-1087.
- 2011 **Fierst, J.L.** A history of phenotypic plasticity accelerates evolution to a new environment. *Journal of Evolutionary Biology* 24: 1992-2001.
- 2011 **Fierst, J.L.** Sexual dimorphism increases evolvability in a genetic regulatory network. *Evolutionary Biology* 38: 52-67.
- 2010 **Fierst, J.L.**, and T.F. Hansen. Genetic architecture and post-zygotic reproductive isolation: Bateson-Dobzhansky-Muller incompatibilities in a polygenic model. *Evolution* 64: 675-693.
- 2010 **Fierst, J.L.**, J.E. Kubler and S.R. Dudgeon. Spatial distribution and reproductive phenology of sexual and asexual *Mastocarpus papillatus* (Rhodophyta). *Phycologia* 49: 274-282.
- 2009 Hollis, B., **J.L. Fierst**, and D. Houle. Sexual selection accelerates the elimination of a deleterious mutant in *Drosophila melanogaster*. *Evolution* 63: 324-333.
- 2005 **Fierst, J.**, C. Terhorst, J.E. Kubler and S.R. Dudgeon. Fertilization success can drive patterns of phases dominance in complex life histories. *Journal of Phycology* 41: 238-249.

TEACHING AND MENTORING

Teaching

2015-present **The University of Alabama** **Tuscaloosa, AL**

Instructor of Record

As an Assistant Professor I developed and taught two new cross-listed courses:

Introduction to Bioinformatics

Undergraduate section BSC 473 (enrollment 15-30 students per term)

Graduate section BSC 573 (enrollment 5-15 students per term)

From the University of Alabama course catalog: “Bioinformatics BSC 473/573 covers the tools and approaches necessary to perform computational analysis of large datasets. We will focus on analyzing high-throughput sequencing data although the tools we will learn are applicable to a wide range of modern biological questions. Specific topics include operating in a UNIX/bash shell environment, scripting, genome assembly, alignment, and algorithms. Writing proficiency is required for a passing grade in this course. A student who does not write with the skill normally required of an upper-division student will not earn a passing grade, no matter how well the student performs in other areas of the course.”

Introduction to Bioinformatics requires one formative and one summative writing assignment and satisfies the writing or ‘W’ requirement for Biological Sciences majors at the University of Alabama.

Computational Biology Lab

Undergraduate section BSC 426 (enrollment 15-30 students per term)

Graduate section BSC 526 (enrollment 5-15 students per term)

From the University of Alabama course catalog: “Computational Biology Lab introduces the programming skills, statistical methods and conceptual foundations necessary to pursue computational analysis and modeling of biological systems. This course is designed for biology students, and it is not expected that students will have prior with experience with computing or programming.”

Computational Biology Lab is a hands-on class involving a combination of lectures and laboratory activities. The course satisfies the Laboratory or ‘L’ requirement for Biological Sciences majors at the University of Alabama.

2003-2010 **The Florida State University** **Tallahassee, FL**

Graduate Teaching Assistant

Study sections, lectures and lab sessions for Introductory Biology, Animal Diversity and Evolution

2000-2004 **California State University, Northridge** **Los Angeles, CA**

Graduate Teaching Assistant

Lectures and lab sessions for Introductory Biology, Anatomy and Physiology,
Marine Ecology and Biometry

1998-2000 **Immaculate Heart High School** **Los Angeles, CA**
Science Teacher
9th grade Introductory Science and 10th grade Biology and Honors Biology

Mentoring

2015-present **The University of Alabama**

Current

Dissertation chair:

Paula Adams
Alekhya Kandoor
Joshua Millwood
John Sutton

Biological Sciences undergraduate researchers:

Chris Yousseff

Computer Science undergraduate researchers:

Tenisha Ciby
Case McCormack

Dissertation committee:

Timothy Bushman
Mustafa Divyapicigil
Jennifer Fortunato
Sam Heraghty
Jacob Loeffelholz
Sogol Momeni
Brucker Nourse
Caleb Turberville
Kelton Verble
Karolina Willicott

Thesis committee:

Haylee Quertermous
Amber Thibeaux

Past

Thesis chair:

Louis Bubrig

Biological Sciences undergraduate researchers:

Ashlyn Anderson
Louis Bubrig
Kaylee Covan
Sai Dwarampudi
Danielle Kem
Obie Moultrie
Robert Reis

Nilsamarie Rodriguez
John Sutton
Kloe Timbers
Mackenzie Valentin

Computer Science undergraduate researchers:

Alan Hincey
A. Houston Wingo

Dissertation committee:

Andrei Bombin
Jason Jackson
Younji Kim
Chao Ma
Jianfa Ou
Vishal Oza
Rebecca Varney

Thesis committee:

Ryan Lavoie
Anna Reding
Grace Scarsella

2012-2013 **The University of Oregon**

Computer and Information Sciences research projects

Undergraduate students:

Zeyu Feng
Katerina Ko
Jiazhang Liu
Erick Rogers
Alexandra Weston
Ran Zhang

Graduate students:

Azad Abbasi
Dan Everson
Mahshid Yar Mohammadi
Yunfeng Zhang

The Institute of Ecology and Evolution graduate student rotation projects

Allison Fuiten
Andrew Nishida
Christine O'Connor
Alex Weimer

GRADUATE STUDENT INVITED PRESENTATIONS

2017 Genome evolution in *Caenorhabditis* nematode worms. **Graduate student invited speaker**, Population Biology, Ecology and Evolution Graduate Group.

Emory University, Atlanta, GA.

- 2016 Decontaminating *de novo* genome assemblies. **Graduate student invited speaker**, Ecology, Evolution and Marine Biology Graduate Group, University of California, Santa Barbara, CA.

INVITED PRESENTATIONS

- 2020 Best practices for decontaminating *de novo* assembled genome sequences. Research Coordination Network: Evolving Seas Genomic Workshop, Catalina, CA. *Canceled due to Covid-19*.
- 2020 Holocentric chromosomes and the locus of evolvability. Center for Advanced Studies, the University of Oslo. *Canceled due to Covid-19*.
- 2020 Complex systems and genome evolution. Syracuse University, Department of Biology.
- 2020 Complex systems and genome evolution. Tufts University, Department of Biology.
- 2019 A systems approach to studying genome evolution. The University of Alabama at Birmingham, Department of Biomedical Engineering.
- 2018 Sexual conflict in genome evolution. Mississippi State University, Starkville, MS.
- 2018 Sexual conflict in genome evolution. The University of Alabama at Birmingham, Department of Biological Sciences.
- 2018 Genome evolution across worms and microbes. The University of West Alabama, Livingston, AL.
- 2016 Chemical & Biological Engineering Departmental Seminar, The University of Alabama
- 2016 Department of Mathematics, Applied Math Seminar, The University of Alabama
- 2016 Form and function in biological networks. Network study interdisciplinary graduate education research and training, University of California, Santa Barbara, CA.
- 2014 Computational approaches to genetic evolution. The Florida State University,

Tallahassee, FL.

- 2014 Sex and recombination in genomic evolution. San Francisco State University, San Francisco, CA.
- 2014 The influence of sex on genetic and genomic evolution. The University of Alabama, Tuscaloosa, AL.
- 2012 Evolutionary systems biology. The University of Colorado at Denver.
- 2011 Nucleosome occupancy mediates transcription, gene expression, and epistatic fitness effects. Workshop on Systems Biology, Luebeck, Germany.
- 2010 Studying evolutionary processes with models of gene regulatory networks. University of Pretoria, Pretoria, South Africa.
- 2010 Sexual selection determines robustness and evolvability in a computational model of a genetic regulatory network. Gothenburg University, Gothenburg, Sweden.

SELECTED CONFERENCE PRESENTATIONS

* An asterisk indicates the presentation was co-authored with one or more of my graduate and/or undergraduate researchers

- 2020* P.E. Adams and **J.L. Fierst**. Slow recovery from inbreeding in *Caenorhabditis remanei*. Society for Molecular Biology and Evolution Annual Meeting, Quebec City, CA. Selected for an oral presentation and a Young Investigators Award. *Canceled due to Covid-19*.
- 2020* T.J. Bushman, J.M. Sutton, **J.L. Fierst**, S.M. Baesman, R.S. Oremland and D.M. Akob. Assessment of acetylenotrophy within the genus *Bradyrhizibium*. Virginia Branch of the American Society of Microbiologists Annual Meeting, Farmville, VA.
- 2020 N. Sciambra, L. Sheffield, A. Evans, M.J. Delfeld, **J.L. Fierst** and S. Chtarbanova. Potent transcriptional response of aged *Drosophila melanogaster* following infection with an RNA virus. The Allied Genetics Conference, Washington, DC (virtual due to COVID-19).
- 2020* J.M. Sutton, T.J. Bushman, S.M. Baesman, R.S. Oremland, **J.L. Fierst** and D.M. Akob. Southeastern Branch of the American Society of Microbiologists Annual Meeting, Huntsville, AL.

- 2019* P.E. Adams and **J.L. Fierst**. The genomic architecture of inbreeding and recovery in *Caenorhabditis remanei*. Society for the Study of Evolution Annual Meeting, Providence, Rhode Island.
- 2019* P.E. Adams, Anna L. Crist, Ellen P. Young, John H. Willis, Patrick C. Phillips and **J.L. Fierst**. Slow recovery from inbreeding depression generated by the complex genetic architecture of segregating deleterious mutations. Southeastern Population Ecology and Evolutionary Genetics Meeting, Clemson, South Carolina.
- 2019* D.M. Akob, **J.L. Fierst** and J.M. Sutton. Expanding the distribution of acetylenotrophic microbes. Applied and Environmental Microbiology Gordon Research Conference, South Hadley, Massachusetts.
- 2019* L.T. Bubrig, A.G. Anderson and **J.L. Fierst**. Fluctuating stress and the maintenance of trioecy. Society for the Study of Evolution Annual Meeting, Providence, Rhode Island.
- 2019* L.T. Bubrig, A.G. Anderson and **J.L. Fierst**. Environmental stress maintains trioecy. Southeastern Population Ecology and Evolutionary Genetics Meeting, Clemson, South Carolina.
- 2019 S.H. Lye, **J.L. Fierst** and S. Chtarbanova. Inflammaging in *Drosophila*: Identifying novel factors involved in predisposition to age-dependent neurodegeneration. Oklahoma Geroscience Symposium, Norman, Oklahoma.
- 2019* J.D. Millwood, J.D. Lozier, C.M. Atkinson, M.J. Jenny and **J.L. Fierst**. Hybrid, de novo assembly method results in quality, preliminary freshwater mussel genome drafts. Southeastern Population Ecology and Evolutionary Genetics Meeting, Clemson, South Carolina.
- 2019* J.M. Sutton and **J.L. Fierst**. Improving the *Caenorhabditis remanei* PX356 genome with long-read sequence data. Oxford Nanopore Technologies London Calling, London, UK.
- 2018* P.E. Adams and **J.L. Fierst**. The genomic architecture of inbreeding in *Caenorhabditis remanei*. Society for the Study of Evolution Annual Meeting, Montpellier, France.
- 2018 **J.L. Fierst**. Horizontal transfers in gene co-expression networks. Society for the Study of Evolution Annual Meeting, Montpellier, France.

- 2017* P.E. Adams and **J.L. Fierst**. Computational genomics of inbreeding in *Caenorhabditis*. Society for the Study of Evolution Annual Meeting, Portland, Oregon.
- 2017* J.M. Sutton and **J.L. Fierst**. Discovery of two methods of acetylene transformation in a single organism. American Society for Microbiology Annual Meeting, New Orleans, Louisiana.
- 2016 **J.L. Fierst**. Decontaminating genome assemblies with machine learning. Society for the Study of Evolution Annual Meeting, Austin, Texas.
- 2016* P.E. Adams and **J.L. Fierst**. The genomic architecture of inbreeding in *Caenorhabditis remanei*. Society for the Study of Evolution Annual Meeting, Austin, Texas.
- 2016 D.A. Murdock and **J.L. Fierst**. Comparing computational methods for decontaminating genome assemblies. Society for the Study of Evolution Annual Meeting, Austin, Texas.
- 2016 C.H. O'Connor, **J.L. Fierst** and P.C. Phillips. Systems genetics of natural variation in stress in *Caenorhabditis* worms. Society for the Study of Evolution Annual Meeting, Austin, Texas.
- 2014 **J.L. Fierst**. The influence of mating system on genome evolution in *Caenorhabditis*. EVO-WIBO, Port Townsend, WA.
- 2014 **J.L. Fierst**. The influence of mating system on genome evolution in *Caenorhabditis*. Wellcome Trust, Evolution of *Caenorhabditis* worms and their relatives, Hinxton, UK.
- 2014 **J.L. Fierst**. The influence of mating system on genome evolution in *Caenorhabditis*. Society for the Study of Evolution Annual Meeting, Raleigh, North Carolina.
- 2012 **J.L. Fierst**. Evolution of genome structure in *Caenorhabditis remanei*. Cold Spring Harbor Laboratory, Evolution of *Caenorhabditis* worms and their relatives, New York.
- 2011 **J.L. Fierst**. A history of phenotypic plasticity accelerates adaptation. Western Society of Naturalists, Vancouver, WA.

- 2010 **J.L. Fierst.** Sexual dimorphism increases both robustness and evolvability. Society for Integrative and Comparative Biology, Seattle, USA.
- 2009 **J.L. Fierst.** Genetic architecture in reproductive isolation: Evolution of Bateson-Dobzhansky-Muller incompatibilities in a polygenic model. Society for the Study of Evolution Annual Meeting, Moscow, USA.
- 2008 **J.L. Fierst.** Genetic architecture in reproductive isolation. Society for Molecular Biology and Evolution Annual Meeting, Barcelona, Spain.
- 2006 **J.L. Fierst.** Good genes and sexual conflict. Society for the Study of Evolution Annual Meeting, Stonybrook, NY.
- 2004 **J.L. Fierst.** Multilinear epistatic interactions in the Bateson-Dobzhansky-Muller model. Society for the Study of Evolution Annual Meeting, Fort Collins, CO.

GUEST LECTURES AND OUTREACH

- 2019 Society for Engineers in Biomedicine, the University of Alabama
- 2019 Society of Women Engineers, the University of Alabama
- 2019 Honors Biology Enrichment Section (BSC 118), the University of Alabama
- 2018 Honors Biology Enrichment Section (BSC 118), the University of Alabama
- 2016 NSF Research Experiences for Undergraduates “Fluid Mechanics with Analysis Using Computations and Experiments,” The University of Alabama
- 2015 NSF Research Experiences for Undergraduates “Fluid Mechanics with Analysis Using Computations and Experiments” Guest speaker, The University of Alabama

SERVICE

- 2021 National Science Foundation Division of Environmental Biology panel reviewer
- 2020 National Institute for Neurological Disorder and Stroke Individual Fellowships reviewer
- 2020 NIH Early Career Reviewer for the Genomics, Computational Biology and

Technology (GCAT) study section

2020 - present	Faculty advisor, UA Graduate Women in Science
2019 - present	UA Cyberinstitute member
2019 - present	Research Software Engineer Search Committee, the University of Alabama
2018 - present	Graduate Admissions and Recruiting Committee, Department of Biological Sciences, the University of Alabama
2017 - present	College of Arts & Sciences High Performance Computing Advisory Committee, the University of Alabama
2016 - present	3 Minute Thesis (3MT) Biological Sciences Judge
2014 - present	Technology Research Advisory Committee, the University of Alabama
2016 - 2018	W.D. Hamilton Award for Outstanding Graduate Student Presentation Selection Committee, Society for the Study of Evolution
2015 - 2018	Facilities Committee, Department of Biological Sciences, the University of Alabama
2015 - 2018	Alabama's Lectures on Life's Evolution (ALLELE) Organizing Committee, the University of Alabama
2015	Plant Systematics Faculty Search Committee, the University of Alabama
2013	Organizing Committee, University of Oregon Postdoctoral Association
2012-2013	Constitution and Bylaws Committee, University of Oregon Faculty Union
2006-2008	Graduate representative, Integrating Genotype and Phenotype faculty search committee, Florida State University
2004-2005	President, Ecology and Evolution Discussion Group, Florida State University
2002-2003	President, Biology Graduate Student Association, CSU Northridge

Articles reviewed for:

Bioinformatics

Briefings in Bioinformatics
BMC Bioinformatics
BMC Evolutionary Biology
Current Biology
Ecology
eLife
Evolution
Evolution Letters
G3: Genes, Genomes and Genetics
Genetics
Genome Research
J. of Evolutionary Biology
Microbial Genomics
Molecular Biology and Evolution
PLoS Genetics
Proceedings of the Royal Society, Series B
Science Advances

Ad hoc grant reviewer for:

National Science Foundation (US)
Medical Research Council (UK)
Agence Nationale de la Recherche (FR)
CONACYT (MX)
Graduate Women in Science National Fellowship Program (US)

SPECIAL PROGRAMS

2011	Pacific-American Studies Institute <i>Scientific Computing: The Challenge of Massive Parallelism in the Americas</i>	Valparaiso, Chile
2006	Santa Fe Institute <i>Complex Systems Summer School</i>	Beijing, China
1997	Semester Abroad in Zimbabwe <i>Pitzer International Programs</i>	Harare, Zimbabwe

MEMBERSHIPS

International Society for Computational Biology
Society for Molecular Biology and Evolution
Society for the Study of Evolution

This page intentionally left blank

Knight Foundation School of

NAME: Mo Sha DEPARTMENT: Computing and Information Sciences

FLORIDA INTERNATIONAL UNIVERSITY

CURRICULUM VITAE FOR TENURE AND PROMOTION

CERTIFICATION

(Must be signed by candidate)

I hereby certify that the information provided in this curriculum vitae is accurate and complete to the best of my knowledge. I understand that if I have knowingly provided false information or omitted relevant information, I may be subject to disciplinary action, including termination.

DocuSigned by:

Mo Sha

Signature of Candidate

5/20/2021

Date

This page intentionally left blank

Mo Sha

Department of Computer Science
Binghamton University – State University of New York
4400 Vestal Parkway East, EB Room Q12
Binghamton, NY 13902-6000

Email: gowustl@gmail.com (personal)
msha@binghamton.edu (work)
Phone: (314) 660-9966
<http://www.cs.binghamton.edu/~msha>

EMPLOYMENT

Assistant Professor

September 2015 - present

Department of Computer Science
Thomas J. Watson College of Engineering and Applied Science
Binghamton University – State University of New York

Assistant Professor

March 2015 - August 2015

Division of Computing, Mathematics and Technology
College of Arts and Sciences
Governors State University

Postdoctoral Researcher

August 2014 - February 2015

Residential Buildings Research Group
National Renewable Energy Laboratory

EDUCATION

Ph.D., M.S., Computer Science
Washington University in St. Louis

August 2009 - July 2014

M.Phil., Computer Science
City University of Hong Kong

October 2007 - August 2009

B.Eng., Computer Science
Beihang University

September 2003 - July 2007

RESEARCH INTERESTS

Wireless Networking, Internet of Things, Applied Machine Learning, Network Security, and Cyber-Physical Systems

PROFESSIONAL MEMBERSHIPS

Senior Member of IEEE, Senior and Life Member of ACM, and Member of Sigma Xi.

RESEARCH GRANTS

Title of project: CAREER: Advancing Network Configuration and Runtime Adaptation Methods for Industrial Wireless Sensor-Actuator Networks. Program: NSF Faculty Early Career Development Program (CAREER); Amount: \$500,000, single PI; Project duration: 03/15/2021 – 02/28/2026.

Title of project: CRII: NeTS: Self-Adaptation in Industrial Wireless Sensor-Actuator Networks; Award number: 1657275; Program: NSF Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII); Amount: \$175,000, single PI; Project duration: 05/01/2017 – 04/30/2020.

Title of project: SmartPark: An Intelligent On-campus Parking Advisor in Smart Devices; Program:

Binghamton University Transportation and Parking Services; Amount: \$5,116, Co-PI; Project duration: 08/01/2017 – 07/31/2018.

AWARDS

NSF CAREER Award	2021
NSF CRII Award	2017
Educator of the Year Award at Binghamton University	2017–2018
Career Champion at Binghamton University	2018
Best Paper Award Nominee at IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)	2019
Distinguished Member of the 2020 INFOCOM Technical Program Committee	2020
Distinguished Member of the 2021 INFOCOM Technical Program Committee	2021

TEACHING EXPERIENCE

Teaching at Binghamton University:

Internet of Things	Spring 2021, Fall 2020, Spring 2020, Fall 2019, Fall 2018
Wireless Sensor Networks	Fall 2019, Spring 2018, Spring 2017, Spring 2016
Programming II for Engineers	Spring 2021, Spring 2019
Programming System and Tools	Fall 2017, Fall 2016, Fall 2015

Teaching at Governors State University:

Introduction to Wireless Sensor Networks Applications	Spring 2015
Computer Programming: Java	Spring 2015, Summer 2015

Summer School:

Introduction to Programming	Summer 2020, Summer 2019
Computing and Society in History	Summer 2020
Information System	Summer 2019
Wireless Sensor Networks	Summer 2017

GRADUATE STUDENT SUPERVISION

I currently supervise three PhD students: Junyang Shi, Di Mu, and Xia Cheng. Junyang Shi has published five conference papers (NSDI'21, INFOCOM'19, ICNP'19, ICII'19, and ICDCS'18) and two journal papers (IEEE/ACM Transactions on Networking and ACM Transactions on Internet Technology) as the first author, and received the Graduate Student Excellence Award in Research at Binghamton University in 2021. Di Mu has published three conferences papers (ICNP'20, DCOSS'19, and IWQoS'17) and two journal papers (ACM Transactions on Sensor Networks and Ad Hoc Networks) as the first author. Xia Cheng has published two conferences papers (INFOCOM'21 and IoTDI'19) and one journal paper (ACM Transactions on Internet Technology) as the first author. Junyang Shi and Di Mu are expected to graduate in summer 2021.

I have graduated eight Master's students: Xingjian Chen (MS, 2019), Yitian Chen (MS, 2019), Vinen Vivian Furtado (MS, 2019), Fang Li (MS, 2018), Stephen Molaro (MS, 2018), Lu Lu (MS, 2017), Yunpeng Ge (MS, 2017), Bin Wang (MS, 2017).

PUBLICATIONS

*Underlined authors are my students at Binghamton University
Citations: 1714 and h-index: 22 at Google Scholar on 4/15/2021

Conference Publications:

1. Xia Cheng, Junyang Shi, Mo Sha, and Linke Guo, *Launching Smart Selective Jamming Attacks in WirelessHART Networks*, IEEE International Conference on Computer Communications (INFOCOM), May 2021, acceptance ratio: $252/1266 = 19.9\%$.
2. Junyang Shi, Mo Sha, and Xi Peng, *Adapting Wireless Mesh Network Configuration from Simulation to Reality via Deep Learning based Domain Adaptation*, USENIX Symposium on Networked Systems Design and Implementation (NSDI), April 2021, acceptance ratio (fall deadline): $40/255 = 15.6\%$.
3. Di Mu, Yitian Chen, Junyang Shi, and Mo Sha, *Runtime Control of LoRa Spreading Factor for Campus Shuttle Monitoring*, IEEE International Conference on Network Protocols (ICNP), October 2020, acceptance ratio: $30/180 = 16.7\%$.
4. Junyang Shi, Xingjian Chen, and Mo Sha, *Enabling Direct Messaging from LoRa to ZigBee in the 2.4 GHz Band for Industrial Wireless Networks*, IEEE International Conference on Industrial Internet (ICII), November 2019, acceptance ratio: $23/138 = 16.7\%$.
5. Junyang Shi, Di Mu, and Mo Sha, *LoRaBee: Cross-Technology Communication from LoRa to ZigBee via Payload Encoding*, IEEE International Conference on Network Protocols (ICNP), October 2019, acceptance ratio: $30/210 = 14.2\%$.
6. Di Mu, Mo Sha, Kyoung-Don Kang, and Hyungdae Yi, *Energy-Efficient Radio Selection and Data Partitioning for Real-Time Data Transfer*, IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), May 2019, acceptance ratio: $20/79 = 25.3\%$ (Best Paper Award Nominee).
7. Junyang Shi and Mo Sha, *Parameter Self-Configuration and Self-Adaptation in Industrial Wireless Sensor-Actuator Networks*, IEEE International Conference on Computer Communications (INFOCOM), April 2019, acceptance ratio: $288/1464 = 19.7\%$.
8. Xiaonan Zhang, Pei Huang, Linke Guo, and Mo Sha, *Incentivizing Relay Participation for Securing IoT Communication*, IEEE International Conference on Computer Communications (INFOCOM), April 2019, acceptance ratio: $288/1464 = 19.7\%$.
9. Xia Cheng, Junyang Shi, and Mo Sha, *Cracking the Channel Hopping Sequences in IEEE 802.15.4e-Based Industrial TSCH Networks*, ACM/IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), April 2019, acceptance ratio: $20/71 = 28.1\%$.
10. Zhicheng Yang, Parth H Pathak, Mo Sha, Tingting Zhu, Junai Gan, Pengfei Hu, and Prasant Mohapatra, *On The Feasibility of Estimating Soluble Sugar Content using Millimeter-wave*, ACM/IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), April 2019, acceptance ratio: $20/71 = 28.1\%$.
11. Zhicheng Yang, Parth H. Pathak, Jianli Pan, Mo Sha, and Prasant Mohapatra, *Blockage-aware Deployment of 60 GHz WLANs*, IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), acceptance ratio: $42/145 = 28.9\%$.
12. Junyang Shi, Mo Sha, and Zhicheng Yang, *DiGS: Distributed Graph Routing and Scheduling for Industrial Wireless Sensor-Actuator Networks*, IEEE International Conference on Distributed Computing Systems (ICDCS), acceptance ratio: $78/378 = 20.6\%$.
13. Chengjie Wu, Dolvara Gunatilaka, Mo Sha, and Chenyang Lu, *Real-Time Wireless Routing for Industrial Internet of Things*, ACM/IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), April 2018, acceptance ratio: $(21+4)/89 = 28.0\%$.
14. Di Mu, Yunpeng Ge, Mo Sha, Steve Paul, and Souma Chowdhury, *Adaptive Radio and Transmission Selection for Internet of Things*, IEEE/ACM International Symposium on Quality of Service (IWQoS), June 2017, acceptance ratio: $29/146 = 19.9\%$.
15. Dolvara Gunatilaka, Mo Sha, and Chenyang Lu, *Impacts of Channel Selection on Industrial Wireless Sensor-Actuator Networks*, IEEE International Conference on Computer Communications (INFOCOM), May 2017, acceptance ratio: $34/151 = 20.9\%$.

16. Chengjie Wu, Dolvara Gunatilaka, Abusayeed Saifullah, Mo Sha, Paras Babu Tiwari, Chenyang Lu, Yixin Chen, *Maximizing Network Lifetime of WirelessHART Networks under Graph Routing*, IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI), April 2016, acceptance ratio: $11/53 = 20.8\%$.
17. Abusayeed Saifullah, Dolvara Gunatilaka, Paras Tiwari, Mo Sha, Chenyang Lu, Bo Li, Chengjie Wu, and Yixin Chen, *Schedulability Analysis under Graph Routing in WirelessHART Networks*, IEEE Real-Time Systems Symposium (RTSS), December 2015, acceptance ratio: $34/151 = 22.5\%$.
18. Mo Sha, Dolvara Gunatilaka, Chengjie Wu, and Chenyang Lu, *Implementation and Experimentation of Industrial Wireless Sensor-Actuator Network Protocols*, European Conference on Wireless Sensor Networks (EWSN), February 2015, acceptance ratio: $23/85 = 27.0\%$.
19. Yong Fu, Mo Sha, Chengjie Wu, Andrew Kutta, Chenyang Lu, Humberto Gonzalez, Anna Leavey, Weining Wang, Bill Drake, Yixin Chen, and Pratim Biswas, *Thermal Modeling for a HVAC Controlled Real-life Auditorium*, International Conference on Distributed Computing Systems (ICDCS), June 2014, acceptance ratio: $66/507 = 13.0\%$.
20. Chengjie Wu, Mo Sha, Dolvara Gunatilaka, Abusayeed Saifullah, Chenyang Lu, and Yixin Chen, *Analysis of EDF Scheduling for Wireless Sensor-Actuator Networks*, ACM/IEEE International Symposium on Quality of Service (IWQoS), May 2014, acceptance ratio: $24/101 = 23.8\%$.
21. Mo Sha, Rahav Dor, Gregory Hackmann, Chenyang Lu, Tae-Suk Kim, and Taerim Park, *Self-Adapting MAC Layer for Wireless Sensor Networks*, IEEE Real-Time Systems Symposium (RTSS), December 2013, acceptance ratio: $36/160 = 22.5\%$.
22. Mo Sha, Gregory Hackmann, and Chenyang Lu, *Energy-Efficient Low Power Listening for Wireless Sensor Networks in Noisy Environments*, ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), April 2013, acceptance ratio: $24/115 = 20.9\%$.
23. Tae-Suk Kim, Taerim Park, Mo Sha, and Chenyang Lu, *Toward MAC Protocol Service over the Air*, IEEE Global Communications Conference (GLOBECOM), December 2012.
24. Yong Fu, Mo Sha, Gregory Hackmann, and Chenyang Lu, *Practical Control of Transmission Power for Wireless Sensor Networks*, IEEE International Conference on Network Protocols (ICNP), October 2012, acceptance ratio: $30/131 = 22.9\%$.
25. Mo Sha, Gregory Hackmann, and Chenyang Lu, *Multi-Channel Reliability and Spectrum Usage in Real Homes: Empirical Studies for Home-Area Sensor Networks*, ACM/IEEE International Symposium on Quality of Service (IWQoS), June 2011, acceptance ratio: $23/80 = 28.8\%$.
26. Mo Sha, Gregory Hackmann, and Chenyang Lu, *ARCH: Practical Channel Hopping for Reliable Home-Area Sensor Networks*, IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), April 2011, acceptance ratio: $29/139 = 20.9\%$.
27. Shucheng Liu, Guoliang Xing, Hongwei Zhang, Jianping Wang, Jun Huang, Mo Sha, and Liusheng Huang, *Passive Interference Measurement in Wireless Sensor Networks*, IEEE International Conference on Network Protocols (ICNP), October 2010, acceptance ratio: $31/170 = 18.2\%$.
28. Shucheng Liu, Mo Sha, and Liusheng Huang, *ORAS: Opportunistic Routing with Asynchronous Sleep*, International Conference on Future Computer and Communication (ICFCC), May 2010.
29. Haiyan Cai, Xiaohua Jia, and Mo Sha, *Critical Sensor Density for Partial Connectivity in Large Area Wireless Sensor Networks*, IEEE Conference on Computer Communications (INFOCOM), March 2010, acceptance ratio: $276+106/1575 = 24.2\%$.
30. Guoliang Xing, Mo Sha, Jun Huang, Gang Zhou, Xiaorui Wang, and Shucheng Liu, *Multi-channel Interference Measurement and Modeling in Low-Power Wireless Networks*, IEEE Real-Time Systems Symposium (RTSS), December 2009, acceptance ratio: $44/197 = 22.3\%$.
31. Mo Sha, Guoliang Xing, Gang Zhou, Shucheng Liu, and Xiaorui Wang, *C-MAC: Model-driven Concurrent Medium Access Control for Wireless Sensor Networks*, IEEE Conference on Computer Communications (INFOCOM), April 2009, acceptance ratio: $282/1435 = 19.7\%$.

32. Guoliang Xing, Weijia Jia, Yufei Du, Posco Tso, Mo Sha, and Xue Liu, *Toward Ubiquitous Video-based Cyber-Physical Systems*, IEEE International Conference on Systems, Man, and Cybernetics (SMC) workshop on Engineering Cyber-Physical Ecosystems, October 2008.
33. Shujuan Liu, Yuebin Bai, Mo Sha, Qingyuan Deng, and Depei Qian, *CLEEP: A Novel Cross-Layer Energy-Efficient Protocol for Wireless Sensor Networks*, IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM'08), October 2008.
34. Xing Yang, Xiang Li, Yipeng Ji, and Mo Sha, *CROWNbench: A Grid Performance Testing System Using Customizable Synthetic Workload*, Asia Pacific Web Conference (APWeb), April 2008.
35. Mo Sha, Ming Chen, Yuebin Bai, Boliang Chen, and Xiaocong Wang, *A Prototype for Active Service System*, Japan-China Joint Workshop on Frontier of Computer Science and Technology (FCST), November 2007.

Journal Publications:

1. Di Mu, Mo Sha, Kyoung-Don Kang, and Hyungdae Yi, *Radio Selection and Data Partitioning for Energy-Efficient Wireless Data Transfer in Real-Time IoT Applications*, Ad Hoc Networks, Special Issue on Algorithms, Systems and Applications for Distributed Sensing, Vol. 107, pp.1-11, October 2020.
2. Junyang Shi and Mo Sha, *Parameter Self-Adaptation for Industrial Wireless Sensor-Actuator Networks*, ACM Transactions on Internet Technology (TOIT), Special Issue on Evolution of IoT Networking Architectures, Vol. 20, Issue 3, pp.28:1-28:25, October 2020.
3. Xia Cheng, Junyang Shi, and Mo Sha, *Cracking Channel Hopping Sequences and Graph Routes in Industrial TSCH Networks*, ACM Transactions on Internet Technology (TOIT), Special Issue on Evolution of IoT Networking Architectures, Vol. 20, Issue 3, pp.23:1-23:28, October 2020.
4. Junyang Shi, Mo Sha, and Zhicheng Yang, *Distributed Graph Routing and Scheduling for Industrial Wireless Sensor-Actuator Networks*, IEEE/ACM Transactions on Networking (TON), Vol. 27, Issue 4, pp.1669-1682, August 2019.
5. Di Mu, Yunpeng Ge, Mo Sha, Steve Paul, Niranjana Ravichandra, and Souma Chowdhury, *Robust Optimal Selection of Radio Type and Transmission Power for Internet of Things*, ACM Transactions on Sensor Networks (TOSN), Vol. 15, Issue 4, pp.39:1-39:25, July 2019.
6. Kyoung-Don Kang, Liehuo Chen, Hyungdae Yi, Bin Wang, and Mo Sha, *Real-Time Information Derivation from Big Sensor Data via Edge Computing*, Big Data and Cognitive Computing, Special Issue on Cognitive Services Integrating with Big Data, Clouds and IoT, Vol. 1, Issue 5, pp. 1-24, October, 2017.
7. Mo Sha, Dolvara Gunatilaka, and Chenyang Lu, *Empirical Study and Enhancements of Industrial Wireless Sensor-Actuator Network Protocols*, IEEE Internet of Things Journal, Vol. 4, Issue 3, pp. 696-704, June 2017.
8. Chenyang Lu, Abusayeed Saifullah, Bo Li, Mo Sha, Humberto Gonzalez, Dolvara Gunatilaka, Chengjie Wu, Lanshun Nie, and Yixin Chen, *Real-Time Wireless Sensor-Actuator Networks for Industrial Cyber-Physical Systems*, Proceedings of the IEEE, Special Issue on Industrial Cyber Physical Systems, Vol. 104, Issue 5, pp. 1013-1024, May 2016.
9. Jianli Pan, Raj Jain, Subharthi Paul, Tam Vu, Abusayeed Saifulla, Mo Sha, *An Internet of Things Framework for Smart Energy in Buildings: Designs, Prototype, and Experiments*, IEEE Internet of Things Journal, Vol. 2, Issue 6, pp. 527-537, December 2015.
10. Anna Leavey, Yong Fu, Mo Sha, Chengjie Wu, Andrew Kutta, Chenyang Lu, Weining Wang, Bill Drake, Yixin Chen, and Pratim Biswas, *Air Quality Metrics and Wireless Technology to Maximize the Energy Efficiency of HVAC in a Working Auditorium*, Building and Environment, Vol. 85, pp. 287-297, February 2015.
11. Mo Sha, Gregory Hackmann, and Chenyang Lu, *Real-World Empirical Studies on Multi-Channel Reliability and Spectrum Usage for Home-Area Sensor Networks*, IEEE Transactions on Network and

- Service Management (TNSM), Special Issue on Quality-of-Service, Vol. 10, Issue 1, pp. 56-69, March 2013.
12. Haiyan Cai, Xiaohua Jia, and Mo Sha, *Critical Sensor Density for Partial Connectivity in Large Area Wireless Sensor Networks*, ACM Transactions on Sensor Networks (TOSN), Vol. 7, Issue 4, pp. 35:1-35:23, February 2011.
 13. Guoliang Xing, Mo Sha, Greg Hackmann, Kevin Klues, Octav Chipara, and Chenyang Lu, *Towards Unified Radio Power Management for Wireless Sensor Networks*, Wireless Communications and Mobile Computing (WCMC), special issue on Distributed Systems of Sensors and Actuators, Vol. 9, Issue 3, pp. 313-323, March 2009.
 14. Yuebin Bai, Shujuan Liu, Mo Sha, Yang Lu, and Cong Xu, *An Energy Optimization Approach Based on Cross-layer for Wireless Sensor Networks*, Journal of Communications (JCM), special issue on Selected Papers on Communications of the International Symposium on Electronic Commerce and Security, Vol. 3, Issue 6, pp. 27-34, November 2008.

Software artifacts:

1. Real-time Radio Switching and Bundling (RRaSB) system, <https://github.com/di-mu/RT-Select-General-code>.
2. Parameter Selection and Adaptation Framework (P-SAFE) for industrial wireless sensor-actuator networks, <https://github.com/junyang28/paper-psafe>.
3. Attacking program that cracks channel hopping sequences and graph routes in industrial TSCH networks, https://github.com/iio-research/Cracking_TSCH.
4. Cross-Technology Communication (CTC) from LoRa to ZigBee in the 2.4 GHz band, <https://github.com/junyang28/paper-psafe>.
5. Cross-Technology Communication (CTC) from LoRa to ZigBee in the sub-1 GHz bands, <https://github.com/junyang28/paper-lorabee>.
6. Distributed Graph routing and autonomous Scheduling (DiGS) Solution for industrial TSCH networks, <https://github.com/junyang28/paper-digs>.
7. Adaptive Radio and Transmission Power Selection (ARTPoS) system, <https://github.com/di-mu/ARTPoS-code>.

PROFESSIONAL SERVICE

Conference Technical Program Committee Member:

IEEE International Conference on Computer Communications (INFOCOM)	2018, 2019, 2020, 2021
IEEE Real-Time Systems Symposium (RTSS)	2017
ACM Conference on Embedded Networked Sensor Systems (SenSys)	2017
IEEE International Conference on Distributed Computing Systems (ICDCS)	2017
IEEE Conference on Internet-of-Things Design and Implementation (IoTDI)	2017, 2018
International Conference on Embedded Wireless Systems and Networks (EWSN)	2017, 2018, 2021
IEEE International Conference on Sensing, Communication and Networking (SECON)	2021
IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA)	2016, 2017, 2018, 2019
IEEE International Conference on Industrial Internet (ICII)	2018, 2019
ACM Symposium On Applied Computing (SAC)	2021
IEEE International Conference on Computer Communications and Networks (ICCCN)	2019
International Conference on Distributed Computing in Sensor Systems (DCOSS)	2018
IEEE International Conference on Parallel and Distributed Systems (ICPADS)	2017
IEEE International Symposium On Real-Time Distributed Computing (ISORC)	2021
IEEE International Conference on Mobile Ad-hoc and Sensor Networks (MSN)	2019
IEEE International Conference on Embedded Software and Systems (ICCESS)	2020

Conference Organization Team Member:

Session Chair, IEEE International Conference on Computer Communications (INFOCOM)	2019
Session Chair, IEEE International Conference on Industrial Internet (ICII)	2019
Session Chair, ACM/IEEE Conference on Internet-of-Things Design and Implementation (IoTDI)	2019
Publicity Co-Chair, IEEE Conference on Internet-of-Things Design and Implementation (IoTDI)	2018
Session Chair, IEEE/ACM International Symposium on Quality of Service (IWQoS)	2017
Submission Chair and Session Chair, IEEE Conference on Internet-of-Things Design and Implementation (IoTDI)	2017
Web Chair, ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS)	2012

Journal Referee:

ACM Transactions on Sensor Networks	2010, 2013, 2015, 2017, 2018, 2019, 2020, 2021
IEEE/ACM Transactions on Networking	2015, 2016
ACM Transactions on Cyber-Physical Systems	2016, 2017, 2018
ACM Transactions on Internet of Things	2018, 2019, 2020
IEEE Transactions on Communications	2016, 2017
IEEE Transactions on Computers	2011, 2020
IEEE Transactions on Green Communications and Networking	2017, 2021
IEEE Transactions on Industrial Informatics	2009, 2011, 2015, 2017, 2018, 2020, 2021
IEEE Transactions on Intelligent Transportation Systems	2017, 2019, 2020
IEEE Transactions on Mobile Computing	2015, 2017, 2018, 2019, 2020
IEEE Transactions on Network Science and Engineering	2019, 2020, 2021
IEEE Transactions on Services Computing	2019, 2020, 2021
IEEE Transactions on Parallel and Distributed Systems	2012
IEEE Transactions on Vehicular Technology	2013, 2018
IEEE Transactions on Wireless Communications	2012, 2014, 2017, 2019, 2020, 2021
IEEE Access	2018, 2019, 2020, 2021
ISA Transactions	2015
IEEE Internet of Things Journal	2015, 2019, 2020, 2021
Wireless Communications and Mobile Computing	2021
Internet Technology Letters	2020
Computer Networks	2009, 2013

Others:

NSF Panelist	2018
Reviewer of New Member Applications for Sigma Xi	2020
Founding Member of IEEE SIG on Big Data Intelligent Networking	

This page intentionally left blank

THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
Academic Policy and Student Affairs Committee
September 14, 2021

Subject: 2022-2023 Legislative Budget Requests

Proposed Committee Action:

Recommend to The Florida International University Board of Trustees approval of the 2022-2023 Legislative Budget Requests:

- Strategic Degree Implementation Plan Request: \$4,850,188
 - Program of Distinction in Environmental Resilience Request: \$15,150,000
-

Background Information:

Pursuant to Section 7, Article 9 of the Florida Constitution, the Board "...shall operate, regulate, control, and be fully responsible for the management of the whole university system." Included within this responsibility is the development of a Legislative Budget Request (LBR). In addition, Section 216.023(1), Florida Statutes, requires the submission of a LBR to the Legislature and Governor based on an independent judgment of needs.

The LBR is an assessment of needs developed by the Florida Board of Governors in cooperation with the universities. The Florida Board of Governors requires that all State University System institutions submit their institutional LBR request for review and approval.

Supporting Documentation: 2022-2023 Legislative Budget Requests

Facilitator/Presenter: Kenneth G. Furton

This page intentionally left blank

**State University System
Education and General
2022-2023 Legislative Budget Request
Form I**

University(s):	Florida International University
Request Title:	FIU Program of Distinction on Environmental Resilience
Date Request Approved by University Board of Trustees:	Expected September 2021
Recurring Funds Requested:	\$15,150,000
Non-Recurring Funds Requested:	
Total Funds Requested:	\$15,150,000
Please check the request type below:	
Shared Services/System-Wide Request	<input type="checkbox"/>
Unique Request	<input checked="" type="checkbox"/>

- I. Purpose** – 1. Describe the overall purpose of the plan, specific goal(s) and metrics, specific activities that will help achieve the goal(s), and how these goals and initiatives align with strategic priorities and the 2021 University Accountability Plan established by your institution (include whether this is a new or expanded service/program). If expanded, what has been accomplished with the current service/program? 2. Describe any projected impact on academic programs, student enrollments, and student services. University of Distinction proposals should also address the requirements outlined in the separate guidance document.

A. Introduction

The FIU Program of Distinction on Environmental Resilience is aimed at supporting the Board of Governors Strategic Plan and FIU's 2025 Strategic Plan of achieving exceptional student-centered learning and graduate success, producing meaningful research and creative activities, and leading transformative innovation. In addition, this proposal directly addresses recommendations from both the Florida Council of 100's Project Sunrise report and the Chamber of Commerce 2030 report. Specifically, this proposal will create a "Strong Florida" through the creation of policies and projects that improve the health of Florida's cities and communities, and through a future workforce able to communicate across disciplines and implement convergent research approaches. This budget request addresses two pillars of FIU's strategic framework: 1) Accelerate Preeminence & Research and Innovation Impact, and 2) Amplify Learner Success & Institutional Affinity. The Environmental Resilience program concentrates collaboration across several of FIU's Preeminent research centers that have gained distinction through State and Federal investments in the recruitment of nationally recognized faculty. These

centers and programs, which have secured over \$400M in research awards over the last 10 years, include the Institute of Environment, the Extreme Events Institute, the Institute for Resilient and Sustainable Coastal Infrastructure (InteRaCt), the Brain, Behavior and the Environment Program, and the Center for Children and Families (CCF).

FIU's leadership in environmental research and public health grew out of FIU's distinctive geographic location, diverse population and vulnerable South Florida ecosystem. From FIU's inception, faculty have focused on environmental research because of the Everglades, the Florida Keys, the coastal regions such as Florida and Biscayne Bays, and our hurricane vulnerabilities. Similarly, the size, heterogeneity and complexity of South Florida's population have attracted world class faculty to FIU to study the region's unique public health challenges.

The FIU Program of Distinction on Environmental Resilience is designed to advance our current research programs and lead to innovative solutions for enhancing local, regional, and national resilience to environmental change, including preparing the workforce needed to address these challenges. It will also raise FIU's academic standing by leveraging existing programs of national preeminence to generate new knowledge and innovative solutions for the betterment of the environment, health, and society. This will solidify FIU's role as a top urban public research university and leader in environmental resilience and solutions. If funded, this proposal for the Program of Distinction will enable FIU to further attract and retain the best, most productive faculty, cultivate future leaders, and nurture all students, post-doctoral scholars, researchers, and staff to excel.

The metrics measuring program success will be as follows:

- At least one metric must demonstrate a year-one accomplishment or success.
 - Buoy Design and Construction for water monitoring by the end of the first year and deployment on the second year.
 - Initial mapping of coastal water monitoring needs.
 - Development of storm-related prevention workshops during the first six months of the year.
 - Within the first year of funding, the Environmental Resilience program will submit at least one student training grant application to the NIH or NSF to financially support students being trained in the program.
 - Within the first year of funding, the Environmental Resilience program will submit a NIH Core Center of Excellence (P30) grant application to National Institute of Environmental Health Sciences (NIEHS) focusing on addressing the impact of environmental factors on brain health.
- At least two metrics must demonstrate a return on investment to the state.
 - During second year, sessions of the Miami International Conference on Evidence-based Treatments for Childhood and Adolescent Mental Health (MICAMH) dedicated to storm-related prevention workshops for mental health professionals and parents.
 - Enhanced water quality monitoring statewide, securing Florida's coastlines which are crucial for its economic activity from tourism and sustaining its natural marine resources.

- Development of the Environmental Finance program to provide sustainable environmental policies and practices for government and ensure the proper operation of free markets and property rights.
 - FIU will develop a series of professional development workshops and technical reports that will be provided to stakeholders, policy makers, business, and government entities to explore new ways to link finance with environmental resilience.
 - Continued improvement in the U.S. News and World Report “Best States” category as tracked by the Florida Council of 100.
- Metrics that demonstrate how the program has improved over time as a result of the funding.
 - FIU’s Program of Distinction has been a leader in Florida’s Everglades restoration efforts with its “[FIU in the Everglades](#),” leading numerous discussions, workshops, and research studies.
 - Centers within the Program of Distinction continue to be successful in proposing and securing external research funding for their projects.
 - Metrics and/or rankings to demonstrate program elevation to excellence and prominence.
 - Over the first five years, based on research expenditure growth, of the academic fields associated with the Program of Distinction, the rankings will improve in the NSF HERD’s STEM field categories as follows:
 - Psychology – From current #9 of 438 programs among public universities to top 5.
 - Computer Science – From current #54 of 430 programs among public universities to top 40.
 - Environmental Sciences – From current #65 of 431 programs among public universities to top 50.
 - Health Sciences – From current #90 of 448 programs among public universities to top 75.

B. Creating Unique, Interdisciplinary Approaches to Florida’s Environmental Resilience

This Program of Distinction addresses important environmental challenges: (1) Enhanced Water Quality Monitoring for Coastal Health and Resilience, (2) Environmental Forensics and Public Health, (3) Environmental Finance and Risk Management, (4) Family Preparation and Resilience to Disasters.

1. Enhanced Water Quality Monitoring for Coastal Health and Resilience

Tourism is an important component of Florida’s economy, much of which is focused on Florida’s more than 600 miles of coastline. These world-renowned economic assets are vulnerable to a myriad of environmental and human-driven challenges, e.g., harmful algal blooms (HAB), which create health risks and had significant negative impacts of up to \$130 million on tourism as reported by the Tampa Bay Regional Planning Council in

2018. Most recently, we have observed first-hand our near-shore Bay assets, such as Biscayne Bay, as they continue to deteriorate due to infrastructure failures as well as declining water quality.

It is imperative that we establish state-of-the-art water quality monitoring throughout our southern coastlines as well as in the interior freshwater bodies that transport pollutants to the coastline. Through FIU's Center of Excellence in Aquatic Chemistry and Environment (described below), we are developing those necessary tools to provide the real-time data needed to make predictions regarding harmful algal blooms, fish kill events, and water quality deterioration.

In this initiative, we propose to acquire and employ a real-time, distributed sensing platform to measure and predict the occurrence of water quality and infrastructure issues and their likely severity and impacts on coastal ecosystems. In order to improve ecological models that predict the presence and locations of harmful coastal inputs, FIU seeks to understand the factors driving coastal water quality collapse.

To model the timing and spatial distribution of contaminants and pollutant inputs and water quality issues, FIU must be able to simultaneously measure climate (air temperature, light, windspeed and direction), aquatic environmental drivers (temperature, light, turbidity, dissolved oxygen, nitrogen, phosphorus, pH, pCO₂, conductivity), biotic responses (algal cell densities and sizes, florescence, chlorophyll), and current/flow profiles (3-dimensional current velocity and direction, wave direction). This requires the design, development, and deployment of a sophisticated water quality buoy platform that simultaneously measures the biological and physical variables associated with poor water quality and the development of HABs, as well as other water quality-induced phenomena such as fish kill events. We will also develop sensing techniques specific for brevetoxins, which are known to be harmful to humans.

To fully utilize the data, FIU will develop and maintain a near-real-time database for both Biscayne and Florida Bays, and the Florida Keys built on our 20-year record of data collected along a series of monitoring stations. In addition to a spatially explicit database, computer scientists in our CREST Center (described below) are developing computer algorithms to search other existing city, county, and state datasets such as those at Florida Department of Environmental Protection (FDEP), South Florida Water Management District (SFWMD), Miami Dade County, etc., to harvest existing data and more fully populate the FIU database with ancillary information.

It is important to note that while it is imperative to be able to predict where and when nuisance algal blooms will occur to prevent human health issues, it is equally important to be able to predict where coastlines are free of such events and readily usable to the public and tourists.

2. Environmental Forensics and Public Health

Environmental Forensics requires a cross disciplinary approach that encompasses the understanding of the sources of environmental contaminants, their transport through key ecosystems and their subsequent incorporation into humans and other fauna. The role of elements such as magnesium, calcium, zinc, or manganese in high concentrations are

now known to be involved in the onset and progression of chronic diseases like Alzheimer's or Parkinson's.

This initiative will: (a) improve basic scientific understanding of global change and anthropogenic effects caused by multiple environmental drivers, the physical and biological responses measured in water quality, soil, and sediment contamination, emerging diseases, invasive species, and other global stressors that are a risk to ecosystems and community health—filling the knowledge gap; (b) train students in the practices and uses of technologies needed to better understand risk assessment and mitigation with innovative solutions; and (c) provide state of the art facilities that can support faculty and student researchers at FIU and around the nation—to fill research gaps that now exist because the capabilities and instrumentation are not available.

The team composition reflects the complex nature of the problem; toxic metals, for example, are affecting ecosystems like the Florida Everglades and its resources, inducing adverse outcomes pathways in marine organisms, influencing mental health of populations, and creating environmental inequalities in minority populations. Another area of concentration is the characterization of environmental materials for provenance discrimination and/or geographic origin identification.

3. Environmental Finance and Risk Management

FIU established an Environmental Finance and Risk Management Program (“Environmental Finance”) to provide useful data and sustainable environmental policies for government and the private sector. The goal of the program is to apply the most sophisticated financial modeling to the latest environmental data in real time, so that the market has an accurate picture of the environmental risks.

A main focus of the program is to help ensure the proper operation of efficient markets within a sound public policy framework. For example, the programs help make sure that flood and hurricane insurance are priced correctly, and that investments in mitigation and adaptation measures are accurately reflected in the price. By linking theories and modeling techniques of finance and environmental sciences via mathematics and data science, and then studying the practical applications of this to environment-linked securities, the Environmental Finance program will offer a first-of-its-kind academic model for assessing, managing, and reducing the most serious environmental risks facing Florida and the world.

About the Program

FIU's Environmental Finance program provides solutions to environmental challenges that require research from many different fields to address. This program includes researchers and faculty from engineering, finance, mathematics, data analytics, risk management, resilience, sustainability, environmental law and policy, and coupled systems. It will also emphasize environmental finance's relevance to a growing number of commercial and policy applications. This integrated, interdisciplinary program will prepare a generation of leaders with expertise in those disciplines to meet the gravest environmental challenges, and either find or create high paying careers.

The program uses a unique “convergent” research approach that combines financial engineering and environmental science. This integration of finance and environmental science can be achieved by applying advanced financial models to environmental data in real time, so that governments and markets can correctly “price” the full array of environmental risks. Without this quantitative approach, many of our most crucial resiliency strategies are a matter of speculation with the potential for enormous social losses, whether risks are underestimated or overestimated, inflicting losses on taxpayers one way or the other.

The Environmental Finance program is built like a pyramid, with research at the base, followed by education, stakeholder outreach, and solutions at the apex.

- **Research.** With a focus on environmental parameters as triggers for financial flows, EFRM’s basic research will help governments and markets to assess and price environmental risks in real time on the basis of the latest data. These applications can help strengthen and advance virtually every area of sustainable finance, from disaster preparedness and resilience to climate change mitigation and environmental sustainability, through advanced financial instruments such as catastrophe bonds, weather derivatives, index insurance, carbon emissions trading systems, debt-for-nature swaps, mitigation banking, green bonds, and ESG investments
- **Education.** The program will offer an undergraduate major, and graduate and professional certificates (a series of for-credit courses taken together to achieve a level of understanding and proficiency). Full master’s and Ph.D. programs are being developed. The certificate programs will be taught in-person and fully online for working professionals. The certificates will also be made available to non-degree-seeking students from around the state, country, and internationally.
- **Outreach.** EFRM also has a robust program of community, state, and national outreach. Program researchers are working with government entities to increase awareness of regional resiliency efforts and are working with stakeholders to develop reports and recommendations for a coordinated regional strategy for addressing critical environmental challenges.
- **Solutions.** Building on those foundations, our program will craft innovative solutions to critical environmental problems that governments and the private sector need in order to prepare for future challenges.

4. Family Preparation and Resilience to Disasters

Given increasing risk from severe weather and other shock events in Florida, preparing the state’s most vulnerable populations is critical, in both pre- and post-impact periods. FIU’s Center for Children and Families (CCF) and Extreme Events Institute (EEI)/International Hurricane Research Center (IHRC) are well positioned to address this critical challenge. The CCF-EEI/IHRC teams will coordinate to develop workshops focused on promoting storm- and shock-related media literacy for Floridians by helping families (a) make sense of meteorology reports, storm updates, and shock event coverage, (b) learn to distinguish actionable updates from more “spectacle-focused” coverage, and (c) appreciate the negative impacts that extensive media exposure can have on child and family functioning. Parents will receive coaching on how to talk to children across

different developmental levels about impending storms and shock events and about destruction and loss, and will be trained on how to identify signs of significant impact and adjustment difficulties in their children and themselves.

In the context of shock or severe weather events, addressing emotions and preparation is not only critical from a public mental health perspective, but also from a public safety perspective. Research documents how stress and irrational public behavior constrain responsible decision-making and place Floridians at risk. During storm watches for example, masses of individuals not dwelling in evacuation zones make emotion-based decisions that contribute to pervasive traffic congestion/gridlock and widespread gas shortages that disrupt and prevent timely evacuation for those in mandatory evacuation zones and in immediate danger. Poor pre-season household preparation (e.g., stocking water, non-perishables, batteries, and other supplies) leads to abrupt supermarket shortages during individual storm watches that lead to additional unwarranted evacuations that burden the smooth and timely flow of evacuees from high-risk/mandatory evacuation regions. In fact, one of the leading reasons individuals in high-risk zones give for not choosing to evacuate is their concern that evacuation routes (and subsequent return routes) will be overcrowded and that they will not be able to access needed fuel along the way.

Once the shock- and storm-related prevention workshops are developed, the CCF is well-poised to disseminate them to the rest of the State of Florida through multiple mechanisms. The CCF's annual Miami International Conference on Evidence-based Treatments for Childhood and Adolescent Mental Health (MICAMH) can be used as a dissemination site as it is attended by mental health professionals from around the state. Further, the CCF has extensive experience disseminating information to health professionals throughout Florida and the U.S. through its decade-old website on Evidence-based Practices in Child Mental Health. Further, Dr. Jonathan Comer, a member of the CCF with expertise on the impact of disasters on child mental health, has developed procedures for modifying parenting programs to be delivered over the internet, and has shown that the impact is comparable to face-to-face trainings/sessions. Thus, the team will develop both face-to-face and web versions of shock- and storm-related prevention materials. The dissemination effort will also be facilitated through the extensive networks of FIU's Extreme Events Institute (EEI) and International Hurricane Research Center.

C. Workforce of the Future

The future workforce will need to be able to communicate across disciplines, implement convergent research approaches, and navigate the technological innovations of coming decades. Attracting and retaining top research faculty will provide our undergraduate and graduate students with exceptional preparation for innovatively solving the most critical environmental resilience challenges. In addition to traditional in-class and lab training, this proposal includes extensive field opportunities and innovative workforce training components. The U.S. Bureau of Labor Statistics, Employment Projections program highlights that future jobs will require degrees, credentials, and skills offered by trans-disciplinary programs, such as Environmental Risk Management, Engineering, Public Health, and Disaster Management.

Alongside the research programs mentioned above, we will develop the workforce needed to enhance environmental resilience locally and nationally. A few specific programs to be added to our current offerings include:

Certificate in Environmental Finance and Risk Management.

As mentioned above, very few students or faculty have training in both finance and environmental science. This initiative will link our pre-eminent Institute of Environment with our nationally ranked programs in mathematics, statistics, finance, policy, law, business, and engineering to establish a graduate/professional certificate program in Environmental Finance, not only for our students but for professionals from around the country and the world who are working to solve the challenges of Environmental Resiliency. The overarching goal of the Certificate Program is to spur an understanding of how the modern global financial system interacts with multiple natural systems. Specific goals are to train future scientific, financial, and policy professionals in:

- The advanced quantitative skills required to understand, evaluate, and price modern financial instruments that are linked to environmental parameters. Such skills include scientifically based risk assessment, analytic techniques of mathematical finance, and computer-based simulation techniques.
- Key statistical methods and techniques for applying these methods to scientific and financial data.
- Key concepts of the role of finance as part of the dynamic coupled Earth Systems.

Environmental Fellows pipeline and top student recruitment.

The Environmental Fellows pipeline will be focused on the development and recruitment of top-qualified and diverse talent from South Florida schools. This will include high school teacher trainings, intense summer research experiences, guaranteed undergraduate research placements and paid internships in the fields related to Environmental Resilience.

Graduate student retention, doctoral student and postdoctoral fellow support. Graduate students and postdoctoral fellows constitute a fundamental scientific workforce for research centers and research programs. FIU will provide financial support for recruitment and retention of graduate students and postdoctoral fellows who will work with the faculty directly involved with these programs.

Industry partnerships, trainings and certifications.

This funding will support partnerships with industry in developing technological solutions to address environmental challenges and partnerships in workforce training. Artificial intelligence, robotics and financial management in industry competency for environmental resilience associated with the proposed Environmental Resilience program of distinction.

Artificial Intelligence & Robotics.

Automation and machine intelligence promise to fuel economic growth and produce new occupations, with likely impact on almost all industries and occupations. The broad-based application of Artificial Intelligence (AI) to software and hardware systems is launching a significant leap forward, creating intelligent software applications and

robotic machines that learn from experience to make decisions and process vast amounts of data to reach independent conclusions. Therefore, we propose training in automation and robotic processes, in partnership with our Robotics Academy.

To further disseminate the findings, FIU will develop a series of professional development workshops that can be provided to stakeholders, policy makers, business, and government entities to explore new ways to link finance with environmental resilience.

D. Research Centers and Programs Participating in the Environmental Resilience Core Competence Program

The Institute of the Environment

The Institute of the Environment has over 130 faculty and staff and includes the Southeast Environmental Research Center (SERC), the Center for Coastal Oceans Research and the Medina Aquarius Program, the Florida Coastal Everglades Long Term Ecological Research Program, plus an NSF-funded Center of Excellence on aquatic chemistry and ecotoxicology. It also includes the Sea Level Solutions Center, bringing together faculty from nearly every college and school at FIU to address challenges posed by rising seas and other environmental threats. In addition, the Institute features organized research units on the Sustainable Built Environment and Informatics, International Programs, and a UNESCO Chair on Water Security and Social Equity. From the wetlands of the Everglades to the coral reefs in the oceans, institute researchers are helping to preserve freshwater and marine resources for future generations. The Institute of Environment is the largest research center/institute at FIU, with a portfolio of over \$40M in research awards, which includes both research grants and training grants for undergraduate and graduate students.

The Director of the Institute, Dr. Todd Cowl, has more than 30 years of experience working on interdisciplinary projects related to ecosystems science and aquatic ecology, including urban stream ecology. Dr. Cowl has received and managed more than \$40M of grants, including two of the NSF's largest Center of Excellence awards.

The Institute of Water and the Environment houses several flagship programs that have State of Florida, national and international recognition. These flagship programs include:

- The Center for Aquatic Chemistry and the Environment (CACChE): A National Science Foundation (NSF) Center of Research Excellence in Science and Technology (CREST) that tackles one of the most complex challenges—environmental contamination. CREST has funded over 30 PhD students and over 50 undergraduate and master's students.
- The Florida Coastal Everglades (FCE) LTER Program: Part of the Long-Term Ecological Research (LTER) Network established by the National Science Foundation in 1980. The FCE LTER Program was established in May of 2000 in South Florida, where a rapidly growing population of over 6 million people live near - and in dependence upon - the Florida Everglades. The program includes 86 senior scientists and 77 students from 29 institutions. FCE researchers study how hydrology, climate, and human activities affect ecosystem and population dynamics in the ecotone

and more broadly, the Florida Coastal Everglades. FIU researchers working in the Everglades provided the data and water quality analyses that were used to set Florida's water quality criteria. The criteria for allowable phosphorus concentrations in freshwater are still in force and have significantly diminished the threat of catastrophic algae bloom in the Everglades.

- The Southeast Environmental Research Center (SERC) Water Quality Monitoring Network. Operated by SERC, the function of the Network is to address regional water quality concerns that exist outside the boundaries of individual political entities. Funding for the Network has come from many different sources with individual programs being added as funding became available. Field sampling occurs over different time periods due to the nature of the funding. The Florida Keys National Marine Sanctuary and the Southwest Florida Shelf are sampled quarterly. The data summary maps are produced on a quarterly basis by integrating the individual projects into one data file for that month sampled. Previous surveys of Biscayne Bay, Florida Bay & Whitewater Bay, Ten Thousand Islands, and Marco-Pine Island Sound were sampled monthly.
- The Center for Coastal Oceans Research. The Center consists of the Medina Aquarius Program, the world's only permanent undersea research laboratory, and partners with the Florida Keys National Marine Sanctuary, and the Rookery Bay Research Reserve.

The Extreme Events Institute (EEI)

The EEI comprises the International Hurricane Research Center and the Disaster Resilience and Climate in the Americas program. The EEI is a globally involved center for research, education, and training in natural hazards and disaster risk management. The Institute conducts multi-disciplinary research on hazards and vulnerabilities of all types, with emphasis on the role of pre-impact risk drivers. The Institute includes faculty and researchers from the social and behavioral sciences, engineering, computer science, earth and atmospheric sciences, public health, public administration, business, and architecture. The EEI manages the Wall of Wind Laboratory, which was established through a State of Florida Center of Excellence and is funded through the NSF Natural Hazards Engineering Research Infrastructure (NHERI) program. The EEI developed and manages the Florida Public Hurricane Loss Model. The EEI has a portfolio of \$15.6M in research awards from a variety of agencies, including the NSF, NOAA and USAID.

The Director of EEI is Dr. Richard Olson, an international expert on disaster management. Professor Olson was part of a research team to the 1972 Managua, Nicaragua earthquake and was subsequently involved in disaster response, research, and evaluation of more than 20 events, including Guatemala 1976 (earthquake); Chile 1985 (earthquake); Mexico City 1985 (earthquakes); Colombia 1985 (volcanic eruption and lahar) and 1994 (earthquake and landslide); Peru and Bolivia 1996-1998 (El Niño-Southern Oscillation); the Dominican Republic 1998 (Hurricane Georges); Honduras and Nicaragua 1998 (Hurricane Mitch); Belize 2000 (Hurricane Keith); and El Salvador 1986 and 2001 (earthquakes). He subsequently organized field research teams to the Chile and Haiti earthquakes of 2010.

The Institute for Resilient and Sustainable Coastal Infrastructure (InteRaCt)

InteRaCT identifies engineering solutions for challenges faced by aging infrastructure and develops innovative and economical technologies for the creation of resilient and sustainable communities. The economic prosperity of the United States is closely related to the health of the nation's infrastructure, which includes aviation, bridges, dams, drinking water, waterways, ports, rail, transportation, roadways, bridges, communication, energy, wastewater systems, water management systems, and power systems, to name a few. InteRaCt is an umbrella organization that incorporates bridge engineering, the U.S. Department of Transportation-funded University Transportation Center (ABC-UTC), and the Lehman Center for Transportation Research.

InteRaCT has a portfolio of research awards of \$5.1M. The Director of the Institute, Dr. Atorod Azizinamini was recruited as a cluster hire to be the chair of Civil and Environmental Engineering in 2011.

The Brain, Behavior and the Environment Program

The Brain, Behavior and the Environment Program is a trans-disciplinary initiative at FIU that unites the dynamic and diverse neuroscience community at FIU toward three goals: to create and empower research programs focused on environmental causes of neurological disease, to devise strategies and develop treatments for neurological disorders using novel neuroscience and engineering tools as well as pharmacological approaches, and to establish a rich educational resource in South Florida to educate students, faculty, clinicians, the public, and health officials on the role that environmental factors play in neurological disease. This program currently has \$10M in research awards, with the majority being from the NIH.

The Brain, Behavior and the Environment Program includes a multidisciplinary group of faculty. Dr. Tomas Guilarte is the director of the Program and Dean of the Robert Stempel College of Public Health & Social Work. Dr. Guilarte was recruited through a World Class Scholars initiative. Dean Guilarte is renowned for revealing the effects that low-level lead exposure has on the central nervous system during brain development, a discovery that led to strategies for mitigating learning deficits. He joined FIU after serving as the inaugural Leon Hess Professor and Chairman of the Department of Environmental Health Sciences at Columbia University-Mailman School of Public Health in the City of New York. Prior to Columbia University, Dr. Guilarte spent three decades as a professor and researcher in the Department of Environmental Health Sciences at the Johns Hopkins University Bloomberg School of Public Health.

The Center for Children and Families (CCF)

The CCF is a nationally recognized, interdisciplinary clinical research center committed to improving the lives of children and families struggling with mental health concerns. The mission of the CCF is to (1) study the causes and nature of children's mental health problems, (2) to develop and test intervention and prevention models for evidence-based, cost-effective services that can be used to improve mental health in children and families at a population level, (3) to provide services for children and families in clinic and community settings, and (4) to educate students, families, and professionals in the U.S. and abroad regarding the causes and treatment of childhood mental health and effective intervention and prevention. The CCF has over \$60M in research awards (50 grants), with the majority being from the NIH. The CCF was recruited to FIU from SUNY

Buffalo as a part of a cluster hire, and its director, Dr. William Pelham, is internationally recognized as a leader in child mental health and has received numerous national awards recognizing his contributions. Dr. Pelham has hired 25 faculty members in the CCF, all of whom have all obtained federal funding for their research and the majority of whom have won early and midcareer awards for their research. Dr. Jon Comer has received national exposure for his research on children's response to disasters, including hurricanes. Dr. Pelham has held more than 80 research grants (16 current) from federal agencies (NIMH, NIAAA, NIDA, NINDS, NICHD, IES), foundations, and pharmaceutical companies, and has over 400 scientific publications. CCF faculty together publish more than 160 scientific papers annually. Dr. Pelham and other CCF faculty have served as consultants/advisors to numerous federal agencies (e.g., NIMH, NIAAA, NIDA, NICHD, IES, ACF, SAMHSA, IOM, OMAR, CDC, and AHRQ) and national organizations (AAP, AACAP, APA, CHADD, NICHQ, SDBP). The CCF conducts a nationally prominent annual conference, the Miami International Conference on Evidence-based Treatments for Childhood and Adolescent Mental Health (MICAMH), that is attended by more than 500 mental health professionals throughout Florida.

E. Funding Categories (excluding Personnel listed in Section III)

Faculty Research Grant Support (\$600,000)

The growth of the program of distinction in terms of obtaining external research funding and quickly moving the research finding into technical applications and programmatic applications will depend on the recruitment of staff. Staff will be essential in providing the necessary administrative support, and perhaps more importantly, support in the pursuit of funding for the basic and translational research that will be conducted.

Recruitment Scholarships and Retention/Completion Grants (\$1,500,000)

This funding will expand the merit scholarship budget towards the goal of improving the incoming student profile in the disciplines associated with the Environmental Resilience program of distinction, as well as retaining and accelerating the graduation rates of students. These funds also support students who face unexpected emergencies and financial circumstances that impact their ability to remain enrolled.

Industry Partnerships for Economic Growth/Workforce Development in Environmental Resilience (\$1,000,000)

An important component of FIU's 2025 Next Horizon Strategic Plan is learner success through alignment with industry workforce needs. This funding will support partnerships with industry in developing technological solutions to address environmental challenges and partnerships in workforce training. Artificial Intelligence, Robotics and Financial management in industry competency for Environmental Resilience associated with the proposed Environmental Resilience program of distinction.

This will include:

- Identification and badging "essential" skills
- Identification and badging industry-recognized credentials throughout degree programs
- Alignment of essential skills to University Core Curriculum
- Development and/or alignment of continuing education for workforce development

Ongoing Support for Field Deployed Monitoring Equipment and Data Processing Technologies (\$2,500,000)

The funds will be used to establish and maintain world-class coastal monitoring systems and centralized data-processing to inform policy and decision-making. This dataset will be available to all researchers focused on enhancing the resilience of Florida's coastal environment and the large populations living in near proximity. This program will require continuous upgrades and maintenance support to ensure it is well-positioned to help answer the critical questions facing Florida.

II. Return on Investment - *Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on improving retention rates, indicate the current retention rate and the expected increase in the retention rate. Similarly, if the issue focuses on expanding access to academic programs or student services, indicate the current and expected outcomes. University of Distinction proposals should also address the requirements outlined in the separate guidance document.*

Return on Investment will be measured through metrics listed earlier that are directly related to the impact of the Environmental Resilience program on specific areas of program focus, as well as on the overall impact on FIU's progression in student success and research excellence. Through the program's accomplishments, FIU will also contribute to the SUS goal of Florida continuing to lead in higher education across the nation. Competition for economic drivers such as corporations, business infrastructure, and research and development are estimated to only increase across the state, and we believe FIU's relative contributions to these SUS goals will help to retain existing and drive new business and industry to Florida. This request focuses on Accelerating Program of Distinction Research, Student Success and Innovation Impact.

III. Personnel - *Describe personnel hiring and retention plans, making sure to connect both plans to initiative(s) and goal(s) described in section I. State the amount of faculty FTE and staff FTE and estimated funding amounts used for retention and new hires in each category. In describing faculty hires, provide overall hiring goals, including academic area(s) of expertise and anticipated hiring level (e.g., assistant professor, associate professor, full professor. Please describe how funds used for faculty or staff retention will help the institution achieve its stated goals. University of Distinction proposals should clearly note how anticipated hires or retained individuals will help the institution elevate a program or area to national or state excellence.*

Faculty Recruitment/Teaching and Research (\$7,000,000)

Faculty are the main drivers of research and student success at a university. To expand the interdisciplinary research collaboration of the Environmental Resilience program of distinction, faculty recruitment will be essential. Following the successful approach that has brought FIU to the status of a Research I University, the faculty recruited into this core program of distinction will consist of clusters that will both complement and add to

the existing faculty; and will be world class in their achievements and potential. We will focus on expertise in the intersect of environmental factors and public health, and resilient infrastructures. We will recruit 3 members of the National Academies of Sciences, 21 senior level faculty and 16 mid-level faculty.

The full impact of a program of distinction encompasses both research and teaching. Our goal is for the program to be a critical contributor to student success in all the areas (environment, infrastructure and public health) that are the interdisciplinary components of the program. Therefore, we will accelerate the recruitment of new faculty, with the recruitment focusing on curricular areas with highest demand within the integrated program. These new faculty members will focus on offering undergraduate level courses in various modalities to meet student demand and supply additional class sections required to ensure timely degree completion.

Environmental Fellows Career Pipeline (\$1,000,000)

The Environmental Fellows pipeline will be focused on the development and recruitment of top-qualified and diverse talent from South Florida schools. This will include high school teacher trainings, intense summer research experiences, guaranteed undergraduate research placements and paid internships in the fields related to Environmental Resilience.

Early engagement in research experiences leads to undergraduate student success, both in terms of early graduation and job placement success or continuation to post-graduate education. The Environmental programs at FIU already have recruitment and training connections with high schools and state colleges. This includes Research Assistantships for High School Students (RAHSS), as well as the Research Experience for Teachers (RET), and the Wind Engineering for Science Teachers (WEST) Workshop, which involves seasoned Miami-Dade County Public School (M-DCPS) teachers participating in a 6-week wind engineering research program. We will design an Environmental Academy pipeline by accelerating dual enrollment, providing High School students with summer research basics/fundamentals, and professional development for High School science teachers to strengthen the pipeline. This component of the program will also focus on establishing an early pipeline of State College students with interest in the fields of study associated with the program. FIU is already co-located with MDCPS's Marine Academy of Science and Technology (MAST) at its Biscayne Bay Campus.

Doctoral Student Support (\$800,000)

FIU's doctoral degree production has increased by 15% (373 to 430) in the past three years, with increases in research doctorates by 28% (151 to 194). Research doctoral education is an integral part of research preeminence, and a necessary component of recruitment of world class faculty. We will dedicate some of the financial support of doctoral students that will be part of the academic programs connected to the proposed program of distinction. This will support the continued success of these programs by being able to recruit the best and brightest doctoral student candidates. Since the research programs and institutes that are part of the proposed program of distinction receive significant external research grants and drive FIU's innovation, this investment will in turn increase external funding for doctoral students and amplify FIU's innovation impact.

Program of Distinction Postdoctoral Fellows (\$750,000)

Postdoctoral scholars constitute a fundamental scientific workforce for research centers and research programs. World Class faculty, when recruited, require postdoctoral support to back their research. Successful postdoctoral scholars conduct research, add to the research funding, and assist in the training of undergraduate and graduate students.

IV. Facilities *(If this issue requires an expansion or construction of a facility, please complete the following table.):*

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.				
2.				

This page intentionally left blank

2022-2023 Legislative Budget Request
Education and General
Position and Fiscal Summary
Operating Budget Form II
(to be completed for each issue)

University: Florida International University
Issue Title: FIU Program of Distinction in Environmental Resilience

	RECURRING	NON-RECURRING	TOTAL
<hr/>			
<u>Positions</u>			
Faculty	51.00	0.00	51.00
Other (A&P/USPS)	10.00	0.00	10.00
	-----	-----	-----
Total	61.00	0.00	61.00
	=====	=====	=====
Salaries and Benefits	\$8,808,251	\$0	\$8,808,251
Other Personal Services	\$1,166,774	\$0	\$1,166,774
Expenses	\$2,965,750	\$0	\$2,965,750
Operating Capital Outlay	\$2,209,225	\$0	\$2,209,225
Electronic Data Processing	\$0	\$0	\$0
Financial Aid	\$0	\$0	\$0
Special Category (Specific)	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$15,150,000	\$0	\$15,150,000
	=====	=====	=====

This page intentionally left blank

**State University System
Education and General
2021-2022 Legislative Budget Request
Form I**

University(s):	Florida International University
Request Title:	FIU Strategic Degree Implementation Plan
Date Request Approved by University Board of Trustees:	Expected September 2021
Recurring Funds Requested:	
Non-Recurring Funds Requested:	\$4,850,188
Total Funds Requested:	\$4,850,188
Please check the request type below:	
Shared Services/System-Wide Request	<input type="checkbox"/>
Unique Request	<input checked="" type="checkbox"/>

- I. Description** – 1. Describe the service or program to be provided and how this issue aligns with the goals and objectives of the strategic priorities and the 2020 University Accountability Plan established by your institution (include whether this is a new or expanded service/program). If expanded, what has been accomplished with the current service/program? 2. Describe any projected impact on academic programs, student enrollments, and student services. University of Distinction proposals should also address the requirements outlined in the separate guidance document.

Program Overview

FIU's Strategic Degree Implementation Plan will transform and reengineer how strategic degrees in STEM and Health are taught and optimized to increase retention, graduation rates, post degree marketability, career placement, and advancement or entrepreneurship.

The **FIU Strategic Degree Implementation Plan** will: (1) integrate best practices and deploy state of the art evidence-based instruction and advanced classroom assessment throughout critical courses for all strategic majors; (2) implement interventions that promote mental health and wellness, especially for first generation and millennial students; (3) further develop and refine best practices, assess and provide critical feedback to stakeholders, primarily aligning the curriculum with business and industry; and (4) leverage these initiatives to catalyze external investment and promote national prominence. The overarching goal is to drive greater efficiencies through shared system resources and provide this information to sister institutions in the Florida State University System.

The Initiative's goal is to attract high technology companies to Florida, as well as fuel entrepreneurial innovation, thus driving the economic prosperity of the state. This will be achieved both through the reputation earned by our engineering and computer science graduates, as well as through the evidence accumulated on student learning outcomes from our other strategic programs.

The State's economic prosperity is the impetus for this shift to align strategic degree production with our priorities. It drives universities to optimize the development, retention and ultimate graduation of future accountants, engineers, computer scientists, health care professionals, educators, and scientists, as they play an essential role in the knowledge economy. Eighty five percent of all FIU alumni choose to stay and reside in Florida, including computer scientists and engineers. They are at the cutting edge of the next wave of technological innovations and imperatives that are changing the economic model of our nation and the world, including the internet of things, blockchain, cyber security, and virtual markets.

This proposal integrates FIU's most impactful student success initiatives: the Graduation Success Initiative (GSI), the STEM Transformation Institute, Gateway to Graduation (G2G), Learning Assistants, and leverages past legislative investments in the School of Universal Computing Construction and Engineering Education (SUCCEED) to create a new paradigm for greater intentionality in programs of study, classroom instruction, student wellness, and ultimately student success. We think about student success with a focus on the future, as an expanded construct that prepares students for a technologically driven world that continues to evolve at an unprecedented pace. This initiative will focus on improving and expanding specific pedagogies inclusive of intentional experiential opportunities as well as authentic integration of technologies into the classroom. This Initiative will also allow FIU to fully engage all students in a modern, urban, research-based university education.

This Initiative leverages prior funding and support and expands student success and graduation rates through optimizing programs, classrooms, and experiences for our students to foster development of 21st century skills necessary in a knowledge-driven economy. Research and assessment of student learning outcomes resulting from the transformations are a core innovation that provides continuous feedback on the Initiative, as well as spur expansion across FIU and propagation across Florida's universities and colleges. The Initiative's goal is to be a sustained producer of a highly skilled and highly adaptable workforce that will serve as a launch pad for innovation and startups as well as attract high-tech companies to South Florida. To do this, FIU will leverage an existing framework to engage industry partners in the alignment of critical skills across the curricular and co-curricular experiences of our students.

The Initiative capitalizes on the opportunities afforded by the breadth of effective evidence-based instructional techniques, wide availability of technological devices that can be utilized for learning, FIU's proven expertise in preparing faculty to implement evidence-based instruction in their classrooms, and FIU's investment in designing intentional college to career pathways. Effective active learning techniques are well established and understood, yet propagation of these techniques across the critical courses taken by future professionals is often limited to faculty with expertise in evidence-based instruction. Faculty often teach as they were taught in college, using lectures as the primary method;

thus, the barrier to innovative instruction is sufficient and effective professional development. FIU has established interventions with prior funding and validated this renewed, affirmed approach with an emphasis on Gateway (high enrollment and high dropout) courses for all students. The initiative will help to scale the college-to-career model through intentional connection to industry partners, cohort-based programming to develop specific skillsets, and a tailored pathway that identifies critical career milestones for each year of enrollment.

The Initiative provides critical resources that make it possible to work across all strategic disciplines to change the landscape and prevent a return to the status quo. The focus is on disrupting the current system in order to establish a change in culture and support the increase in strategic degree success and productions that utilizes intentionality, designing experiential learning and curated opportunities to seek these degrees and leverages FIU's proven success in evidence-based instruction and data-driven decision making in order to optimize time and financial resources. Thus, parallel elements seek to provide resources to change the physical layout of rooms, develop curated pathways for students, improve faculty teaching practices, and establish a team of experts focused on targeting strategic degree completion through data-driven decision making.

FIU's top 10 strategic degrees include: Biological Sciences, Finance, International Business Management, Interdisciplinary Biological and Physical Sciences, Computer & Information Systems, Organizational Communication, International Relations, Health Services Administration, Nursing, Public Relations/Advertising/Application Communication. In academic year 2020-2021, these top 10 degrees accounted for over 4,500 degrees awarded by FIU. With greater intentionality and targeted interventions towards not only these 10 degrees, but all our strategic degree offerings, FIU believes it can contribute significantly more to the economic development of Florida.

FIU has the momentum to create, expand, and maintain innovative strategies that are impacting student success. State support is key to make these changes permanent and establish a new norm for the system.

Highlights of Current Investments:

Active Learning Classrooms

- 18 active learning classrooms renovated to date with support of state funding, ranging from 40 - 270 seats (total 1,485 seats). The 270-seat active learning classroom is likely the largest in the nation.
- Utilization: Fall 2019: 14,022 student enrollments across 257 sections of 166 courses / Spring 2020: 12,921 student enrollments across 269 sections of 156 courses, roughly half of the sections are for STEM courses. Over 200 faculty are utilizing the active rooms each semester.

Learning Assistants (LAs) impact:

- Learning Assistants are undergraduates who facilitate the learning of their peers in the classroom. The impact is profound, as LAs are near peers that recently succeeded in the classroom and are best able to help their peers while becoming leaders themselves.
- Mature course transformations that integrate LAs reliably lead to 15-25%, and up to 40% increases in pass rates.

- State funding has led to a rapid expansion of the LA Program. In Spring 2020, there were 420 LA assignments in over 60 courses, working with over 70 instructors. LAs impacted roughly 14,000 student enrollments.
- LA Program partnered with CAPS (Counseling and Psychological Services) to develop a Bystander Training to better identify students that may be struggling or in difficult situations and would benefit from campus mental health resources. The Bystander Training has been integrated into the LA Seminar that all new LAs enroll in. Expansion of the program is in development.

Increase in STEM course Passing Rates:

- In the last six full academic years, changes in instruction and increases in pass rates has led to an additional 16,000 students passing 21 key Gateway and STEM courses.
- Expanded implementation of a novel, evidence-based General Chemistry curriculum (Chemistry, Life, the Universe and Everything, CLUE) that has led to increased student success (15-20% when compared to traditional instruction) and reduced textbook costs (Free textbook and low-cost web-based materials).
- Introductory Physics sections utilizing Modeling Instruction see 40% increases in pass rate when compared to traditional instruction. Instructional materials are provided free of charge and utilize free online textbooks as reference.
- Calculus: Modeling Practices of Calculus Project (started on FIU funds, secured \$1.5M NSF funding): Finds a 20% average increase in pass rates over several semesters, \$200/course textbook savings, as all course materials are provided at no charge and students may use free online textbooks as reference materials. The department is adopting the curriculum across all sections. At least 4 FCS schools have used / will use the curriculum in Fall 2020.
- MAC 1147/ Pre-Calculus Algebra and Trigonometry: The *Precalculus: Pathways to Calculus* research-based problem-solving curriculum. Included restructuring and redesigning post College Algebra sequence from two semesters (one semester of Precalculus Algebra plus one semester of Trigonometry) to one semester, reducing course sequence to Calculus by one course. Aggregate pass rates from Fall 2018 through Summer 2019 were 70%.
- MAC 1105 / College Algebra: Improved web-based modules as well as adaptive, just-in-time pre-requisite assessments to integrate Intermediate Algebra content throughout College Algebra thereby reducing path to graduation for STEM and business majors. Pass rates increased in College Algebra to all-time-high of 73%.

The core classroom design features active, engaged learning where students utilize the practices of scientists and engineers to learn their content. Thus, soft skills essential for careers are developed simultaneously with their content learning. This also optimizes major selection, as learning through the practices of scientists and engineers allows students to evaluate their interest in their selected discipline so they may make informed decisions about careers and can change majors without incurring excess credits to their degrees or delaying graduation.

Specific objectives include:

- Transform introductory courses for the strategic degrees with a particular focus on the more commonly held critical courses. This will include prioritizing the re-design of the Precalculus through Calculus sequence: Building on the established success of transforming Gateway STEM courses, this objective will improve the

instruction of critical courses taken by the identified strategic majors. This explicitly targets advancing the current pilot interventions reforming Precalculus and Calculus, scaling effective instruction across the complete Calculus sequence. Calculus has a reputation of serving as barrier for future STEM professionals; however, success in pilot Precalculus and Calculus interventions show sufficient promise that a dedicated effort is included in this initiative. Pilot results include improvement in average pass rates by up to 25% in a randomized, controlled study involving 10 sections. Once established, practices and curricular materials will be shared across the State colleges and universities to foster greater efficiencies through shared system resources.

- Implement intervention of designing intentional, curated pathways inclusive of academic and co-curricular offerings, aligned to in-demand skills, to support the growth, relevance, and development of strategic degree areas, which are critical to our Florida economy.
- Develop internship-based opportunities across strategic degree offerings that capitalize and partner with and across the leading industries in Florida.
- Provide funded undergraduate research opportunities across strategic degrees as appropriate to ensure that our students can be competitive in the marketplace upon completion.
- Implement interventions that promote mental health, especially for first generation and millennial students: Student mental health is a concern for those transitioning to a university, especially for first generation, urban and millennial students as they need to navigate a complex educational system efficiently, often while working or supporting a family. Our current initiatives (active learning instruction featuring undergraduate Learning Assistants) foster peer learning communities that support positive mental health; however, much more can be done to improve student acclimatization to the university experience. Thus, this objective will implement interventions that have shown to improve student wellness and timely persistence to degrees. These interventions have been selected to act in concert with the classroom environments promoting mental health, as we know that the stressors on these high-impact educational opportunities and career trajectories plays a critical role in students' ability to complete and succeed. Initial interventions focused on developing contemplative practices in the classroom show positive responses from students. We will investigate which interventions are most effective for our student population, guided by Yeager (2019)'s research on growth mindsets and self-regulation, Walton and Cohen (2007)'s research on belonging and Davidson (2014)'s research on healthy minds. We will prepare faculty, administrators and undergraduate Learning Assistants (LAs) to support mental health and recognize early indicators of concern.
- Classroom Renovation: Existing traditional classrooms will be renovated to facilitate active learning using state of the art facilities. FIU is transitioning to active-learning, technology-driven classrooms to promote student engagement of content during class time and dissuading the use of lecture by faculty. New classrooms are now routinely built as active learning classrooms with access prioritized for faculty utilizing active learning and thus incentivizing the best instructional practices. Newly opened active learning classrooms averaged over 80% utilization by active STEM courses, with the remaining 20% of utilization done by other courses. However, requests for the active learning rooms persistently

outpace availability and thus the need for additional active learning capacity and have included support for these classroom renovations. We include funding for one-time retrofit of at least 10 of our more outdated traditional classrooms that do not have the design or technological infrastructure that is required by state-of-the-art instructional design. Establish faculty “sand box” for developing instructional practices before deploying across large active learning rooms. Creating a stepwise process allows for faculty to become familiar with the curriculum and implement it with fidelity, before introducing additional variables related to class management in larger settings.

- Establish Fellows program: This objective will harness the expertise of faculty that have transformed their courses into highly effective active learning environments and position them as Faculty Fellows to share their expertise with colleagues and accelerate institutional transformation. A pilot program was successfully deployed by the Center for the Advancement of Teaching (CAT) with a small cohort of Faculty Fellows including opportunities for building faculty community and leading faculty professional development initiatives. Faculty communities are known to be an essential tool for fomenting faculty change. This model has the dual objective of developing institutional leaders in innovative instruction while utilizing their expertise to expand the use of active learning practices to new faculty. Fellows will design a data intensive mini-project to evaluate student success in a particular course critical to a strategic degree or focused on the entire discipline. We will provide course buyouts to allow sufficient time for this role, as well as stipends to compensate their efforts.

To achieve these objectives, specific commitments include:

- Create Education Research team through Discipline-based Education Research (DBER) faculty hires for strategic degrees: 10 DBER highly skilled faculty will be supported through this initiative, providing leadership in implementation and measurement of evidence-based instruction and learning technologies. These faculty will serve as leaders of STEM education research to establish a culture of student learning and progression that will drive the 4-year degree completion agenda, and students’ marketability and career creation and placement. They join our current DBER team that consists of top DBER scholars in biology, chemistry, earth science, mathematics, and physics, as well as engineering and computer science education researchers. New hires will target established leaders in their disciplines as well as top junior candidates.
- Provide 200 Learning Assistant Stipends to top FIU students: Undergraduate Learning Assistants (LAs) have been critical catalysts in transformation of STEM courses at FIU, as they facilitate learning with their peers while deepening their own understanding of content and collaboration. LAs improve the success of students in transformed courses, increasing retention and completion. These prestigious scholarships will elevate the LA program, improve success of faculty course transformations, and expand the LA program beyond the STEM disciplines. LAs also experience improved learning as a result of the program, thereby serving to improve Florida’s workforce. Learning Assistants (LAs) are undergraduates who are hired to facilitate small-group interaction in large-enrollment courses. LAs work ~10 hours per week in various aspects of course transformation. This also supports our students who may need to work for supplemental income – they are

employed, while on campus and therefore still able to maintain full time enrollment and timely graduation.

- Award 10 DBER Graduate Fellowships in Strategic Degrees: A prestigious graduate student research fellowship program will be created to develop skills as both future university educators and researchers. These Discipline-based Education Graduate Researchers (DBER) will work with the DBER faculty to implement and provide data on student impact and improved faculty instruction. Eligible students will be required to submit National Science Foundation Graduate Research Fellowship applications to support their continued studies.
- Hire six staff members for program operations: One LA Program Assistant Director will be hired to manage the LA program and prepare faculty to effectively integrate LAs into their active classrooms, working with faculty and undergraduate LAs. Two Faculty Developers to work with CAT, FIU Online and Academic & Student Affairs for courses with expertise in education transformation and in the discipline will be hired to prepare faculty to implement Learning Technologies and Evidence-based Instruction in their classroom. The Developers will provide year-round support and feedback. One Database Analyst will be hired to carry out statistical analyses on the project as well as develop data analytics dashboards specifically for strategic degrees. The project will be managed by a program manager and an administrative assistant to support staff team members, develop and support the industry partnerships as well as LAs and graduate fellows.
- Classroom Renovations: Existing traditional classrooms will be renovated to facilitate active learning in STEM classrooms using state of the art facilities. New classrooms are now routinely built as active learning classrooms with access prioritized for faculty utilizing active learning, thus incentivizing the best instructional practices. The recently opened active learning classroom with 270 seats averaged over 85% by large active STEM courses. This utilization rate is typical of all the active learning classrooms on campus. However, requests for the active learning rooms persistently outpace availability. Further, our hybrid course redesign relies on active learning rooms to be effective, thereby increasing need each year. We include funding for one-time retrofit of ten of our more outdated classrooms that do not have the design and technological infrastructure that is required by state-of-the-art teaching and learning classrooms. These retrofits will include several rooms designed as “sand boxes” for faculty develop and test new innovative instructional practices.

Related Accomplishments

The Initiative builds on the success of multiple projects that have brought significant change to the university and have become integrated into university practices and culture. FIU's STEM interventions began in physics, expanded into multiple STEM disciplines, and are now being led through the STEM Transformation Institute. Evidence of success in the reformed introductory physics courses includes significantly improved conceptual learning, the first reported increase in student attitudes towards physics, and a sustained 40% increase in the passing rate, when compared to traditional courses, realized by a dozen different faculty teaching the course. This has led to a dramatic increase in the number of physics majors and national recognition for FIU's success.

FIU is focused on raising its 4-year graduation rate and as evidenced by our performance funding metrics and achieving the highest ever PBF of 97 points in the state, FIU achieves its goals.

We build our efforts on the foundational success of our Graduation Success Initiative (GSI) and Gateway Project. FIU's GSI has helped raise the six-year graduation rate for First Time in College students (FTICs) by 16 points in its first four years. During the past three years of LBR funding, we have seen a 10.4 percent point improvement in our four-year graduation rate, a 2.4 percent point increase in the second-year retention rate, and a 7 percent point increase in the issuing of bachelor's degrees without excess hours. Of significance has been FIU's improvement in the proportion of Strategic Degrees produces, from 56.2% to 60% over the last three years. Institutional analytics determined that poorly performing gateway courses are a significant barrier in students' path to timely graduation, leading to the Gateway Project.

The first major success in the Gateway Course initiative was the comprehensive transformation of the College Algebra course that included Learning Assistants and innovative technology-based instruction, leading to a sustained 35-40% increase in passing rates for all students. Improvements in the pass rate for the College Algebra course has saved over 3,500 seats between Fall 2012 and Fall 2018 (compared to fall 2010 baseline). These improvements significantly increase efficiency through direct cost savings to our students as well as reducing excess hours and thus improving timely graduation. In AY 2016 – 2017, the legislative investments for course redesign of Finite Mathematics and Social Choice Math, Gateway course taken by non-STEM majors, resulting in consistency in content and expectations across sections and increases in average pass rates (+12% and +16% respectively). With well over 3,000 students enrolled in these three courses each semester, the impact is significant. Looking across our Gateway courses in mathematics, when compared to 2013-14 passing rates, improvements have resulted in more than 8,000 additional successful course completions.

Funding support of prior smaller-scale initiatives has led to a core of interventions, which has begun to lay the foundational framework for STEM at FIU. At the core of both the STEM and Gateway initiatives are interventions that 1) adapt evidence-based instructional practices to the FIU context; 2) require faculty engaging students in meaningful, active learning in the classroom; 3) are initiated by external grant or foundation funding; and 4) engage undergraduates, faculty, and administration as partners in the transformation.

One powerful and cost-effective approach is the undergraduate Learning Assistant (LA) program, which provides undergraduates with the opportunity to experience the reward of teaching, develop skills to engage in the challenges of effective instruction, and deepen their content knowledge. At the same time, they serve a critical role as dedicated and skilled facilitators in the classroom, thus easing the transition for both students and faculty to active learning. FIU hosts the nation's largest LA program, with 318 LAs serving in 130 course sections across 14 STEM departments, impacting over 12,000 student enrollments in Spring 2019 (enrollment includes duplicated headcount as students may have LAs in more than one course). Lessons learned in these initiatives are spreading to other courses, where pilot projects have seen an average increase in passing rates of 18% across 7 courses (two of which increased over 25%), which will translate to improved graduation rates in the coming years. Further, enrollment in one transformed course more than quadrupled

over the past several years, doubling in annual offering as well as enrollment. On-time graduation rates have also increased 16% in four years.

Further practices, curricula, and evidence generated by this initiative will be shared with all SUS and FCS institutions, allowing them to adopt and adapt practices for their use, fostering greater efficiencies through shared system resources. This provides the opportunity to position Florida as the first State in the nation to implement evidence-based instruction and learning technologies throughout the engineering and computer science programs.

Alignment with SUS Strategic Priorities / 2021 FIU University Accountability Plan

The Initiative is very well aligned with the goals of the SUS 2025 System Strategic Plan (including *Improve the quality and relevance of the System's institutions* and *Increase Degree Productivity and Program Efficiency*) as well as the SUS Strategic Priorities in Teaching & Learning; Scholarship, Research & Innovation; and Community & Business Engagement. First, it will increase the number of degrees awarded at FIU, especially in the STEM fields, as well as the quality of those degrees by transforming instructional practices. Second, it will increase research commercialization activities through providing a workforce well-prepared for driving a knowledge economy and triggering start-up companies. Further, the program and classroom transformation and education research outcomes have the potential to lead to commercialization. Third, it directly increases the community and business workforce, as our graduates will be well prepared to be fully employed in their disciplines upon graduation or to seek further educational opportunities.

The initiative immediately addresses the SUS Strategic Priorities, including:

- **Strategic Priorities for a Knowledge Economy: GOAL: Increase the Number of Degrees Awarded in STEM/Health and Other Programs of Strategic Emphasis** *Increase student access and success in degree programs in the STEM/Health fields and other Programs of Strategic Emphasis that respond to existing, evolving, and emerging critical needs and opportunities.* This directly addresses improving both the quantity and quality of all strategic degrees as improvements to foundation courses, such as the calculus sequence, that will benefit critical majors.
- **Strategic Priorities for a Knowledge Economy GOAL: Increase Research Commercialization Activities:** *Increase the number of patents, licenses and start-up companies created as a result of university research.* The initiative develops students' inquiry, collaboration and out-of-the-box thinking skills, thus providing them the opportunity to make authentic and significant contributions to the knowledge economy. Furthermore, improvements throughout the engineering and computer science programs will serve to produce more innovative and fully developed senior research projects increasing the likelihood of successful patents, licenses, and start-ups.
- **Strategic Priorities for a Knowledge Economy: GOAL: Increase Community and Business Workforce** *Increase the percentage of graduates who continue their education or are employed full-time.* The project optimizes the production of our strategic degrees. Our FIU Students, stay and work in Florida at rates that far exceed

other institutions. Our students will become contributing members/leaders of our community and business workforce.

The initiative immediately addresses FIU's 2021 Accountability Plan goals and objectives, including:

- Mission: Provides *high-quality teaching and state-of-the-art-research* for our students and diverse population of South Florida.
- Goal: Aligned to becoming top 50 public university: *FIU will continue to advance the institution's mission to be a top 50 public university by placing laser-like focus on aligning FIU's entire academic culture, resource investments, institutional priorities, and global perspective to achieve unprecedented excellence in higher education.*
- Strategy: Bringing the best educational and research practices is essential in FIU's as a major contributor to our local economy and graduates the future leaders and innovators in those fields.
- Strategy: Developing new paradigms of evidence-based instruction now are essential for the future, as *the demand for jobs is nearly insatiable. The Florida Chamber Foundation Florida 2030 Project estimates that 1.7 million more jobs will be needed in the state within 11 years. In part, the project calls for a renewed focus on talent supply and education to help the state prepare for this growth.*
- Key Initiatives & Investments 1) ***Amplify Learner Success & Institutional Affinity***: Directly impacts FIU's commitment to *student success and is intricately tied to a greater sense of institutional affinity, individual grit, a well-nurtured sense of belonging, and optimism towards the future.* Thus, this initiative drives FIU's first key initiative and is therefore designed to *deliberatively support learners at every phase of their academic journey. FIU is well positioned to shift the higher education paradigm to meet the needs of the rapidly changing world of work by building upon our unique strengths and opportunities. To this end, we will continue to create and implement high-tech and high-touch innovative solutions that accelerate our students' academic and career success. Our focus is to foster 21st century, employment-ready, proud FIU graduates, who are technologically, creatively, and culturally agile. At the same time, we are committed to creating an environment that stimulates lifelong learning and builds synergistic networks, which dynamically and organically connect our students, teachers, researchers, alumni, community partners, and entrepreneurs.*
- Key Initiatives & Investments 2) ***Accelerate Preeminence & Research and Innovation Impact Preeminent Programs***; This initiative directly impacts FIU's second key initiative is designed to *advance our current academic standing by leveraging FIU preeminent and emerging preeminent programs that focus on generating new knowledge and innovative solutions for the betterment of our environment, health, and society. Many of our strategic degrees are represented across this spectrum of programs. This will drive our visibility to solidify FIU as a leading urban public research university. To achieve this, we will strive to attract and retain the most productive faculty, while cultivating leaders and nurturing all students, postdocs, researchers, and staff to excel. During the next three years, we will focus on optimizing interdisciplinary collaboration through our Preeminent*

*and Emerging Preeminent programs to seek large center research grants, and grants that focus on technological innovation, as well as on graduate student training... Our aim is for FIU to be the **catalyst** to foster social innovation and entrepreneurship from conceptualization to commercialization.*

- Key Initiatives & Investments 3) **Assure Responsible Stewardship:** Aligns with optimizing resource management: *consistently practice sound financial management while aligning resources with academic priorities that sustain knowledge production, optimize learning, discovery and creativity, and promote a positive working environment.*

Impact on Academic Programs, Student Enrollments, Student Services

Every student at FIU will benefit from the implementation through new and improved first-year targeted and intentional programming around strategic degree options, awareness, and opportunities; implementation of evidenced-based practices in critical/milestone coursework, curated industry partnership and internship opportunities, and mental health interventions. The culture of teaching and learning will likewise be transformed, toward evidence-based and data-informed improvement. These transformations will reduce individual course failure rates by at least 30% within two years of implementation, leading towards an overall goal of an additional 15% increase in graduation rates. This goal is aligned with the standard of excellence as established by the SUS Performance Funding Metrics. As was the case in physics, we anticipate increases in the number of Engineering and Computer Science majors.

This information and insight will be shared with partner institutions.

II. Return on Investment - *Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on improving retention rates, indicate the current retention rate and the expected increase in the retention rate. Similarly, if the issue focuses on expanding access to academic programs or student services, indicate the current and expected outcomes. University of Distinction proposals should also address the requirements outlined in the separate guidance document.*

The Initiative leverages existing commitments to education transformation and a national climate devoted to classroom education reform. It will increase research capacity and funding opportunities that will lead to increased grant funding, improved student performance, and national recognition. Further, it will stimulate adoption of similar instructional innovation at universities and colleges across the state. The initiative explicitly targets revitalizing targeted and critical programs necessary for the state, preparing faculty to implement innovative instruction in the classrooms, gathering and analyzing classroom data, and disseminating the classroom transformation model for the state. These actions will lead to improved student learning and success in critical courses, which lead to improved retention, graduation rates, and employment.

The intensive Strategic Teaching Academy will provide professional development to at least twenty additional faculty annually in integrating evidence-based instruction, cutting edge assessment, and learning technologies in their classrooms, as well as develop instructional leadership in at least 10 Faculty Fellows. This will directly impact approximately 12,000 student enrollments annually, and they will continue to impact similar student enrollments in later years.

Student mental health/wellness interventions will be expanded in the first semester after initiative launch and impact at least half of the entering STEM students and measures on the impact will be determined over the next two semesters. Within three years, all entering STEM students will have the opportunity to fully benefit from the interventions and wellness-based programs that are implemented across the life cycle of the student.

The model for faculty professional development will be established through research on faculty practices and student impact. It is anticipated that this will lead to the DBER faculty producing at least 80 scholarly products (publications and presentations) annually in the first three years, growing to at least 120 within five years. We also expect all new DBER faculty to attract external funding to the institution within 18 months of hire. All our recent DBER faculty hires attracted external funding within six months to one year of arrival; almost all have already been awarded more than one grant. These include Dr. Monique Ross' awards of \$1.2M, Dr. Alexandra Strong's awards of \$1M, Dr. Trina Fletcher's awards of \$614K, and Dr. Bruk Berhane's awards of \$565K.

The initiative will also drive improved student learning and success in the courses, leading to improved retention and graduation rates. Student learning outcomes are a key driver to sustained transformative instruction (as well as a critical feedback loop element) and will be reported through the scholarly products. Based on prior FIU initiatives and national trends in active learning, we expect a 30 - 40% decrease in failure rates in large enrollment introductory courses within four semesters of implementing evidence-based instruction. For the courses with failure rates of 20 - 40%, this translates to an 8 -16% decrease in failure rate. We expect this to increase an additional 10% within three years and be sustained for at least a decade. We base this on prior work at FIU and active learning literature. At FIU, College Algebra passing rates increased by 25% after evidence-based instruction was introduced across all sections in Fall 2012, then rising to the current 40% increase in average pass rate (compared to the Fall 2010 baseline). We have also seen a 70% decrease in failure rates in our studio-based introductory physics courses, compared to lecture courses. A 2014 Proceedings of the National Academies of Science publication found an average 35.5% decrease in reported failure rates when comparing active learning in all STEM disciplines to lecture courses (www.pnas.org/cgi/doi/10.1073/pnas.1319030111).

We will transform the education experience for FIU's strategic degree portfolio, over 80% of which are from traditionally underrepresented minority groups, and 23% of which are first generation students.

Ultimately, this initiative drives economic development by substantially improving learning and skill development for our students, as well as enhancing efficiency in degree attainment. Our graduates will be well prepared to tackle existing, evolving, and emerging critical needs and opportunities in the global society and technology driven marketplace.

They will be the innovators, entrepreneurs, and start-up leaders of the future. Their reputation for solving global challenges will attract the top technology companies to South Florida. Thus, FIU will be *the* reliable catalyst for South Florida's highly skilled and diverse engineering and computer science workforce.

III. Facilities *(If this issue requires an expansion or construction of a facility, please complete the following table.):*

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.	Active Learning Room Renovations	2021/22	\$1,500,000	
2.	Faculty "Sand Box" Classroom	2021/22	\$300,000	

This page intentionally left blank

2022-2023 Legislative Budget Request
Education and General
Position and Fiscal Summary
Operating Budget Form II
(to be completed for each issue)

University: Florida International University

Issue Title: FIU Strategic Degree
Implementation Plan

	RECURRING	NON- RECURRING	TOTAL
<hr/>			
<u>Positions</u>			
Faculty	0.00	0.00	0.00
Other (A&P/USPS)	0.00	1.00	1.00
	-----	-----	-----
Total	0.00	1.00	1.00
	=====	=====	=====
Salaries and Benefits	\$0	\$150,000	\$150,000
Other Personal Services	\$0	\$2,809,000	\$2,809,000
Expenses	\$0	\$91,188	\$91,188
Operating Capital Outlay	\$0	\$1,800,000	\$1,800,000
Electronic Data Processing	\$0	\$0	\$0
Financial Aid	\$0	\$0	\$0
Special Category (Specific)	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$0	\$4,850,188	\$4,850,188
	=====	=====	=====

This page intentionally left blank

THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
Academic Policy and Student Affairs Committee
September 14, 2021

Subject: Textbook and Instructional Materials Affordability Annual Report

Proposed Committee Action:

Recommend to The Florida International University Board of Trustees approval of the Textbook and Instructional Materials Affordability Annual Report.

Background Information:

Effective July 1, 2016, Florida House Bill 7019, Education Access and Affordability, requires the Board of Governors and the State Board of Education to annually identify strategies to promote college affordability. Under this bill, all State University System institutions are required to submit a Textbook and Instructional Materials Affordability Report that describes the institutional processes of selecting, adopting and posting course materials. In addition, the report must include an overview of institutional initiatives and policies designed to reduce the costs of course materials and promote college affordability.

Pursuant to Florida Board of Governors Regulation 8.003, Textbook and Instructional Materials Affordability, each university board of trustees shall provide a report, by September 30 of each year, to the Chancellor of the State University System, in a format determined by the Chancellor.

Supporting Documentation: Textbook and Instructional Materials Affordability Annual Report

Facilitator/Presenter: Elizabeth M. Bejar

This page intentionally left blank

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 30, 2021.
3. If there are questions, contact Lynn Nelson, Director of Student Affairs - lynn.nelson@flbog.edu
4. Include the university contact name and email for the staff who completed the report below:

University Contact Name and Email: [Gitta Montoto \(gmontoto@fiu.edu\)](mailto:Gitta.Montoto@fiu.edu) or [Paden Goldsmith \(pgoldsmi@fiu.edu\)](mailto:Paden.Goldsmith@fiu.edu)

This page intentionally left blank

**Textbook and Instructional Materials Affordability Annual Report
Fall 2020 and Spring 2021**

University Submitting Report:
Florida International University

Date Approved by the University Board of Trustees:
14-Sep-21

Signature of Chair, University Board of Trustees:

Dean Colson

Signature of Vice President for Academic Affairs:

Kenneth G. Furton

Signature of President:

Mark B. Rosenberg

This page intentionally left blank

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.*

Time	General Education Courses with High Enrollment		Total Number of Courses (n =)	Selection Process	If "other," describe
Term	Course Prefix & Number	Course Title			
Fall 2020	MAC 1105	College Algebra	25	Individual Faculty	
Fall 2020	ENC 1101	Writing and Rhetoric I	70	Individual Faculty	
Fall 2020	ENC 1102	Writing and Rhetoric II	69	Individual Faculty	
Fall 2020	SLS 1501	First Year Exper	132	Combination of the Above	
Fall 2020	CHM 1045	Gen Chemistry I	11	Individual Faculty	
Fall 2020	CHM 1045L	Gen Chem Lab I	66	Combination of the Above	
Fall 2020	BSC 2010L	Gen Biology Lab I	59	Individual Faculty	
Fall 2020	BSC 2010	General Biology I	7	Individual Faculty	
Fall 2020	SPC 2608	Public Speaking	35	Individual Faculty	
Fall 2020	AMH 2020	Amer Hist Since 1877	24	Individual Faculty	
Fall 2020	ECO 2013	Principles Macroeco	15	Individual Faculty	
Fall 2020	PHY 2048L	General Phys Lab I	29	Combination of the Above	
Fall 2020	LIT 1000	Intro to Literature	20	Individual Faculty	
Fall 2020	ECO 2023	Principles Microeco	14	Individual Faculty	
Spring 2021	ENC 1102	Writing and Rhetoric II	87	Individual Faculty	
Spring 2021	AMH 2020	Amer Hist Since 1877	31	Individual Faculty	
Spring 2021	MAC 1105	College Algebra	22	Individual Faculty	
Spring 2021	PHY 2049L	General Phys Lab II	30	Combination of the Above	
Spring 2021	ECO 2023	Principles Microeco	17	Individual Faculty	
Spring 2021	BSC 2011L	Gen Biology Lab II	41	Individual Faculty	
Spring 2021	MAC 1147	PreCal Alg and Trig	23	Individual Faculty	
Spring 2021	BSC 2011	General Biology II	7	Combination of the Above	
Spring 2021	BSC 2010L	Gen Biology Lab I	42	Individual Faculty	
Spring 2021	SPC 2608	Public Speaking	26	Individual Faculty	
Spring 2021	ECO 2013	Principles Macroeco	13	Individual Faculty	
Spring 2021	BSC 2010	General Biology I	6	Individual Faculty	
Spring 2021	STA 2122	Stat for Behav Scien I	15	Individual Faculty	
Spring 2021	CHM 1045	Gen Chemistry I	10	Combination of the Above	

This page intentionally left blank

Courses with No Cost for Textbooks/Instructional Materials

Report all institution's course title(s) and number of section(s) ($n=$) 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 2020	
Total Number of Course Sections Offered	n = 7,823
Course Title(s) with No Cost to the Student for Course Materials	Number of Section(s)
SLS 1501 First Year Exper	131
GEB 3003 Career Management	46
EDG 7980 Ed.D. Dissertation	38
PSY 4940 Research Internship	31
PSY 7980 Ph.D. Dissertation	29
BSC 6913 Student Research Lab	28
BSC 7980 Ph.D. Dissertation	25
BSC 2011L Gen Biology Lab II	24
CHM 7910 Dissertation Researc	23
IDH 3034 Honors Seminar V	22
EVR 1001L Intro Environment Sci Lab	20
EEL 6905 Individual Work	20
BSC 4931 Senior Seminar	19
PSY 5918 Supervised Research	18
CHM 4910 Under Res Chem	18
CHM 7980 PH.D. Dissertation	18
CGN 7980 Ph.D. Dissertation	18
EEL 7980 Ph.D. Dissertation	17
CIS 7910 Graduate Research	17
CIS 7980 Ph.D. Dissertation	17
PCB 3063L Genetics Lab	16
BSC 3941 Biological Science Intern	16
AST 1002L Descriptive Astronomy Lab	16
NUR 4455L Childbearing NUR Cl	15
SDS 4340 Career Development	14
SLS 1510 Strategies for Success	14
HIS 7980 PH.D. Dissertation	14
PHC 7980 Dissertation	13
MAN 7980 Ph.D. Dissertation	13
EEL 6931 Special Topics	13
BSC 2010L Gen Biology Lab I	13
AMH 2020 Amer Hist Since 1877	13
PHY 6939 Graduate Research	12
PHY 7981 PH.D. Dissertation	12
MMC 3932 Intense Pods	12
EEL 4921 Senior Design II	12
EEL 7910 Advanced Research	12
NGR 7940 DNP Project I	11
SPA 6930 Master's Project	11
MAR 6816 Corp Simulation	11
MCB 3020L General Micro Lab	11
MAN 6245 Org Behavior	11
INR 7980 PH. D. Dissertation	11
MUL 1010 Music Lit/Appreciation	11
MAR 4354 Marketing Yourself	11
PSY 4931 Senior Seminar	10
MCB 2000L Intro Microbio Lab	10
LEI 4940 Internship I	10
LEI 3723L Rec Therapy Fac Techs Lab	10
HUN 2000L Fnd Nutr Sci Lab	10
EVR 6970 Supervised Research	10
EML 6908 Ind Studies	10
BME 7980 Ph.D. Dissertation	10
PCB 3702L Interm Human Phy Lab	9
PCB 4023L Cell Biology Lab	9
NGR 7942 DNP Project III	9
SPN 7980 Ph.D. Dissertation	9

MAR 6805 Mkg Mgt In Glob Env	9
MAR 3023 Introduction to Marketing	9
FSS 3230 Intro Comm Food Serv	9
EML 4911 UG Research Exp	9
CCJ 7980 Ph.D. Dissertation	9
CGN 6910 Supervised Research	9
BME 6910 Supervised Research	9
SYG 2000 Intro Sociology	8
NUR 3535L Psychosocial Nur Cl	8
PCB 3043L Ecology Lab	8
QMB 6616 Process & Oper Analysis	8
PAD 7980 PH.D. Dissertation	8
PHI 2600 Intro Ethics	8
PHY 4905 Independent Study	8
ZOO 3731L Human Anatomy Demo	8
EDE 4943 Student Teaching	8
FIN 3414 Intermed Fin Mgmt	8
GLY 7980 Ph.D. Dissertation	8
EML 4930 Special Topics/Proj	8
ENC 3213 Prof and Tech Writing	8
CHS 3501L Surv For Sci Lab	8
ANG 7980 Ph.D. Dissertation	8
CLP 6943 Adv Clinical Prac	8
POS 7980 PH.D. Dissertation	7
PHI 2010 Intro to Philosophy	7
LIT 1000 Intro to Literature	7
MAR 6205 Omnichannel MKTG DIS STM	7
MAN 4720 Strategic Management	7
EML 7979 Ph.D. Dissertation	7
HFT 4294 Sr. Sem. Hosp. Mgmt.	7
IDS 4890 IDS Capstone	7
ECO 7980 Ph.D. Dissertation	7
IDH 4905 Honors Independ Stud	7
EIN 5226 Tqm For Engineers	7
ARC 6910 Graduate Seminar	7
CHM 3120L Intr Analyt Chm Lab	7
CHM 1033L Survey Chem Lab	7
ARC 5744L Des Hist XIX to XXI Lab	7
CHM 4304L Biol Chem I Lab	7
ARC 5329 Arch Design 5	7
PSY 4941 Psychology Internship	6
SOW 7980 Ph.D. Dissertation	6
NUR 4945 Senior Practicum	6
NGR 6601L Adv Fam Nsg Prac I	6
PPE 3003 Thry Of Personality	6
PHT 5805 Clinical Intern I	6
URS 7926 Super Readings	6
PHT 6817 Clinical Intern II	6
PHT 6970 DPT Project	6
PSY 5908 Directed Ind Study	6
MUS 4910 Research	6
NGR 6201 Adv Ad Geron Nsg Pr I	6
MAR 4941 Marketing Internship	6
MUS 5906 Master's Recital	6
EGS 5620 Enterprise Sys Conf	6
EML 6910 Supervised Research	6
HUM 1020 Intro to Humanities	6
GLY 6910 Supervised Research	6
FIN 4303 Financial Mkts & Ins	6
EEL 3110L Circuits Lab	6
EVR 7980 Ph.D. Dissertation	6
ART 2300 Beginning Drawing	6
ARC 5343 Arch Design 8	6
ASN 5932 Special Topics	6
BME 6905 Ind Studies	6
ACG 6175 Fin Rptg And Anal	6
CGN 6905 Dir Ind Study	6

BSC 4990L Coronavirus Lab	6
THE 4916 Research	5
PHC 6914L Curr. Top. EHS Lab	5
NGR 6503 Adv Pmh Nsg Prac I	5
REE 6306 Corporate Real Estate	5
SMT 3931 LA Seminar	5
RLG 6971 Thesis	5
SPN 1130 Spanish I	5
RTV 3531 Multimedia Prod	5
QMB 4680 Bus Stats & Analysis II	5
PET 4946 Sport and Fitness Internship	5
NGR 7980 Dissertation I	5
ISM 6208 Data Warehousing	5
MUN 4714 Jazz Combo Class	5
ISM 7980 Ph.D. Dissertation	5
MAR 4733 Digital Marketing	5
HFT 1000 Intro to Hosp and Tour	5
EEL 6971 Thesis	5
DIE 7980 Ph.D. Dissertation	5
EVR 1001 Intro Environmental Scien	5
EDG 6943 Supvd Fld Exp	5
ECO 2023 Principles Microeco	5
ECO 2013 Principles Macroeco	5
ESI 5010 Forecasting and Dmdn Mgt	5
ARC 1131 Design Graphics 1	5
ART 5910 Research	5
BME 4050L BME Lab I	5
ARC 6356 Architectural Design 10	5
ARC 2303 Design Studio 3	5
CHM 3410L Phys Chm Lab I	5
AST 2003L Solar Sys Astr Lab	5
ARC 1301 Design Studio 1	5
WST 4905 Independent Study	4
PSY 4914 Honors Research Proj	4
SPC 3210 Communication Thry	4
PCB 2099L Fnd. Human Phys. Lab	4
SYD 7903 Directed Readings	4
NGR 6434L Anesth Nsg Clin Res IV	4
PHC 7982 PH Pre Dissertation Res	4
POS 5909 Independent Study	4
SPC 3602 Adv Public Speaking	4
NGR 6941L Anesth Nsg Sim Pract I	4
PHC 6945 Practicum in Pub Health	4
SMT 2661 STEP 1 Teach Math and Sci	4
PCB 3703L Hum Phys Lab I	4
NGR 6437L Anesth Nsg Clin Res VII	4
TPA 2290L Tech Theatre Lab I	4
SOW 7916 Supervised Research	4
POS 2041 American Government	4
REL 3308 Studies In World Rel	4
LEI 4941 Internship II Lei	4
MAR 4503 Consumer Behavior	4
MUN 1460 Chamber Music	4
ISM 4420 Business Analytics	4
INR 5906 Independent Study	4
MAN 6317 Critical Thinking	4
MUN 1100L FIU Marching Band	4
MAN 6657 Contextual Intel in IB	4
MUN 2711 Jazz Combo Class	4
ISM 6575 Security Risk Magt	4
MUN 5465 Chamber Music	4
MAN 7916 Doc Res In Bus Admin	4
INR 7910 Pre-Diss Research	4
MAR 4804 Marketing Strategy	4
ISM 4402 Bus Intel Reporting	4
IDS 3336 Artistic Expression	4
GEB 6941 Grad Bus Internship	4

FOS 3021L Fund. Food Lab	4
EDH 6905 Dir Stud Higher Ed	4
HFT 3941 Intern Hsptly Mgmt	4
EEE 3303L Electronics I Lab	4
EXP 3523 Memory&Mem Improvmt	4
DEP 3305 Psy Of Adolescence	4
GEB 2011 Intro To Business	4
EGN 1110 Engineering Drawing	4
HFT 3503 Hosptly Mktg Mgmt	4
EML 3301L Instrumentation Lab	4
HIS 5908 Independent Studies	4
ENC 3249 Prof Tech Writing Comp	4
ENV 3001L Envir Lab I	4
FIN 7980 Ph.D. Dissertation	4
CHM 6940 Supervised Teaching	4
COM 1004 Intro to Comm Arts	4
ART 2330 Begin Figure Drawing	4
ANG 7964 Doctoral Exam Preparation	4
BCN 5949 Grad CM Internship	4
CCJ 7960 Comprehensive Exam	4
ARC 5340 Arch Design 7	4
CEN 5011 Adv Software Eng	4
ARC 5554L Structures 2 Lab	4
ART 1201 2d Design	4
COM 4958 Campaigns	4
BCH 3033L Gen.Biochemistry	4
ADV 4323 Branding and Social Media	4
TPA 2292L Tech Theatre Lab III	3
SLS 3407 Major and Career Exploration	3
PAD 6907 Independent Study In	3
ZOO 3753L Histology Lab	3
PSB 3002 Intro Bio Psy	3
PHC 6930 Integrative Sem Pub Hlth	3
SOP 4731 Global Psychology	3
SPA 6971 Master's Thesis	3
PHI 4910 Independent Research	3
SCE 4944 Student Teaching	3
REE 6327 Global RE Capital Markets	3
NUR 3066 Hlth Assess and Promo Nsg	3
TPA 2291L Tech Theatre Lab II	3
SLS 1402 Discover Your Major	3
TPP 2100 Intro To Acting	3
SPN 4520 Latin Am Culture	3
VIC 3400 Vis Design Global Media	3
RED 4325 Subj Area Reading	3
SYA 7980 Ph.D. Dissertation	3
PSY 4916 Indep Research	3
MAN 4600 International Mgmt	3
MVK 2321 Prin App Piano	3
MAR 4712 Health and Fitness Marketing	3
LAW 6936 Seminars	3
MAN 3100 Happiness at Work	3
MAR 6722 E-Marketing	3
MUN 3463 Chamber Music	3
MAN 6636 Glob Geopol & Pol Econ	3
ISM 6021 Mgmt Information Systems	3
MAR 6936 Special Topics Mktg	3
INR 4943 Intern Inr Affairs	3
MAR 6944 Marketing Internship	3
INR 6967 Comps Prep	3
MAR 7980 Ph.D. Dissertation	3
MAN 4602 Intl Business	3
MAT 7908 Independent Study	3
MVV 3331 Prin Applied Voice	3
LAW 7946 Advanced Externship Placement	3
MUN 5716 Jazz Combo Class	3
MAN 6679 Masters Proj In Ib	3

MAN 6157 Wellness Mgmt	3
MHS 6910 Dir Stud Coun Sch Ps	3
ISM 6326 Info Security & Compliance	3
MMC 3003 Journalism + Media Orient	3
MAR 4674 Marketing Analytics	3
HFT 1070 Pathway I	3
EIN 6940 ISE Internship	3
EGN 7918 Graduate Research	3
EDF 6608 Soc Phil Hist Found	3
EEC 4943 Student Teaching	3
DIE 6906 Readings Dietet/Nutr	3
HFT 3263 Restaurant Mgmt	3
ENV 4930 Special Topics Env	3
HFT 4802 Catering Mgmt	3
EEL 4920 Senior Design I	3
HMG 6296 Strat Mgmt Hosp/Tour	3
FIN 6246 Financial Mkts & Ins	3
EML 6971 Masters Thesis	3
IND 5485 Adv CDs	3
HFT 2441 Hospitality Info Tech	3
FOL 5906 Independent Study	3
EEC 3403 Sp Needs Ch & Fam	3
EEL 5285 Renewable Energy Utilization	3
HFT 4323 Hosp Facil Environ System	3
ECO 7925 Adv Workshop	3
HFT 4853 Foodservice Trends	3
FSS 4234 Adv Food Prod	3
HMG 6280 Global Issues Hosp & Tour	3
GEA 2000 Wrld Regional Geogra	3
HMG 6697 Hsptly Law Seminar	3
EDH 7980 Ph.D. Dissertation	3
IND 5454L Adv CDs Lab	3
EGM 3520L Materials Testing	3
GEO 7980 Ph.D. Dissertation	3
EUH 2030 West Civ: Mod/Eur	3
ART 2750 Beginning Ceramics	3
COT 5520 Computational Geometry	3
CIS 5900 Independent Study	3
CGN 6939 Graduate Seminar	3
ACG 7980 Ph.D. Dissertation	3
ART 4910 Research	3
ARH 4970 Art History Thesis	3
CGS 1920 Intro to Computing	3
CEG 4011L Geotechnical Test La	3
BCN 5774 Topics In Int Const	3
COM 4900 Dir Ind Stud in Comm Arts	3
CHM 1045L Gen Chem Lab I	3
ART 5938 Art Pedagogy	3
ARC 5935 Special Topics	3
ARC 6906 Independent Study	3
COP 4555 Prin Of Prog Lang	3
CIS 5208 Soc Econ Pol Asp Cyber	3
BCN 6971 Thesis	3
ARC 5361 Integr Compreh Design	3
CHM 4130L Instr Analysis Lab	3
CLP 4314 Psych Health & Ill	3
ART 1203 3d Design	3
BSC 4915 Honors Research	3
CHM 4611L Adv Inorg Chem Lab	3
COM 4940 Internship in Comm Arts	3
CWR 3201L Fluid Mechanics Lab	3
ART 3820 Research & Development	3
CHM 4930 Senior Seminar	3
CHM 3400L Fund.Phys.Chm.Lab	3
BSC 2921 QBIC Journal Club I	3
SYP 3456 Societies in World	2
SPN 4930 Special Topics Ling	2

WST 5905 Independent Study	2
PHC 6003 Chronic Dis Epi	2
SYA 7941 Field Research	2
PSY 5939 Spec Topics In Psy	2
TPP 2112 Acting III	2
PHC 6148 Strategic Planning HCOs	2
SPN 2233 Intermed Read Span	2
PUR 4940 BOLD Agency	2
SPW 3130 Span Am Lit	2
PUR 6956 Prof. Project	2
PET 4929 Senior Seminar Pe	2
PHC 6155 Health Policy Analysis	2
PGY 2401 Beginning Photography	2
PHC 6374 Env Disasters and Hlth	2
PGY 3822 Int Digital Photography	2
PAD 3800 Managing Global Cities	2
PHY 6935 Grad Research Sem	2
PAD 4934 Integrative Sem Public Po	2
SPN 3401 Adv Spn Conver	2
REE 4303 Real Estate Invest	2
PCB 4717 Topics in Physiol/Biochem	2
REE 6209 Real Estate Finance	2
STA 6971 Thesis Research	2
PAD 6056 Practice Pub Mgmt	2
PET 3310 Kinesiology	2
NGR 7982 Candidacy Examination	2
SYG 3002 Basic Ideas Of Soc	2
REE 6935 Sem Intl Real Estate	2
PAD 3003 Intro Public Policy Serv	2
PAD 6946 Pad Internship	2
TPA 4297 Adv Tech Proj II	2
RLG 5937 Special Topics	2
TSL 5371 Spec Methods Tesol	2
NUR 3029L Foundations Nsg Pract Lab	2
WST 3641 LGBT and Beyond	2
NUR 4636 Community Nursing	2
PGY 4823 Adv Digital Photo I	2
RTV 4350 Newscast Production	2
PHY 6936 Advanced Topics	2
NGR 6703 APN Role Developement	2
SPN 2340 Interim Sp Herit Spks	2
PHI 4945 Philosophy Internship	2
OTH 6972 MS Project Dev	2
PHT 5244 Therapeutic Exercise	2
SPN 5908 Independent Study	2
PHT 5505 P.T. Wellness	2
SPS 6678 Sup Fld Exp Sch Psy	2
OCB 1930 Marine Biology at FIU	2
SPW 3820 Peninsular Span Lit	2
PHT 6163L Neuro Dx & Mgt I Lab	2
SYA 3300 Research Methods	2
SMT 2044 STEP 1&2 Lesson Math and Sci	2
SYA 7967 Prep Doctoral Exam	2
PHT 6547 Case Mgmt Pt	2
SYD 3804 Sociology Of Gender	2
PHT 6625 Ad Pt Clin Res Meth	2
POS 7910 Pre-Dis Research	2
PCB 3702 Interim Human Physiol	2
SYG 6932 Disaster Topics	2
SOW 6533 Field Practicum II	2
THE 3940 Internship Experience	2
SOW 6914 Independent Research	2
PGY 2110 Beginning Color Photo	2
OCE 3014L Oceanography Lab	2
PGY 2800 Beg Digital Photography	2
PHY 2048L General Phys Lab I	2
PGY 3153 Intermediate Color Photo	2

SPA 5035 Disorders Hg and Aud	2
TSL 5245 Dev Esl Lang/Litrcy	2
SPA 5502 Clin Prac Int	2
PGY 3410 Int. Photography	2
SPA 6505 Adv Clin Prac	2
WST 3015 Intro Global Gender	2
PHY 3802L Intermed Phys Lab	2
PGY 4412 Advanced Photography	2
OTH 5846 Level II Fieldwork II	2
ZOO 3205 Invert Zoology	2
PHY 5936 Spec Topic Resarch	2
SPC 3301 Interpersonal Comm	2
NGR 6301 Adv Cld Hlth Nsg Pr	2
MVS 2421 Major Applied Violin	2
ISM 6205 Database Management	2
ISM 6930 Spec Top In Mis	2
MAR 6880 Social Media Marketing	2
MAR 6506 Consumer Behavior	2
LAA 5653 LSCP ARCH Grad Design 1	2
MVV 3431 Major Applied Voice	2
LEI 5907 Dir Stud Rec Man	2
LBS 5488 Org Conflict & Dispute Res	2
MAN 6974 Master's Project	2
MAN 6336 Reward Sys Mgmt	2
MAN 7718 Analysis Of Corp Pol	2
MVK 3331 Prin App Piano	2
LAA 6936 Special Topics	2
MVV 2421 Major Applied Voice	2
MAE 4310 Teach Elem Math	2
MVW 2422 Major Applied Oboe	2
LAH 2020 Latin American Civ	2
LAW 7959 Mediation Comp	2
NGR 5064 Diag & Therap In Anp	2
MAR 4860 Customer Relationship Mgmt	2
NGR 6002 Adv. Health Assessment	2
MUS 3905 Directed Study	2
MMC 5655 Mass Communication and Environ	2
MUS 5905 Directed Study	2
LAS 5907 Independent Study	2
MAN 6606 Fund of IB	2
NGR 6201 Adv Adult Geron Nsg I	2
MVS 1411 Major Applied Violin	2
INR 4603 Theories Intn'L Rel	2
MVS 5545 Orch Audition Rep	2
MUH 2370 Hist The Beatles	2
ISS 6266 Democracy Human Rights	2
ISM 4210 Database Applications	2
MVV 3970L Junior Rec Voice	2
MAR 4613 Marketing Research I	2
INR 6975 Thesis	2
ISM 6156 Enterprise Info Sys	2
MAR 4403 Sales Management	2
MMC 6951 Pro Project II	2
EMA 3702L Mech & Mat Sci Lab	2
EGN 1002 Engineering Orient	2
DIE 3244L Med Nutr Ther Lab	2
EEL 4746L Microcomputers I Lab	2
DIG 4293 Multimedia Production 2	2
ENC 1930 Essay Writing	2
HSA 3412 Cultural Competency in HSC	2
EDG 7226 Advanced Research Teach	2
GLY 1101L History Of Life Lab	2
ENC 3371 Rhetorical Theory/Practice	2
HFT 3453 Operations Control	2
ENC 3465 Legal Writing	2
HFT 4413 Hosp Analytics & Rev Mgt	2
ENC 4331 Community Writing Course	2

HMG 6446 Hosp & Tech Tech Innov	2
ENC 4930 Special Topics Comp	2
IDH 3999 HONORS Internship	2
ENG 4949 Co-Op Ed In Eng	2
GEO 7964 Doctoral Exam Preparation	2
ENG 5907 Independent Study	2
EDP 4274 Soc Emotional Devp	2
ENT 1000 Intro to Entrepreneurship	2
HFT 3202 Fund Mgmt In Hspty	2
DIE 6907 Indiv Study Diet/Nut	2
HFT 3894 Global Food and Culture	2
ENV 4005L ENV Lab II	2
HFT 4292 Entrepreneur in H & T	2
ENV 4401 Water Supply Engrg	2
EIN 6133 Enterprise Eng	2
EEL 5270 Elec Trans In Power	2
EME 2040 Intro Ed Tech	2
ENV 4960 Environmental Eng Seminar	2
EML 3126L Transp Pheno Lab	2
IND 6257 Grad 3	2
HSA 6977 Masters Research Pro	2
IND 6259 Grad 5	2
EEL 4709 Computer Design	2
INR 3045 Refugees & Migrants	2
GEB 7918 Philosophy Appl Research	2
EVR 6971 Master's Thesis	2
EEX 4861 Student Teaching	2
EDF 1005 Intro To Education	2
GLY 5888 Coastal Hazards Mitigation	2
FES 6857 Vulnerb Analy Hazard Mitig	2
HFT 2220 Human Resources for Hosp	2
FIN 4502 Securities Analysis	2
HFT 3072 PATHWAY II	2
FIN 4604 Intl Fin Mgmt	2
EEL 3370 C++ Prog Emb Sys	2
FIN 4663 Global Priv Banking	2
EEL 3712 Logic Design I	2
FIN 4941 Fin Internship	2
HFT 3930 Intensive Pod in Hosp. In.	2
EEL 5813 Neural Networks	2
HFT 4240 Mng Service Org	2
EEL 5820 Image Processing	2
EIN 5346 Logistics Eng	2
EEL 6020 Num Anal Elect Dev	2
HFT 4464 Fin Anal Hosp Indust	2
EEL 6615 Mod Con Sys and IoT Apps	2
EEL 4213L Energy Convrg Lab	2
EEL 6681 Fuzzy System Design	2
HMG 6257 Industry Resrch Analysis	2
EEL 6787 Network Security	2
EML 2032 Programming for ME	2
DIE 6915 Supervised Research	2
HMG 6476 Feas Study Hosp Indu	2
EDG 3321 Instructional Decisions	2
HMG 6946 Graduate Internship	2
DIE 4296 Spe Problm Gen Diete	2
HSA 6905 Dir Study Health Admin	2
DIG 3110 Web Production	2
EDA 7980 Ed.D. Dissertation	2
GEB 7365 Intl Bus Theory and Pract	2
IDS 3333 Diversity of Meaning	2
GEB 7911 Qual Res Methods	2
EML 4140 Heat Transfer	2
GEB 7912 Experi and Survey Design	2
DIE 3310 Dietet Communt Hlth	2
GEB 7915 Adv Qual Research Mthds	2
IND 6616 Theory I	2

EVR 1017 Global Env & Soc	2
EVR 4211L Water Resources Lab	2
EVR 5935 Special Topics	2
COP 3337 Programming II	2
CIS 6970 Thesis	2
ART 2602 Digital Imaging	2
AGG 4941 Agriculture Internship	2
CNT 6144 Adv IoT Analytics & Cloud	2
CAP 5602 Intro To Ai	2
CHM 6910 Grad Research	2
CAP 5610 Machine Learning	2
BOT 4601L Gen Plant Ecol Lab	2
CCJ 2020 Criminal Justice	2
CRW 5940 Adv Ind Study Crw	2
CCJ 4700 Research Methods	2
ARC 5612 Envir Systems in Arch 1	2
CCJ 6915 Supervised Research	2
COP 5949 Coop Computer Sci	2
AMH 2010 Am.History:1607-1850	2
ART 2500 Beginning Painting	2
ADE 7980 Ed.D. Dissertation	2
ART 2608 Digital Media	2
ARC 2701 Des Hist Ant To Ma	2
CIS 5372 Fund of Computer Security	2
CEN 4010 Software Eng I	2
CPO 4057 Political Vio & Revo	2
ARC 5205 Adv Des Theories	2
CLP 6945 Psy Clin Practicum	2
CGN 4802 C E Sr Design Proj	2
COM 3230 Crisis Comm	2
CGN 4930 Spec Topics Civ Eng	2
ART 4312 Advanced Drawing	2
CGN 4980 Civil Engr Seminar	2
COP 4722 Survey Database Sys	2
CGN 5930 Sp Top In Civil Eng	2
BSC 6926 Workshop Biology	2
AMH 2041 Origins Amer Civ	2
CHM 6935 Graduate Seminar	2
BCN 3730 Construction Safety	2
CHM 6970 Thesis Research	2
CGN 6916 Engineering Project	2
BME 6970 Master's Thesis	2
BCN 5618 Fund Const Est	2
CIS 3900 Independent Study	2
CGN 6971 Thesis	2
CIS 5370 Principles of Cybersec	2
BCN 5626 Const Cost Ana & Con	2
ANT 3451 Ant Race/Ethnicity	2
AMH 2042 Mod Amer Civ	2
ART 3310 Intermediate Drawing	2
CGS 3095 Technology in the Global Arena	2
CJE 3610 Crime Scene Investigation	2
CHM 1020L Chem & Society Lab	2
ART 3402 Interm Printmaking	2
BCN 5784 Const Info Sys	2
CNT 4403 Computer Security	2
BCN 5906 Special Topics	2
BSC 4914 Student Research Lab	2
ADE 6906 Dir Stud Ade/Hrd	2
COM 3940 Internship Experience	2
BCN 6795 Automation in Const	2
BSC 4925 QBIC Cell Bio Journal Club	2
AFA 6920 AADS Graduate Colloq	2
COM 6318 Research Methods	2
BME 1008 Intro to Biomed Eng	2
ART 4403 Advanced Printmaking	2
ARC 5554 Structures 2	2

COP 4813 Web Applicatn Prog	2
ART 2400 Begin Printmaking	2
ARC 5744 Des Hist XIX to XXI	2
ACG 2021 ACC Decisions	2
BME 6565 Quant Micro Vis	2
BSC 3924 QBIC Gene Journal Club	2
CYP 3003 Intro Commun Psy	2
NGR 6601 Adv Fam Hlth Nsg I	1
POS 3258 Pol on Film	1
SYA 4352 GIS and Social Research	1
PSY 3024 Psych Career Development	1
PET 6944 Sup Field Exp	1
PSY 4900 Independent Reading	1
SPW 7910 Pre-Dis Research	1
PAD 4046 Values Ethics Morali	1
PCB 4932 Topics in Ecology	1
PAD 4223 Pub Sec Budgtng	1
URS 7644 Man Pub Fin Resc	1
PSY 4930 Adv Special Topics Psy	1
SPN 3343 Adv Spn Herit Spks	1
PAD 4712 It & E-Gov For Publc	1
SPT 4803 Prac Legal Transl	1
PAD 4905 Indep Sty In Pub Adm	1
PHY 3018 Physics Research Methods	1
NUR 4686L Integ Nsg Care II	1
PCB 4674 Evolution	1
PSY 5246 Mult Var Analysis Ps	1
PCB 5405 Biochemical Ecology	1
PAD 4940 Internship	1
TRA 4214 Logistics Strat	1
PGY 4155 Color Photography IV	1
POW 4701 Masterwks Brazil Lit	1
PSY 5938 CurrTopicsNeurosci	1
OCB 4070 Coastal Conservation	1
PAD 5934 Contemp Issues Pad	1
SPN 3440 Spn Business Comp	1
PGY 4611 Digital Photo and Social Media	1
NGR 7892L Health Policy	1
PUR 1951 PRAAC Orientation	1
PHY 1033 Physics Pathways	1
PUR 3000 Principles Of P. R.	1
SSE 4384 Spec Tch Lab Soc Stu	1
PUR 4101 Digital Editing and Design	1
PHY 3106 Modern Physics	1
PAD 6053 Pol Soc Econ Pub Adm	1
SYA 6452 Topics GIS and Soc Rsch	1
PUR 6607 Global Strategic Communic	1
NGR 6460 Pharm Anes I	1
PGY 5425 Photography	1
TCN 4940 Senior Project	1
QMB 3200 Bus Stats & Analysis I	1
PCB 5423 Adv Ecol:Popul/Comm	1
PGY 5530 Color Photography	1
POS 4941 Legis Internship	1
QMB 6357 Business Statistical Anal	1
TSL 6908 Field Component	1
PHC 4250 Crisis Leadership	1
WOH 3424 History of Global Health	1
QMB 7910 Quant Res Methods	1
WST 5507 Feminist Theory	1
RCS 6625 Ser Del & Case Man	1
PHM 4125 Phil of Gender & Race	1
RCS 6801 Advanced Practicum	1
OCB 4104 Marine Field Ecology	1
PHC 4376 Disaster by Design	1
SPN 3413 Communication Arts	1
RED 4110 Teach Lit in School	1

SPN 3733 Intro Span Linguistics	1
PHC 4940 Internship in Disaster	1
OTH 5845 Level II Fieldwork I	1
RED 5339 Subj-Related Rdg	1
SPS 6941 Practicum	1
RED 7642 Crit Issues in Literacy	1
SPT 4940 Judicial T/I Intern	1
NUR 4905 Independent Study	1
PCB 4133 Topics in Struct Development	1
PHC 6099 R Computing Health Scien	1
SRK 5003 Sanskrit III: Epic Rdg	1
PAD 6209 Fin Man Pub Org	1
STA 3951 Stat Presentations	1
PAD 6306 Pol Analy Prog Plan	1
SWS 4303 Soil Microbiology	1
PAD 6605 Admin Law & Procedur	1
SYA 3949 Internship	1
REL 3020 Meditation/Spiritual	1
SYA 5909 Direct Individ Study	1
REL 3027 Meditation & Mystic	1
PHY 4821L Adv Phys Lab	1
REL 3127 Church And State	1
SYD 6418 Grad Seminar in Urban Soc	1
PHC 6380 Intro-Neurotox	1
SYG 3325 Deviance in Society	1
REL 3310 Intro Asian Rels	1
PHY 6971 Thesis	1
REL 3316 Healing in Asian Rels	1
TCN 5080 Secure Telecom Tran	1
REL 4030 Methods Study Relig	1
PHZ 4710 Intro To Biophysics	1
REL 4312 Jews of Asia and Africa	1
TPA 3293L Teh Theatre Lab IV	1
REL 4361 Women in Islam	1
TPP 1110 Acting I	1
REL 4910 Independent Research	1
TPP 4224 Acting VII	1
REL 4941 Internship Seminar	1
TSL 5361 Tesol Sec Teachers	1
PHC 6430 Public Health Economics	1
TTE 6257 Traf Control Sys Ds	1
RLG 6930 Pedagogy Workshop	1
POT 3302 Political Ideologies	1
PHC 6907 Ind Study Pub Hlth	1
WST 3011 Campus Sexual Assault	1
RTV 3007 Intro To Television	1
NGR 6714 Clin Teach Strat	1
RTV 3511 Video Studio Prod	1
XDP 7000 PH.D. Student Exch.UM	1
PAD 6701 Quant Applications	1
PSB 4240 Neuropsychology	1
RTV 4320 Elec News Gathering	1
PCB 2099 Fdns Of Hum Physiol	1
RTV 4324 Broadcast News Magazine	1
SPN 2240 Interm Conversation	1
PAD 6718 Smart Governance	1
SPN 3301 Adv Spn Non-Herit Spks	1
RTV 6468 Studio Pdctn Pract	1
OCB 4303 Biol Marine Mammals	1
PAD 6726 App Res Acct Pub	1
SPN 3422 Adv Grammar-Comp I	1
SCM 6016 Supply Chain MGMT	1
SPN 3444 Span Bus Lat Am	1
PHC 7162 Grant Writing	1
SPN 4500 Spanish Culture	1
PHC 7198 Adv Qual in PH	1
OTH 5360 Global Soc Justice Hlth	1

PHC 7374 Org. Tox.	1
PHT 6905 Independent Study	1
PHC 7385 Emer Iss Neurotox	1
SPS 6805 Prof Iss Sch Psy	1
PHC 7437 Econ Eval HSR	1
SPT 3812 Found Interpreting	1
PHC 7702 Adv Measurement	1
SPT 4806 Oral Skills Interp	1
PHC 7917 Env Pre Doc Res	1
SPT 4941 Prof T/I Intern	1
SMT 2662 STEP 2 Lesson Math and Sci	1
SPW 3371 Lat Am Short Story	1
SMT 3100 Know and Learn Math and Sci	1
SPW 5934 Sp Topics Lang/Lit	1
NUR 4940 Senior Synthesis	1
SRK 2100 Sanskrit I	1
SMT 4301 Class Interact Math and Sci	1
SSE 3853 Soc Sci Sub Area Know	1
SMT 4664 Prob Based Instr Math-Sci	1
SSE 4942 Student Teaching	1
SMT 4944 Advanced LA Intern 2	1
STA 4905 Independent Study	1
SMT 4946 Learning Assist Intern 1	1
SUR 2101 Surveying	1
SMT 6105 Know and Learn in STEM Ed	1
SWS 4303L Soil Microbiology Lab	1
SOP 3004 Intro Social Psy	1
SYA 3400 Intro Quant Soc Research	1
SOP 3015 Soc & Per Dev	1
SYA 4011 Social Theory	1
NGR 6917 Grantsmanship I	1
SYA 4905 Dir Indiv Study	1
SOP 5058 Prosem Soc Psy	1
SYA 6356 GIS and Soc Research	1
SOW 3620 Soc Wk & Diversity	1
PCB 4462 IntroLandscapeEcol_GIS	1
SOW 4511 Practicum I	1
PCB 4467 Marine Reserves	1
SOW 4512 Practicum II	1
SYD 4237 Immigr And Refugees	1
SOW 4522 Field Seminar I	1
PHY 5940 Phy Grad Teach Wks	1
SOW 4523 Field Seminar II	1
PCB 4805 Endocrinology	1
SOW 5532 Field Practicum I	1
SYG 4060 Soc Of Sexuality	1
SOW 5629 Sow Prac-Diversity	1
SYP 3000 Indiv In Society	1
SOW 5641 Understnd Proc Aging	1
SYP 3520 Crime & Society	1
SOW 5905 Individual Study	1
TCN 5030 Comp Comm Net Techs	1
SOW 6114 Addiction Treatment	1
TCN 5640 Telecom Ent Plan St	1
PAD 7960 Comp Exam In Pa	1
PHZ 3308 Applied Nuclear Physics	1
SOW 6534 Field Practicum III	1
PHZ 6255 Molecular Biophys	1
PHI 2100 Intro To Logic	1
TPA 2332 Costume Technology	1
SOW 7216 Soc Welf Pol	1
TPA 3296 Adv Tech Proj I	1
PHI 2103 Critical Thinking	1
TPA 4912 Portfolio I	1
NSE 3992 Natl Student Exch-B	1
POS 4931 Topics: Politics	1
SPA 5009 Norm Comm Dev	1

TPP 4166 Voice and Movement V	1
SPA 5012 Intro CSD	1
TPP 4311 Directing II	1
PHI 3300 Epistemology	1
PET 3020 Foundations of Move Sci	1
SPA 5051 Clin Obs and Procedures	1
NGR 6405 Adv Bio Anes II	1
SPA 5102 Adv Human AP Comm	1
TTE 5315 Highway Safety Anal	1
SPA 5113 Adv Appl Phonetics	1
URP 5426 Emerg Mgmt And Plan	1
SPA 5150 Acoustics Sph and Hg	1
PAD 3034 Policy Dev & Impl	1
SPA 5262 Ling for Speech-Lang Path	1
VIC 4001 News Visualization	1
PHI 3601 Ethics	1
WOH 5935 World Hist Topics	1
SPA 5935L Pre-Clin Seminar	1
POW 4391 Braz Cinema	1
PHI 3800 Aesthetics	1
WST 4504 Feminist Theory	1
PHI 4371 Truth and Deception	1
WST 4940 Women Studies Intern	1
SPA 6938 Topics Spch Path	1
PPE 3502 Psy Of Consciousness	1
PCB 2061 Intro Genetics	1
XDP 7001 PH.D. Student Exch.UM	1
SPC 2608 Public Speaking	1
ZOO 3713 Comp Vert Anat	1
PHI 4911 Research Paper	1
PSB 6351 Cog Neuro Methods II	1
PCB 2061L Intro Genetics Lab	1
RCS 6821 Supervised Field Exp	1
LBS 4483 Organizational Conflict	1
MVB 2321 Prin Applied Trumpet	1
MUN 4143L Symphonic Wind Ens	1
ISM 7126 Design Science Research	1
MVJ 5353 Prin App Jazz Guitar	1
LIT 4825 Intro to Latinx Lit	1
MVW 3432 Major Applied Oboe	1
LIT 6970 Master's Thesis	1
MUS 3333 Sound Reinforcement	1
MAA 6506 Functional Analysis	1
MVJ 2321 Principle Applied Jazz Voice	1
MAC 2241L Calc 1 Lab Biology	1
MVK 5351 Prin App Piano	1
ISM 7935 Res Info Systems	1
MVV 2321 Prin Applied Voice	1
MAE 4312 Adv Elem Math Methods	1
MUN 2720 Jazz Vocal Ensemble	1
MAN 3025 Organization & Mgmt	1
MUN 5485 Guitar Ensemble	1
ISM 4151 Manage Digital Srvc Innov	1
MUS 5910 Research	1
MAN 3949 Mgt Internship I	1
MVB 4342 Prin Appl French Hor	1
MAN 4330 Comp & Benefits	1
MVJ 3434 Maj App Jazz Bass	1
ISS 3222 Spec Top Foreign Policy	1
MVK 1411 Major Applied Piano	1
ISS 3613 Issues in Global Policy	1
MVS 1212 Secondary App Viola	1
MAN 4671 Special Topics Ib	1
MVS 4971 Senior Rec Strings	1
MAN 4690 Indep Study In Ib	1
MVW 1313 Prin App Clarinet	1
MAN 4711 Bus-Community Ldrsh	1

MUN 1790 Latin Jazz Ensemble	1
ISS 3940 ISS Public Policy Intern	1
LAW 7285 Profesion Jur Comp	1
MAN 4946 Int'L Bus Internship	1
MUN 5315 Concert Choir	1
MAN 4949 Mgt Internship II	1
MUN 5725 Jazz Vocal Ensemble	1
ISS 4651 Topics in Cyber Policy	1
MUS 5512 Sound Reinforcement	1
MAN 6167 Ldrshp Global Env	1
MVB 1311 Prin Applied Trumpet	1
ISS 4930 Topics in Globalization	1
MVB 3431 Major Appl Trumpet	1
INR 4931 Topics In Intr Rel	1
MVJ 1313 Prin App Jazz Guitar	1
ISS 6317 Soc Res Quant Methods I	1
MVJ 3331 Principle Applied Jazz Voice	1
MAN 6356 Prof Dev Seminar I	1
MVJ 4346 Prin Applied Jazz Sa	1
MAN 6357 Prof Dev Seminar II	1
MVJ 5455 Maj App Jazz Drms	1
ISS 6690 Prof. Seminar	1
LBS 3001 Intro Labor Studies	1
ITA 2240 Interm Ita Conver	1
MVP 1311 Prin App Percussion	1
JOU 3117 News Reporting and Writing	1
MVS 1416 Major Applied Guitar	1
JOU 4341 Sr Multimedia Prjt	1
MVS 3433 Major Applied Cello	1
MAN 6686 Masters Seminar Int'l Bus	1
MVS 5454 Major App Dble Bass	1
MAN 6726 Strategic Management	1
ISC 6152 Earth/Env Adv Grad Sem	1
MAN 6893 Leadership Dev III	1
MVW 2325 Prin Appl Saxophone	1
JOU 6185 Reporting Social Ethnic	1
LIN 6910 Res Proj for Pub I	1
MAN 7155 Fund Of Beh Rsrch	1
MUN 2490 New Music Ensemble	1
JPN 3000 Japanese Calligraphy	1
MUN 3313 Concert Choir	1
JPN 3242 Interm Japanese Conver	1
MUN 3793 Latin Jazz Ensemble	1
LAA 5374 Comp Prac Lscp 2	1
LAW 7942 Prosecution Inn. Project	1
MAN 7981 Dissertation Prep	1
MUN 5455L Piano Ensemble	1
MAP 4104 Top In Math Model	1
MUN 5715 Studio Jazz	1
MAP 6631 Intro Quant RAM	1
MUS 1010 Recital Attendance	1
MAP 7990 Topics in Math	1
LAW 7954 Negotiation Comp	1
INR 4905 Independent Study	1
LAW 7955 WAMR	1
MAR 4232 Cur Iss/Retail Mkg	1
MUT 3170 Jazz Theory I	1
LAA 6363 LSCP ARCH Grad Design 5	1
MVB 1313 Prin Appl Trombone	1
LAA 6655 LSCP ARCH Grad Design 3	1
MVB 3334 Prin App Bariton Ho	1
LAA 6905 Independent Study	1
MVB 3435 Maj Applied Tuba	1
LAA 6910 Graduate Seminar	1
MVB 4971L Senior Rec Brass	1
INR 4926 Model United Nations	1
MVJ 1411 Major Jazz Drums	1

LAE 4405 Children's Lit	1
MVJ 2329 Prin App Jazz Drums	1
LAE 4942 Student Teaching	1
MVJ 3432 Major Applied Jazz Voice	1
INR 5943 Intl Affairs Intern	1
MVJ 3970 Junior Recital-Jazz	1
LAH 5905 Rdgs In L.A. Hist	1
MVJ 4971 Senior Rec Jazz	1
IPM 4020 Integrated Pest Manage	1
MVJ 5451 Major Applied Jazz Voice	1
LAS 6003 Survey Latin America	1
MVK 1213 Sec Applied Organ	1
LAW 5259 Intro International & Comp Law	1
MVK 2423 Major Applied Organ	1
LAW 6105 Death Penalty Law	1
MVK 4441 Major Applied Piano	1
LAW 6106 Death Penalty Clinic	1
MVK 5453 Major Applied Organ	1
LAW 6350 Law & Procedure: US & Florida	1
MVP 3331 Prin App Percussion	1
LAW 6470 Natural Resources Law	1
LBS 4210 Women And Work	1
LAW 6584 Election Law	1
MVS 2321 Prin Applied Violin	1
LAW 6723 Community Lawyering	1
MVS 2423 Major Applied Cello	1
MAR 7507 Sem In Consumer Beha	1
MVS 4443 Major Applied Cello	1
MAR 7623 Sem Marketing Envir	1
MVS 5452 Major Applied Viola	1
LAW 6730 Admiralty Law	1
LBS 4654 Compar & Intl Labor	1
MAT 4934 Senior Math Seminar	1
ISC 5151 Earth/Env Grad Seminar	1
MAT 5907 Independent Study	1
MVV 4441 Major Applied Voice	1
MAT 5970 Master's Research	1
MVW 1415 Major Appl Saxophone	1
LAW 6741 Military Justice	1
MVW 2423 Major Appl Clarinet	1
MAT 7981 PhD Dissertation	1
NGR 5110 Theories In Nsg	1
LAW 6780 Legal Analysis	1
MUN 1710 Studio Jazz	1
LAW 6783 Adv Legal Analysis	1
MUN 2480 Guitar Ensemble	1
MET 4937 Senior Seminar Atmos Scien	1
LAW 6984 Judicial Externship Placement	1
MET 4941 Meteorology Internship	1
MUN 3024 Laptop Ensemble	1
MET 5707 Oper Meteorology Research I	1
MUN 3433L Univ Brass Choir	1
MET 7980 Ph.D. Dissertation	1
MUN 3713 Studio Jazz	1
MHS 6800 Adv Prac Counsel & C	1
MUN 4103L Golden Panther Band	1
MHS 6820 Sup Field Exp Couns	1
MUN 4453L Piano Ensemble	1
LAW 6798 ALR	1
MUN 4723 Jazz Vocal Ensemble	1
LAW 6809 Transnational Represent.	1
MUN 5435L Univ Brass Choir	1
MMC 3303 Global Media and Society	1
ISC 3523 Research Methods	1
LAW 6905 Independent Study	1
MUN 5496 New Music Ensemble	1
MMC 4631 Audience, Pub Opion, New Media	1

LAW 7951 Trial Advocacy Competition	1
MMC 4940 Media Practicum	1
MUO 4502 Opera Workshop	1
MMC 4941 JOU + Media Internship	1
MUS 3040 Recital Attendance	1
MMC 4944 SFMN Bureau Experience	1
LAW 7952 Appellate Advocacy Competition	1
MMC 5409 SHERCom	1
MUS 5345 Midi Technology	1
MMC 5440 Research Seminar	1
MUS 5711 Music Bibliography	1
ISC 1056 First Year Sem Earth Env	1
ISM 6307 Mgmt of IS Function	1
MMC 6108 Theories Mass Comm Writing	1
MUT 2116 Music Theory III	1
MMC 6736 SOCMEDCOM	1
MUT 3401 Counterpoint	1
MMC 6950 Mass Com Pro Prjt	1
MVB 1312 Prin Appl French Hor	1
LAW 6943 Immigration Clinic	1
MVB 1315 Prin Applied Tuba	1
LAW 6945 Criminal Externship Placement	1
MVB 3333 Prin Appl Trombone	1
LAW 6948 Business Tech Clinic	1
MVB 3335 Prin Applied Tuba	1
MSL 2101 Indiv Leadership	1
MVB 3434 Maj Appl Bariton Hor	1
MSL 2101L Indiv Leadership Lab	1
MVB 4341 Prin Applied Trumpet	1
MSL 3201 Leader/Prob Solving	1
MVB 4443 Major Appl Trombone	1
MSL 3201L Leader/Prob Solv Lab	1
MVJ 1011 Principle Applied Jazz Voice	1
MSL 4301 Leader/Management	1
MVJ 1318 Prin App Jazz Tromb	1
MSL 4301L Leader/Manage Lab	1
MVJ 1412 Major Applied Jazz Voice	1
MUC 1342 Music Tech Fundamentals	1
MVJ 2323 Prin App Jazz Guitar	1
MUC 2221 Composition Sem. I	1
MVJ 2427 Maj App Jazz Trumpet	1
MUC 2301 Intro to Electronic Music	1
MVJ 3334 Prin App Jazz Bass	1
MUC 3231 Composition Sem III	1
MVJ 3433 Maj App Jazz Guitar	1
MUC 3232 Composition Sem IV	1
MVJ 3435 Maj App Jazz Drms	1
MUC 3400 Elec Music Lab III	1
MVJ 4341 Principle Applied Jazz Voice	1
MUC 4241 Composition Sem V	1
MVJ 4445 Maj App Jazz Drms	1
MUC 4932 Composition Forum	1
MVJ 5150 Jazz Piano Tech	1
MUC 6405L Elec Mus Lab III	1
MVJ 5450 Maj App Jazz Pno	1
MUE 2040 Intro to Music Ed	1
MVJ 5453 Maj App Jazz Guitar	1
MUE 2470L Percussion Tech	1
MVK 1211 Sec Applied Piano	1
MUE 4480 Marching Band Tech	1
MVK 1311 Prin App Piano	1
MUE 4940 Stud Tch In Mus Ed	1
LAW 7990 Afr. L.J.	1
MUE 6785 Res In Music Ed	1
MVK 3135 Cls Jazz Pno I	1
MUE 6910 Directed Research	1
MVK 3431 Major Applied Piano	1

MUE 6938 Seminar In Music Ed	1
MVK 4971L Senior Rec Keyboard	1
MUE 6971 Thesis Music Ed	1
MVK 5451 Major Applied Piano	1
MUG 5205 Grad Choral Cond	1
MVK 5651 Piano Pedagogy	1
MUG 6309 App Orch Conducting	1
MVP 1411 Major App Percussion	1
MUH 2022 History of Rock Music	1
MVP 4441 Major App Percussion	1
LAW 6949 Civil Externship Placement	1
MVS 1311 Principle Appl Violi	1
MUH 3912 Mus Research Bib	1
MVS 1412 Major Applied Viola	1
LAW 6950 Law Review: Board of Editors	1
MVS 2221 Secondary App Violin	1
MUL 4643 Choral Literature	1
MVS 2326 Principal App Guitar	1
MUL 5645 Choral Literature	1
MVS 2422 Major Applied Viola	1
MUM 3601 Audio Techniques I	1
MVS 3331 Prin Applied Violin	1
MUM 3743 Artist Management	1
MVS 4441 Major Applied Violin	1
MUM 3744 Career Development for Artists	1
MVS 4444 Major App Dble Bass	1
MUM 3942 Internship Experience	1
MVS 5451 Major Applied Violin	1
MUM 4301 Business Of Music	1
MVS 5453 Major Applied Cello	1
MUM 4724 Concert Touring	1
MVS 5456 Major Applied Guitar	1
MUM 4814 Leadership in the Arts	1
MVV 1311 Prin Applied Voice	1
MUM 4940 Music Internship	1
LBS 5215 Women in Workplace	1
MUM 5715 Perform Arts Prod I	1
ISM 6489 E-Busin & Blockchain Apps	1
MUM 5725 Live Music Oper I	1
MVV 4341 Prin Applied Voice	1
MUM 5726 Live Music Oper II	1
MVV 4971L Senior Rec Voice	1
MUM 5795 Music Prod Lab I	1
MVW 1315 Prin Appl Saxophone	1
MUM 5809 Music Prod Seminar	1
MVW 2323 Prin App Clarinet	1
MUM 5946 Perform Arts Intern	1
ISE 4991 Study Abroad IHE	1
LAW 6956 Law Review: Senior Members	1
MVW 3331 Principal App Flute	1
MUN 1140L Symphonic Wind Ens	1
ISM 6942 MIS Internship	1
MUN 1310 Concert Choir	1
NGR 5905 Indep Study In Nsg	1
MUN 1430 Univ Brass Choir	1
LIN 6937 Linguistics Seminar	1
LAW 6958 Board of Advocates	1
NGR 6301 Adv Chld Hlth Nsg I	1
MSL 1001 Found Officership and Leadersh	1
MSL 1001L Found Officer Lab	1
GRA 4940 Internship	1
EDA 6905 Dir Stud Ed Ldrship	1
HFT 4757 Advanced Events Mgt	1
ENC 3492 Interdisciplinary Writing	1
INR 3081 Contem Intl Probs	1
EDF 7656 Comp Int'l Ed Pol	1
HFT 3741 Planning Meetings	1

ENC 4356 Writing Exile Experience	1
EML 4949 Co-Op Wk Experience	1
EDF 3251 Classrm Management	1
IDS 4949 Internship in LS/IDS	1
ENC 5703 Rhetorical Traditions	1
ECP 3254 Women, Men, Work	1
ENG 2012 Approaches To Lit	1
HFT 3066 The Art and Science Winemakng	1
ENG 4114 Film Adapt of Lit	1
EEL 5467 Ant Wireless Com Sys	1
ENG 4121 History Of Film	1
HIS 4941 History Internship	1
ENG 4132 Studies In The Film	1
EML 5709 Int. Fluid Mech.	1
ENG 4906 Independent Study	1
ECO 3949 Co-Op Ed In Eco	1
EEE 4314L Integrated Ckt. Lab	1
ENC 3334 Intro Writing Studies	1
ENG 5009 Lit Crit & Schol	1
GLY 4937 Senior Seminar Geol Scien	1
EEL 6825 Pattern Recognition	1
GRA 2111 Graphic Design I	1
EEE 4421 Intro to Nanofab	1
EDF 6481 Ed Research Method	1
ENT 4113 Entrepreneur: New Bus Develop	1
EML 3036 Simultn Software ME	1
DIE 6937 Graduate Seminar	1
EDH 7983 Dissertation Proposal Sem	1
ENV 3081 Career Orientation and Pro M	1
EML 4551 Ethics Dsn Proj Org	1
DIE 6947 Adv Diet Prac II	1
HIM 6865 Health Database Systems	1
ENV 4024 Bioremediation Eng	1
HIS 6942 Public Hist Intern	1
EEE 5427 Adv Nanofab	1
EML 5606 Adv Ref & A/C Syst	1
ENV 4891 ENV Senior Design	1
ECO 3303 Devel Econ Thought	1
EEE 5543 Random Signal Princ	1
IDC 1000 CS for Everyone	1
EEX 4067 Inst Practices in ESE II	1
EDF 6636 Intercultural Studie	1
ENV 5104 Indoor Air Quality	1
IND 5477 Comp Apps II	1
ENV 5930 Special Topics	1
INP 4210 Employee Selection	1
ESC 1000L Intro to Earth Science Lab	1
GLY 4511L Stratigraphy Lab	1
ESI 3215 Eval Engr Data I	1
EIN 6908 Independent Study	1
DAN 2100 Dance Appreciation	1
GLY 6971 Thesis	1
ESI 6455 Adv Eng Proj Mgmt	1
GRA 4189 Thesis I/Portfolio	1
EUH 2021 West Civ: Med/Mod	1
HAI 3500 Haiti: Cult/Lang	1
DIE 4963 Comp Dietetic Exam	1
EMA 5507 Analytical Tech	1
EUH 3511 Tudor and Stuart England	1
EEL 4930 Sp Top Elec Eng	1
EUH 4033 Nazism & Holocaust	1
HFT 3701 Sus Tourism Pract	1
ECO 4903 Undergrad Seminar	1
HFT 3795 Festival Management	1
ECO 4932 Topics In Theory	1
EML 3450 Energy Systems	1
EEX 6756 Families w Disabilities	1

ECS 7015 Develop Economic Theo	1
EVR 3010 Energy Flow	1
HFT 4474 Mgmt Acct Hosp Ind	1
EVR 3011 Evr Sci-Pollution	1
EML 4905 Senior Design Proj	1
EVR 4026 Biotic Resources	1
HIS 4930 Special Topics	1
EEX 6765 Inst Tech Spec Ed	1
DIG 4800 Digital Theories	1
EVR 4272 Agroecology	1
HMG 5901 Independent Study	1
EVR 4920 Env Studies Senior Seminar	1
EML 5530 Inter. Cad/Cae	1
EVR 4941 Undergrad Intern Env Stud	1
HMG 6586 Research & Stat Mthd	1
EVR 5320 Environ Res Mgmt	1
HOS 3012 Intro Horticulture Scienc	1
EVR 5360 Protected Area Manag	1
EEL 5741 Adv Microproc Sys	1
EVR 5907 Independent Study	1
HUN 2201 Princpls Nutrition	1
INR 4335 Strat Stds/Natl Sec	1
IDC 6940 Capstone-DS	1
INR 4411 Intl Humanit Law	1
IDS 1273 First Yr Sem Sustain	1
ECO 6076 Teaching Economics	1
DIE 4564 Dietetics Research	1
EDF 5905 Dir Stud Educ	1
IND 3306 Digital Media	1
EVR 7322 Meth Sust Res Mgmt	1
IND 5937 Special Topics	1
ECO 6204 Fund Macro Theory	1
EEL 5941 Grad ECE Internship	1
EVS 6194 Appl Soil Biol	1
ENC 3378 Writing Across Borders	1
EGM 4350 Fea In Mech Engr	1
INR 4093 Postcolonialism in IR	1
EXP 5099 Prosem Exp Psy	1
GLY 4881 Coastal Hazards	1
FES 1950 Intro Portfolio Dev	1
GLY 5457 Geophysical Data	1
FES 3951 Prior Learning Assessment	1
GLY 6061 Geoscience Systems	1
FES 6846 Comp Disaster Managmt Syst	1
GLY 6941 Teaching Geosciences	1
EGM 5354 Fem In Me	1
ECS 3021 Women Econ Devel	1
FES 6858 Crisis Communications	1
GRA 3817 Graphic Design II	1
FIL 4940 Intern Film Studies	1
GRA 4818 Graphic Design III	1
ECO 7207 Macro Theory II	1
HAI 2320 Haitian Creole Read/Comp	1
ECO 7717 App International Econ	1
ECS 3200 Economics Of Asia	1
EGM 5421 Structural Dynamics	1
EDH 7964 Doctoral Candidacy Exam	1
EDG 7667 Adv Topics Curr Stud	1
HFT 3033 Sustainability Team Mgmt	1
FIN 4651 Lat Am Fin Mkt & Ins	1
EMC 5415 Dig Contrl Mech Sys	1
EDG 7923 Doc Semin Curr Stud	1
EEL 4949 Co-Op Work Exp	1
FIN 4744 Financial Crime	1
EDF 2085 Tching Diverse Pop	1
EGN 1990 ENGIN. ENRICH. LAB	1
HFT 3713 Internl:Travl+Touris	1

FIN 5307 Fin Mrkt & Analy	1
HFT 3754 Intro to Events Mgt.	1
EGN 3613 Engineering Economy	1
HFT 3855 Intro to Brewing Process	1
FIN 6446 Competitive Strat	1
HFT 3900 Independent Study	1
FIN 6943 Fin Internship	1
EML 3500 Mech Design I	1
EGN 3910 Socio-technical Systems Design	1
EML 4416 Solar Engy Tech Fund Appl	1
FLE 4375 Spec Tch Lab Mod Lan	1
EML 4535 Mechanical Cad	1
FLE 5908 Dir Stud For Lang	1
EML 4804 Intro Mechatronics	1
FOL 3905 Independent Study	1
HFT 4653 Franchising Hosp Industry	1
FOL 3930 Special Topics	1
EML 4806 Modeling Of Robots	1
EGN 5013 Nanoscale Fab and Synth	1
HIM 6125 HIA Capstone	1
EGN 6935 Seminar on STEM Edu Res	1
HIS 3051 Jun Sem: Approaches Hist	1
FOW 5934 Spec Topics Lan/Lit	1
HIS 4935 Senior Seminar	1
FRE 2241 Intern Fr Convers	1
HIS 5084 History Memory Public	1
EGN 6957 Prof Dev in Eng and Comp	1
HIS 6906 Adv Rdgs Atl Civ	1
FSS 3233 Instl Fd Serv Prod	1
ECT 3183 Course Plan Voc Ed	1
FSS 3242 Internatnl Cuisine	1
EEL 5718 Comp-Comm Ntwk Eng	1
EEL 4461 Antennas	1
EML 5505 Smart Mach Des Dev	1
EGN 7980 Dissertation Res	1
HMG 6466 Hosp/Tour Rev Mgt	1
GEA 3320 People Envir of Carrib	1
HMG 6479 Strategic Revenue Mgt	1
GEA 3704 People Envir EAsia	1
HMG 6596 Mkt & Sales Hosp & Tour	1
EGS 1006 Intro To Engineering	1
EEL 5725 VHDL	1
EGS 1041 Tech, Humans and Soc	1
HOS 3012L Horticulture Science Lab	1
EEL 4583 Basics RF Systems	1
EML 6935 Graduate Seminar	1
EGS 5622 Enterprise Sys Intg	1
HSC 7935 Doctoral Seminar HSR	1
GEB 7910 Adv Quan Research Mthds	1
EDA 6943 Admin Internship	1
EGS 6008 Fund of Eng and Comp Edu	1
HUN 7524 Nutr Sci Comm Hlth	1
EIN 3390 Manuf Processes	1
IDC 5007 AI Concepts	1
DIG 4552 Advanced Multimedia Production	1
EML 7939 Ph.D. Seminar	1
DIE 6576 Project Diet Nutr	1
EDE 4936 Snr Sem In Elem Ed	1
GEO 2000 Intro To Geography	1
ENC 1101 Writing and Rhetoric I	1
GEO 3001 Geograph Global Change	1
IDS 4232 Sustainability in Action	1
GEO 4905 Independent Study	1
IDS 4918 VIP Program - C	1
GEO 5906 Directed Ind Studies	1
IHS 6948 FIU BHWET	1
GEO 6603 Cit and Reg in Global Persp	1

ECO 4703 Int Trade Theory	1
EIN 5359 Ind Fin Decisions	1
EEC 3204 Issues In Eec	1
EDH 6041 Found Acad Advising	1
IND 6255 IND Grad 1	1
GIS 2000 Cartogr, Mapng in Geograp	1
ENC 3354 Writing as Social Action	1
GIS 3048 Applications Of Gis	1
IND 6639 Research Methods	1
GLY 1010L Physical Geology Lab	1
INR 2001 Intro To Intl Rels	1
EIN 6336 Adv Prod Plan/Contr	1
INR 3061 Conflict Security	1
GLY 3039 Environ Geology	1
INR 4075 Int Prot Hum Right	1
GLY 4400L Stru Geol Lab	1
EDF 6906 Dir Stud Intl Devel	1
GLY 4511 Stratigraphy	1
EDE 6205 Cur Des Child Ed	1
EVR 6950 Graduate Seminar	1
ART 3504 Intermediate Painting	1
CNT 4147 IoT/Sensor Data Analytics	1
CHS 3511 Forensic Evidence	1
ASN 6940 Internship	1
COT 4431 Applied Parallel Comp.	1
AFA 2004 Black Pop Cult Global Dim	1
ANT 3241 Myth-Ritual-Mysticis	1
AFA 4370 Global Hip Hop	1
ADV 6503 Advanced Creativity	1
ATR 5217 Eval and Diagnosis I	1
ART 5939 Grad Art Sem I	1
ATR 5305 Ther Interventions I	1
ASN 6912 Master's Essay in AS	1
ATR 5815L Clinical Education I	1
CHM 3411L Phys Chem Lab II	1
ATR 5845L Clinical Ed IV	1
ART 4322 Adv. Classical Drawing	1
ATR 7806 DAT Capstone Project	1
CIS 4431 IT Automation	1
ARC 4058 Fund of Digital Design	1
ART 5395 Grad Cassical Drawing	1
BCH 6108 Biochem Techniques	1
CNT 6152 Adv IoT/Sensor Data Visua	1
BCH 7930 Biochem Graduate Seminar	1
COP 4005 Win Programming - It	1
BCN 2253 Bldg Construction Drawing	1
CRW 4900 Ind Study Crw	1
BCN 3720 Scheduling I	1
ANT 3212 World Ethnographies	1
AFA 4372 Hip Hop Race Gen Sex	1
CHM 1046 Gen Chemistry II	1
BCN 3753 Fin Mgmt Const Org	1
CHM 4220 Adv Org Chem	1
BCN 3949 Industry Internship	1
CHM 5765 Aquatic Chemistry	1
BCN 4564 Env Control II	1
APK 6713 App Sport & Perf Psych	1
BCN 4612 Cost Estimating II	1
CHS 5538 Chem Analysis Drugs	1
BCN 4724 Scheduling II	1
ART 4649 Intermed Digital Art Lab	1
BCN 4910 Senior Project	1
ART 5135 Graduate Fibers	1
AFA 4930 AADS Theory	1
ART 5580 Painting	1
ACG 7157 Thry & Rsrch In Actg	1
CNT 4504 Advanced Network Management	1

BCN 5728 Prin Const Sch	1
ARC 1171 Intro Cmptr Design 1	1
BCN 5738 Const Safety Mgmt	1
ASH 4404 History of China	1
AFR 1101 Heritage and Values I	1
ASN 3202 Japanese Anime and Manga	1
AFR 2130 Team & Leadership Fund I	1
CPO 4034 Pol Devlpmt Underdev	1
BCN 5792 TQM and Plng in Cnst	1
ARC 1461 Mat And Meth Design	1
ARC 5396 Case Studies In Arch	1
CGS 2060 Intro To Micro Comp	1
ARC 5483 Integr Building Systems	1
CGS 4285 Appl Networking	1
AFR 3220 Leadership Studies I	1
CHM 1045 Gen Chemistry I	1
BCN 6910 Supervised Research	1
ART 3647 Internet Art	1
AFR 4201 Security, Res & Com Prep I	1
CHM 3949 Chem/Biochem Internship	1
ADE 6925 Wksp Ae/Hrd	1
ART 3760 Intermediate Ceramics	1
BME 3721 BME Data Eval Prin	1
ART 3930 Art Spec Topics	1
BME 4011 Clinical Rotations	1
CHM 6491 Synchrotron Techniques	1
ARC 5621 Envir Systems in Arch 2	1
ART 4333 Advanced Figure Drawing	1
BME 4311 Molec Eng	1
ART 4560 Figure Painting	1
BME 4503 Medical Inst Design	1
CHS 4533 Forens Biochem Appl	1
BME 4562 Intro BME Optics	1
ART 4636 Advanced Video Art	1
BME 4800 Des Biomed Devices	1
CIS 4912 Research Exper for Undergrad	1
ARC 5711 Des Hist Ant to Ma	1
ART 4768 Advanced Ceramics	1
DAA 1100 Modern Dance Tech I	1
ART 4952 Thesis I	1
AGR 6255 Ecological Agriculture	1
CJE 6716 Law Enforcement Practicum	1
BME 4940 Undergraduate Internship	1
CLP 6473 Assessment and Treatment III	1
BME 5410 Biomed Phys Eng I	1
CLP 6948 Clinical Internship	1
BME 5560 BME Optics	1
CNT 4165 Network Protocols for IoT	1
ADE 6946 Teaching Practicum	1
CNT 6148 Adv IoT/Sensor Data Analy	1
ACG 7906 Independent Study	1
ART 5740 Sculpture	1
ARC 5941 Internship Experience	1
COM 3601 Environmental Communication	1
BME 6936 Biomed Eng Seminar	1
ART 5940 Advanced Art Internship	1
ARC 5945 Architecture Internship	1
ASN 3016 China Then and Now	1
BME 7938 Doctoral BME Sem	1
COP 4610 Operating Syst Princ	1
ADV 3008 Principles Of Adv	1
ASN 3329 Women Asian Society	1
BOT 3154L Local Flora Lab	1
COT 5432 Applied Parallel Comp.	1
BOT 3663 Tropical Botany	1
CPO 5934 Topics In Comp Pols	1
ADV 4101 Copy and Design Concepts	1

CRW 5130 Adv Fiction Wkshop	1
AMH 3310 Social Movements in US	1
CRW 6972 Creative Thesis Cont	1
BSC 2011 General Biology II	1
ART 3332 Intermediate Figure Drawing	1
ARE 4316 Sp Tch Lb: Art K-6	1
CGS 2100 Comp Appls Business	1
BSC 2023 Human Biology	1
CGS 3559 Using The Internet	1
BSC 2023L Human Bio Lab	1
CHM 1020 Chemistry & Society	1
BSC 2300 Biological Organization	1
ART 3560 Figure Painting	1
ARE 6746 Sem Art Edu:Cmtmp Is	1
ART 3565 Begin Fiber Based Art	1
BSC 3910 Biology Research Methods	1
ART 3617 Intermediate Ex Video	1
BSC 3915 Student Research Lab	1
ART 3666 Story Development	1
ARH 2050 Art Hist. Survey I	1
CHM 3910 Chemistry Research Method	1
ARH 3511 Intro African Arts	1
ART 3710 Intermediate Sculpture	1
BSC 4205 Topics Organism Diversity	1
CHM 4230L Org Struc Detn	1
BSC 4363 Carib Biodiversity	1
CHM 4307L Bio Chem Lab II	1
ARH 4470 Contemporary Art	1
ART 3822 Creative Practice	1
ARH 4471 Post 1985 Art	1
CHM 5306 Spec Top Biol Chem	1
ARH 4512 Africa Diaspora Art	1
CHM 6157 Adv Analytical Chem	1
BSC 4927 QBIC Science Cafe	1
ADV 6305 Media Planning	1
ARH 4534 Buddhist Art of Asia	1
CHM 6936 Chem Colloquium	1
ARH 4552 Arts China and Japan	1
CHM 6949 Indust Internship	1
BSC 5945 Teaching Biology	1
ART 4505 Advanced Painting	1
BSC 5975 Thesis Defense Sem	1
ART 4566 Intmd. Fiber Based Art	1
BSC 6457 Intro Bio Research	1
CHS 4430 Intro Chemical Toxicology	1
ARH 4710 Hist Of Photography	1
CHS 5435 Pharma/Toxicology Drugs	1
AMH 3317 America & Movies	1
CHS 5545 Chem Explosives	1
BSC 6936 Topics In Biology	1
CIS 3950 Capstone I	1
BSC 6971 Master's Thesis	1
CIS 4911 Senior Project	1
BSC 7961 Disser Proposal Sem	1
CIS 4951 Capstone II	1
ARH 5483 Graduate Post 1989 Art	1
ART 4711 Advanced Sculpture	1
BSC 7982 Disser Defense Sem	1
CIS 5374 Informat Security and Privacy	1
BUL 6810 Bus/Leg Environment	1
ART 4940 Art Internship	1
ARH 5532 Beliefs Made Visible	1
ART 4953 Thesis II	1
ARH 5550 Arts of China and Japan	1
CJE 6695 Cybercrime	1
ARH 5940 Internship Exper	1
CLP 4134 Child Psychopatholog	1

CCJ 3941 Apprenticeship	1
CLP 5007 Psych Clinical Science I	1
CCJ 4072 GIS and Crime Mapping	1
ART 5408 Printmaking	1
AMH 4930 Topics In Us History	1
CLP 6947 Foundations Practicum II	1
CCJ 4940 Internship in CJ	1
CNT 3143 IoT Analytics & Cloud	1
CCJ 6025 Criminological Theory	1
CNT 4151 IoT/Sensor Data Visual	1
CCJ 6079 Geospatial Crime Analysis	1
ART 5584 Grad Figure Painting	1
AMH 5905 Rdgs In Amer Hist	1
ART 5677 Video Art	1
CCJ 6935 Special Topics C J	1
CNT 6150 Adv Sensor/IoT Deep Learn	1
ART 2021 3D Animation	1
CNT 6154 Adv IoT Applied ML	1
ART 2025 2D Animation	1
COM 3135 Managerial Communication	1
CDA 3102 Computer Architecture	1
COM 3461 Intercultural Comm	1
CDA 3104 Intro. to Computer Design	1
ADV 6805 Creative Strategy	1
AMH 6932 Rsch Amer History I	1
COM 4930 Spec Topics in Comm Arts	1
AML 4213 Early American Lit	1
ASH 4384 Hist/Women In Asia	1
CEN 4083 Cloud Computing	1
COM 6945 Grad Internship	1
ANG 5905 Directed Ind Study	1
COP 3804 Intermediate Java	1
CES 5325 Design Hwy Bridges	1
ASN 3125 Spirituality of Japan	1
CES 5587 Topics in Wind Engineering	1
ASN 3200 Asia Through Films	1
CGN 2161 Career Orientation in Civil En	1
COP 4814 Compon Software Dev	1
ANG 5906 Direct Individual Studies	1
COP 6727 Adv Database Sys	1
ANG 5915 Directed Field Resea	1
COT 5310 Thry Computation I	1
CGN 4949 Co-Op Work Exp	1
ASN 3410 Intro East Asia	1
ACG 6696 Current Issues Audit	1
ASN 5910 Ind Research	1
ART 2622 Intro Video Art	1
CRW 4110 Writing Fiction	1
ART 2648 Intro Digital Art Lab	1
CRW 4930 Special Topics Crw	1
ART 2701 Beginning Sculpture	1
CRW 5935 Special Topics Crw	1
ADV 4800 Bold Practicum 2	1
CRW 6971 Creative Thesis	1
ART 3023 Intermediate Animation	1
CTS 4743 EnterpriseIT Troubleshoot	1
ANT 2000 Intro Anthropology	1
ART 3314 Classical Drawing	1
BME 4908 Senior Design Proj	1
DAA 1200 Ballet I	1
BME 4912 Undergrad Research in BME	1
BME 4930 Undergrad Seminar	1
TOTAL	3756

Spring 2021	
Total Number of Course Sections Offered	n = 7,740

Course Title(s) with No Cost to the Student for Course Materials	Number of Section(s)
SLS 1501 First Year Exper	47
GEB 3003 Career Management	44
EDG 7980 Ed.D. Dissertation	36
IDH 3035 Honors Seminar VI	33
SLS 1510 Strategies for Success	32
PSY 7980 Ph.D. Dissertation	30
PSY 4940 Research Internship	28
BSC 7980 Ph.D. Dissertation	26
BSC 6913 Student Research Lab	25
NUR 3226L Nurs of Adults I CI	24
CHM 7980 PH.D. Dissertation	23
BSC 4931 Senior Seminar	23
CHM 7910 Dissertation Researc	22
CGN 7980 Ph.D. Dissertation	20
CIS 7980 Ph.D. Dissertation	19
BSC 3941 Biological Science Intern	19
EVR 1001L Intro Environment Sci Lab	18
EEL 6905 Individual Work	18
EEL 7980 Ph.D. Dissertation	18
CHM 4910 Under Res Chem	18
PCB 3063L Genetics Lab	17
CIS 7910 Graduate Research	17
NUR 3535L Psychosocial Nur CI	16
PSY 5918 Supervised Research	16
HIS 7980 PH.D. Dissertation	15
SDS 4340 Career Development	14
PHY 6939 Graduate Research	14
FSS 3230 Intro Comm Food Serv	13
AST 1002L Descriptive Astronomy Lab	13
PCB 3702L Interm Human Phy Lab	12
PHC 7980 Dissertation	12
MAN 7980 Ph.D. Dissertation	12
IDH 1002 Honors Seminar II	12
EEL 7910 Advanced Research	12
EEL 6931 Special Topics	12
ENC 3213 Prof and Tech Writing	12
ARC 6970 Masters Project	12
AMH 2020 Amer Hist Since 1877	12
NUR 4945 Senior Practicum	11
PSY 4931 Senior Seminar	11
SPA 6930 Master's Project	11
MAR 4354 Marketing Yourself	11
INR 7980 PH. D. Dissertation	11
EEL 4921 Senior Design II	11
GLY 1010L Physical Geology Lab	11
ACG 6175 Fin Rptg And Anal	11
NGR 7940 DNP Project I	10
NGR 7941 DNP Project II	10
MCB 2000L Intro Microbio Lab	10
LEI 3723L Rec Therapy Fac Techs Lab	10
EVR 6970 Supervised Research	10
BME 7980 Ph.D. Dissertation	10
ARC 5935 Special Topics	10
THE 4971 Senior Projects	9
PAD 7980 PH.D. Dissertation	9
SPN 7980 Ph.D. Dissertation	9
PCB 4023L Cell Biology Lab	9
PHY 7981 PH.D. Dissertation	9
MMC 3932 Intense Pods	9
MCB 3020L General Micro Lab	9
HUN 2000L Fnd Nutr Sci Lab	9
EML 6908 Ind Studies	9
EML 6910 Supervised Research	9
BSC 2011L Gen Biology Lab II	9
CGN 6910 Supervised Research	9

CCJ 7980 Ph.D. Dissertation	9
SMT 3931 LA Seminar	8
URS 7926 Super Readings	8
SYG 2000 Intro Sociology	8
ZOO 3731L Human Anatomy Demo	8
MAR 6816 Corp Simulation	8
GLY 7980 Ph.D. Dissertation	8
EML 7979 Ph.D. Dissertation	8
IDS 4890 IDS Capstone	8
BME 6910 Supervised Research	8
ANG 7980 Ph.D. Dissertation	8
ARC 5335 Arch Design 6	8
PHT 6970 DPT Project	7
PHY 4905 Independent Study	7
MUS 5906 Master's Recital	7
MAR 3023 Introduction to Marketing	7
LEI 4940 Internship I	7
IDH 4905 Honors Independ Stud	7
ECO 7980 Ph.D. Dissertation	7
EML 4930 Special Topics/Proj	7
EDE 4943 Student Teaching	7
FOL 5906 Independent Study	7
EVR 7980 Ph.D. Dissertation	7
ENT 1000 Intro to Entrepreneurship	7
CHS 3501L Surv For Sci Lab	7
CLP 6943 Adv Clinical Prac	7
BME 6905 Ind Studies	7
COM 3110 Bus And Prof Commun	7
CHM 1045L Gen Chem Lab I	7
ARC 5362 Arch Design 9: Sust Prac	7
CHM 1020L Chem & Society Lab	7
SMT 2044 STEP 1&2 Lesson Math and Sci	6
PSY 4914 Honors Research Proj	6
NGR 6202 Adv Ad Geron Nsg Pr II	6
PHT 6827 Clinical Intern III	6
RLG 6971 Thesis	6
PHT 6905 Independent Study	6
SOW 7980 Ph.D. Dissertation	6
NGR 6504 Adv Pmh Nsg Prac II	6
NGR 6602L Adv Fam Nsg Prac II	6
POS 7980 PH.D. Dissertation	6
ISM 6021 Mgmt Information Systems	6
MAR 4804 Marketing Strategy	6
INR 6967 Comps Prep	6
MAE 4310 Teach Elem Math	6
HFT 4294 Sr. Sem. Hosp. Mgmt.	6
HFT 3503 Hosptly Mktg Mgmt	6
EEL 3110L Circuits Lab	6
ENC 1101 Writing and Rhetoric I	6
HFT 3930 Intensive Pod in Hosp. In.	6
ESC 1000L Intro to Earth Science Lab	6
GLY 6910 Supervised Research	6
FIN 3414 Intermed Fin Mgmt	6
ARC 1302 Design Studio 2	6
ARC 5555L Structures 3 Lab	6
CHM 1046L Gen Chem Lab II	6
CHM 2211L Organic Chem Lab II	6
PSY 4941 Psychology Internship	5
PET 4946 Sport and Fitness Internship	5
NGR 7980 Dissertation I	5
PHC 6914L Curr. Top. EHS Lab	5
THE 4916 Research	5
RTV 3531 Multimedia Prod	5
NGR 6431L Anesth Nsg Clin Res I	5
PSY 5908 Directed Ind Study	5
MUN 3463 Chamber Music	5
MUM 3942 Internship Experience	5

MUN 4714 Jazz Combo Class	5
ISM 7980 Ph.D. Dissertation	5
MUS 5905 Directed Study	5
ISM 6136 Business Analytics Application	5
MUS 4910 Research	5
MAN 6365 Staffing Organizat	5
EDG 6943 Supvd Fld Exp	5
DIE 7980 Ph.D. Dissertation	5
EEC 4943 Student Teaching	5
ENC 1102 Writing and Rhetoric II	5
EGS 5622 Enterprise Sys Intg	5
ENC 3249 Prof Tech Writing Comp	5
ENG 4906 Independent Study	5
DIE 6906 Readings Dietet/Nutr	5
ASN 5932 Special Topics	5
COP 2210L Lab for Programming I	5
COM 4958 Campaigns	5
ARC 2304 Design Studio 4	5
CHM 1033L Survey Chem Lab	5
CHM 3120L Intr Analyt Chm Lab	5
CCJ 7960 Comprehensive Exam	5
PHC 6907 Ind Study Pub Hlth	4
REL 3308 Studies In World Rel	4
TPA 2290L Tech Theatre Lab I	4
PHI 2600 Intro Ethics	4
RLG 5911 Indep Research	4
PHT 6325 Adv Clin Ped P.T.	4
SOW 6914 Independent Research	4
PHT 6547 Case Mgmt Pt	4
NGR 6432L Anesth Nsg Clin Res II	4
PHT 6725 Extremity Eval/Rehab	4
WST 4905 Independent Study	4
NGR 7943 DNP Project Completion	4
PCB 4932 Topics in Ecology	4
PPE 3003 Thry Of Personality	4
SMT 2661 STEP 1 Teach Math and Sci	4
PUR 4940 BOLD Agency	4
SPC 3210 Communication Thry	4
RED 4325 Subj Area Reading	4
TPA 2292L Tech Theatre Lab III	4
REE 6306 Corporate Real Estate	4
NGR 6435L Anesth Nsg Clin Res V	4
PHI 2010 Intro to Philosophy	4
MAN 6403 Employm Law & Hrm	4
ISM 4420 Business Analytics	4
MUN 5465 Chamber Music	4
LEI 4941 Internship II Lei	4
LAW 7952 Appellate Advocacy Competition	4
LAW 6936 Seminars	4
LAW 7954 Negotiation Comp	4
MAR 6805 Mkg Mgt In Glob Env	4
MUS 4905 Directed Study	4
MAN 6336 Reward Sys Mgmt	4
MAT 7908 Independent Study	4
MAN 6974 Master's Project	4
IDS 3336 Artistic Expression	4
HFT 4464 Fin Anal Hosp Indust	4
EEL 3110 Circuit Analysis	4
EML 4911 UG Research Exp	4
FIN 7980 Ph.D. Dissertation	4
EVR 1001 Intro Environmental Scien	4
DIG 3110 Web Production	4
DIG 4552 Advanced Multimedia Production	4
EIN 5332 Quality Engineering	4
FIN 3403 Financial Management	4
HIS 5908 Independent Studies	4
EDH 7980 Ph.D. Dissertation	4

EEL 5171 Adv. Sys. Theory	4
ART 2500 Beginning Painting	4
CHM 4911 Undergrad Res 2	4
BME 4051L BME Lab II	4
ADV 4323 Branding and Social Media	4
BME 6907 BME MS Project	4
BSC 6971 Master's Thesis	4
CHM 2211 Organic Chem II	4
COP 4555 Prin Of Prog Lang	4
CHM 3411L Phys Chem Lab II	4
CGN 4930 Spec Topics Civ Eng	4
CHM 6970 Thesis Research	4
ART 4910 Research	4
COM 1004 Intro to Comm Arts	4
CGN 6971 Thesis	4
ARC 4586L Structures 1 Lab	4
AST 2003L Solar Sys Astr Lab	4
WST 5905 Independent Study	3
SYA 7980 Ph.D. Dissertation	3
SPN 3301 Adv Spn Non-Herit Spks	3
REE 6209 Real Estate Finance	3
PUR 1951 PRAAC Orientation	3
PHT 5181L Musculo Dx Ii Lab	3
PSY 5939 Spec Topics In Psy	3
NGR 6441L Anesth Nsg Sim Pract II	3
SPN 3422 Adv Grammar-Comp I	3
NUR 4636 Community Nursing	3
PHC 6945 Practicum in Pub Health	3
OTH 5843 Psychosocial Practice II	3
PHT 5205L Clin Skills Lab	3
OTH 5921L Integrative Seminar I	3
PHT 6164L Neuro Dx & Mgt Ii L	3
PHT 6381L Cardiopulmonary Lab	3
SPC 3602 Adv Public Speaking	3
NGR 6497 Adv Anesth Life Supp	3
SPN 3401 Adv Spn Conver	3
PAD 3003 Intro Public Policy Serv	3
SPN 3440 Spn Business Comp	3
PCB 3043L Ecology Lab	3
SYP 3456 Societies in World	3
WST 4940 Women Studies Intern	3
PHC 7982 PH Pre Dissertation Res	3
SOW 7916 Supervised Research	3
TPA 2291L Tech Theatre Lab II	3
MVV 3331 Prin Applied Voice	3
TRA 4214 Logistics Strat	3
SPA 6505 Adv Clin Prac	3
VIC 3400 Vis Design Global Media	3
PHC 6930 Integrative Sem Pub Hlth	3
SPA 6971 Master's Thesis	3
REL 4937 Special Topics	3
QMB 6616 Process & Oper Analysis	3
MVS 4971 Senior Rec Strings	3
LAA 6656 LSCP ARCH Grad Design 4	3
MUN 1460 Chamber Music	3
MAR 4503 Consumer Behavior	3
MAR 7980 Ph.D. Dissertation	3
MAR 4674 Marketing Analytics	3
MAN 6327 High Involve HRM	3
MAE 4312 Adv Elem Math Methods	3
LAW 7946 Advanced Externship Placement	3
MAR 4860 Customer Relationship Mgmt	3
LAW 6905 Independent Study	3
MAR 4941 Marketing Internship	3
MAN 4720 Strategic Management	3
MAR 6506 Consumer Behavior	3
MUH 2370 Hist The Beatles	3

MAR 6675 Marketing Analytics	3
MUM 4940 Music Internship	3
MAN 3100 Happiness at Work	3
MUN 2711 Jazz Combo Class	3
MAN 4602 Intl Business	3
ISS 6926 Capstone	3
MAR 6880 Social Media Marketing	3
LAE 4942 Student Teaching	3
MAR 6915 Indep Study In Mar	3
ISC 4940 Research Internship E&E	3
MAR 6944 Marketing Internship	3
MUS 5910 Research	3
MAN 7916 Doc Res In Bus Admin	3
MAT 7980 Dissertation Research	3
HFT 2220 Human Resources for Hosp	3
HFT 4413 Hosp Analytics & Rev Mgt	3
HFT 3453 Operations Control	3
ENC 3465 Legal Writing	3
HMG 6257 Industry Resrch Analysis	3
DIE 4435L Nutr Counseling Lab	3
HFT 3072 PATHWAY II	3
FIN 6246 Financial Mkts & Ins	3
EDP 4274 Soc Emotional Devp	3
ENG 4949 Co-Op Ed In Eng	3
EDH 6905 Dir Stud Higher Ed	3
EDF 6906 Dir Stud Intl Devel	3
EDA 7980 Ed.D. Dissertation	3
IND 6258 Grad 4	3
HFT 2441 Hospitality Info Tech	3
EAB 6941 Prac Appl Behavior	3
HFT 3263 Restaurant Mgmt	3
DEP 2000 Human Growth Dev	3
EGS 5620 Enterprise Sys Conf	3
EML 3301L Instrumentation Lab	3
IND 6970 Masters Project	3
GEO 7980 Ph.D. Dissertation	3
ENC 3371 Rhetorical Theory/Practice	3
DIG 4293 Multimedia Production 2	3
EEL 3135 Signals And Systems	3
EEX 4861 Student Teaching	3
EEL 4920 Senior Design I	3
EGN 5644 Commercializing Innov	3
EEE 3303L Electronics I Lab	3
HFT 1000 Intro to Hosp and Tour	3
FSS 4234 Adv Food Prod	3
ECO 7925 Adv Workshop	3
EEE 4304L Electronics II Lab	3
EIN 5436 Logistics Reg Compliance	3
FOS 4041L Food Science Lab	3
ENV 3001L Envir Lab I	3
CHM 6940 Supervised Teaching	3
COM 4462 Conflict Management	3
CGN 6905 Dir Ind Study	3
CGS 1920 Intro to Computing	3
CGN 6939 Graduate Seminar	3
ASN 5910 Ind Research	3
ARC 6906 Independent Study	3
ACG 6455 Acg Info Sys Tech I	3
BSC 6926 Workshop Biology	3
CHM 1045 Gen Chemistry I	3
BOT 1010L Intro Botany Lab	3
BSC 2922 QBIC Journal Club II	3
CHM 4930 Senior Seminar	3
BCH 3033L Gen.Biochemistry	3
ACG 7980 Ph.D. Dissertation	3
BSC 5935 Topics In Biology	3
ANG 5905 Directed Ind Study	3

BCN 5706 Interdis Aspect Hou	3
ART 1203 3d Design	3
ART 3820 Research & Development	3
ART 2300 Beginning Drawing	3
CHM 3400L Fund.Phys.Chm.Lab	3
COM 4940 Internship in Comm Arts	3
CEG 4011L Geotechnical Test La	3
COM 6945 Grad Internship	3
CHM 4130L Instr Analysis Lab	3
BSC 4915 Honors Research	3
CEN 5079 Secure Application Prog	3
CWR 3201L Fluid Mechanics Lab	3
NGR 6504 Adv Psy-M Hlt Nsg II	2
PGY 4611 Digital Photo and Social Media	2
SSE 4942 Student Teaching	2
PAD 3034 Policy Dev & Impl	2
PUR 6956 Prof. Project	2
REL 4910 Independent Research	2
SPN 3733 Intro Span Linguistics	2
PAD 3800 Managing Global Cities	2
SYA 7967 Prep Doctoral Exam	2
PAD 4934 Integrative Sem Public Po	2
THE 4950 Theatre Internship	2
PAD 6946 Pad Internship	2
QMB 4680 Bus Stats & Analysis II	2
MVV 5251 Secondary App Voice	2
NGR 7982 Candidacy Examination	2
RTV 4320 Elec News Gathering	2
SPS 6678 Sup Fld Exp Sch Psy	2
RTV 4324 Broadcast News Magazine	2
STA 3951 Stat Presentations	2
RTV 4350 Newscast Production	2
SYD 4237 Immigr And Refugees	2
SCE 4944 Student Teaching	2
THE 3940 Internship Experience	2
SCM 6016 Supply Chain MGMT	2
MVV 4971L Senior Rec Voice	2
SLS 1402 Discover Your Major	2
TPP 2160 Theatre Voice Mov I	2
SLS 3407 Major and Career Exploration	2
TSL 6908 Field Component	2
MVV 3970L Junior Rec Voice	2
WST 3011 Campus Sexual Assault	2
MVV 4441 Major Applied Voice	2
OTH 6973 MS Project Imple	2
NGR 6202 Adv Ad Geron Nsg II	2
SPN 4905 Independent Study	2
SMT 4301 Class Interact Math and Sci	2
SPW 7910 Pre-Dis Research	2
SOW 3620 Soc Wk & Diversity	2
STA 3123 Stat for Behav Scien II	2
PET 3020 Foundations of Move Sci	2
SYA 6356 GIS and Soc Research	2
PET 3310 Kinesiology	2
MVW 3432 Major Applied Oboe	2
PET 4929 Senior Seminar Pe	2
SYD 7903 Directed Readings	2
SPA 5035 Disorders Hg and Aud	2
SYP 3520 Crime & Society	2
PHY 3802L Intermed Phys Lab	2
PHC 6104 PH Management and Leadershp	2
NGR 6910 Research Project	2
PHC 6538 Gene & Env Int	2
POS 2041 American Government	2
OCB 3043L Mar Bio Oceanog Lab	2
SPC 2511 Fund of Argument and Debate	2
TPA 4912 Portfolio I	2

SPC 2608 Public Speaking	2
TPP 4195L Ud Production/Perf	2
POS 7910 Pre-Dis Research	2
TRA 4721 Global Logistics	2
SPC 3301 Interpersonal Comm	2
OCE 3014L Oceanography Lab	2
PGY 2110 Beginning Color Photo	2
WOH 2001 World Civilization	2
PGY 3153 Intermediate Color Photo	2
WST 3641 LGBT and Beyond	2
PSB 3002 Intro Bio Psy	2
WST 4930 WST Special Topics	2
PGY 4155 Color Photography IV	2
NUR 3066 Hlth Assess and Promo Nsg	2
PSY 4930 Adv Special Topics Psy	2
REE 6935 Sem Intl Real Estate	2
MMC 4940 Media Practicum	2
INR 4603 Theories Intn'L Rel	2
MVB 3970L Junior Rec Brass	2
LAH 5935 Topics In L.A. Hist	2
MET 7980 Ph.D. Dissertation	2
LAW 5781 Legal Reasoning	2
INR 7910 Pre-Diss Research	2
LAW 6350 Law & Procedure: US & Florida	2
MVK 3970L Junior Rec Keyboard	2
INR 4905 Independent Study	2
ISS 3940 ISS Public Policy Intern	2
LAW 6949 Civil Externship Placement	2
MHS 6910 Dir Stud Coun Sch Ps	2
LAW 7951 Trial Advocacy Competition	2
MUH 6937 Special Topics	2
LEI 5907 Dir Stud Rec Man	2
MUS 3905 Directed Study	2
LIN 6905 Independent Study	2
MVJ 3970 Junior Recital-Jazz	2
MAD 2104 Discrete Mathematics	2
MVS 1411 Major Applied Violin	2
ISM 4210 Database Applications	2
ISS 3222 Spec Top Foreign Policy	2
ISM 4314 Project Management	2
JOU 3117 News Reporting and Writing	2
MAE 4942 Student Teaching	2
MHS 6820 Sup Field Exp Couns	2
ISM 4402 Bus Intel Reporting	2
MMC 3003 Journalism + Media Orient	2
MAN 4301 Human Res Mgmt	2
MVS 2321 Prin Applied Violin	2
MAN 4690 Indep Study In Ib	2
LAA 6654 LSCP ARCH Grad Design 2	2
ISM 6307 Mgmt of IS Function	2
MUN 5716 Jazz Combo Class	2
ISM 6942 MIS Internship	2
LAA 6970 Masters Project	2
MAN 7275 Org Behav Mgmt	2
MVB 4971L Senior Rec Brass	2
MAN 7640 IB Research Methods	2
MVJ 4971 Senior Rec Jazz	2
MAN 7718 Analysis Of Corp Pol	2
MVK 4971L Senior Rec Keyboard	2
MAN 7910 Adv Mgmt Res Mthds	2
MAN 7981 Dissertation Prep	2
MMC 6950 Mass Com Pro Prjt	2
EEL 4747L Microcomputers II Lab	2
GEO 7964 Doctoral Exam Preparation	2
EEC 3400 Fam Lit Young Child	2
EEL 6821 Computer Vision	2
EEL 3712L Logic Design I Lab	2

EEL 6894 Real Time Comp and App	2
IDH 3999 HONORS Internship	2
EEL 6971 Thesis	2
FSS 3242 Internatnl Cuisine	2
EEX 6796 CLD Exceptional	2
GLY 1101L History Of Life Lab	2
EGM 3520L Materials Testing	2
EEL 4709 Computer Design	2
DIE 4246L Cli Nutrition Lab	2
HMG 6697 Hsptly Law Seminar	2
EIN 5226 Tqm For Engineers	2
FIN 4604 Intl Fin Mgmt	2
EIN 5993 Industrial Marketing	2
FOW 5934 Spec Topics Lan/Lit	2
EIN 6940 ISE Internship	2
GEB 6941 Grad Bus Internship	2
EMA 3702L Mech & Mat Sci Lab	2
GIS 5050 Environmental GIS	2
EME 2040 Intro Ed Tech	2
HFT 1070 Pathway I	2
EML 3126L Transp Pheno Lab	2
HFT 3741 Planning Meetings	2
DIE 6915 Supervised Research	2
HFT 4474 Mgmt Acct Hosp Ind	2
EML 4905 Senior Design Proj	2
HMG 5936 Intensive Pod in Hsp. In.	2
EDF 2085 Tching Diverse Pop	2
HSA 3412 Cultural Competency in HSC	2
EDF 6608 Soc Phil Hist Found	2
EEL 5427 EM Modeling	2
DIE 6946 Adv Diet Prac I	2
EEL 5941 Grad ECE Internship	2
DIE 4435 Nutr Counseling	2
FIN 6943 Fin Internship	2
ENC 3354 Writing as Social Action	2
FSS 3233 Instl Fd Serv Prod	2
EDG 7692 Pol Of Curriculum	2
ECO 2023 Principles Microeco	2
ENC 4331 Community Writing Course	2
GEO 5906 Directed Ind Studies	2
ENG 2012 Approaches To Lit	2
GIS 3048 Applications Of Gis	2
DIE 4246 Clinical Nutrition	2
EEE 6765 Adv Embed Sys & IoT	2
ENG 5907 Independent Study	2
EEL 2880 C Prog Emb Sys	2
ENT 4113 Entrepreneur: New Bus Develop	2
HFT 2401 Accounting for Hosp	2
DIE 4564 Dietetics Research	2
EEL 4213L Energy Convrg Lab	2
EUH 2030 West Civ: Mod/Eur	2
HFT 3941 Intern Hsptly Mgmt	2
EVR 5355 Env Resource Policy	2
EEL 4730 Programming Embedded Systms	2
EVR 5907 Independent Study	2
HFT 4945 Adv Intern Hsptly	2
EVR 6268 RS Hydro	2
HMG 5901 Independent Study	2
EXP 3523 Memory&Mem Improvmt	2
HMG 6280 Global Issues Hosp & Tour	2
FES 6847 Humanitarian Assis/Coord	2
HMG 6946 Graduate Internship	2
FES 6848 Disaster Health Readiness	2
HUM 1020 Intro to Humanities	2
FES 6858 Crisis Communications	2
IDS 3333 Diversity of Meaning	2
EEC 3204 Issues In Eec	2

IDS 4949 Internship in LS/IDS	2
FIN 4502 Securities Analysis	2
FIN 4663 Global Priv Banking	2
CHM 6910 Grad Research	2
ART 1201 2d Design	2
CIS 5208 Soc Econ Pol Asp Cyber	2
BCN 5738 Const Safety Mgmt	2
ARC 5621 Envir Systems in Arch 2	2
CES 4702 Reinforced Concrete	2
ART 5910 Research	2
CGN 4321 Gis Civil & Env Eng	2
DAA 1100 Modern Dance Tech I	2
BCN 5755 Const Fin Mgmt	2
ARC 5076 Form Stud 2	2
BCN 5905 Independent Studies	2
CCJ 6946 Internship Program	2
BCN 5949 Grad CM Internship	2
CHM 6936 Chem Colloquium	2
BCN 6971 Thesis	2
ACG 7906 Independent Study	2
ART 2400 Begin Printmaking	2
CIS 6931 Adv Info Processing	2
AFA 6920 AADS Graduate Colloq	2
CJE 3610 Crime Scene Investigation	2
BME 4230 Biomech Card Systems	2
CNT 4403 Computer Security	2
CGS 4854 Websitecongmt	2
COM 3601 Environmental Communication	2
CHM 1020 Chemistry & Society	2
COT 3100 Discrete Structures	2
BME 4800 Des Biomed Devices	2
BCN 5626 Const Cost Ana & Con	2
BME 4908 Senior Design Proj	2
CHM 6935 Graduate Seminar	2
BME 6421 Electrophysiology Phenom	2
BSC 4914 Student Research Lab	2
ARC 5467 Mat Meth of Const	2
ADE 6906 Dir Stud Ade/Hrd	2
ART 2750 Beginning Ceramics	2
BSC 4926 QBIC Evol Journal Club	2
ART 3310 Intermediate Drawing	2
CIS 5372 Fund of Computer Security	2
BME 6936 Biomed Eng Seminar	2
CIS 6970 Thesis	2
ART 3402 Interm Printmaking	2
ARH 4970 Art History Thesis	2
ARC 5555 Structures 3	2
CLP 4314 Psych Health & Ill	2
ART 4312 Advanced Drawing	2
CLP 6949 Adv Clinical Intern	2
CHM 3949 Chem/Biochem Internship	2
ADV 4300 Media Planning	2
ART 4403 Advanced Printmaking	2
COM 3120 Organizational Comm	2
CHM 4300 Bio-Organic Chem	2
COM 3940 Internship Experience	2
CHM 4307L Bio Chem Lab II	2
COM 4930 Spec Topics in Comm Arts	2
AGG 4941 Agriculture Internship	2
CYP 3003 Intro Commun Psy	2
BSC 3923 QBIC Ecology Journal Club	2
BCN 5618 Fund Const Est	2
ADE 7980 Ed.D. Dissertation	2
ART 2330 Begin Figure Drawing	2
CHM 6037 Advanced BioChem II	2
CCJ 2010 Criminology	2
ANT 2000 Intro Anthropology	2

CCJ 6079 Geospatial Crime Analysis	2
BME 6970 Master's Thesis	2
SPS 6193 Psy Ed As III	1
PHY 6935 Grad Research Sem	1
PAD 6907 Independent Study In	1
MVW 1311 Principal App Flute	1
PAD 6434 Lead And Decision	1
MVW 1413 Major Appl Clarinet	1
STA 3930 Special Topics	1
POT 3302 Political Ideologies	1
PCB 2099L Fnd. Human Phys. Lab	1
POW 4930 Special Topics	1
WST 4334 Queer Cinema	1
MVW 2325 Prin Appl Saxophone	1
PHI 4543 Metaphysics & Sci Fiction	1
PCB 4232 Bio Aids	1
SPW 6216 Golden Age Prose	1
PCB 4301 Freshwater Ecology	1
SYA 4011 Social Theory	1
PCB 4467 Marine Reserves	1
TCN 4940 Senior Project	1
MVW 3335 Prin Appl Saxophone	1
TPA 4913 Portfolio II	1
PCB 4561 Epigenetics	1
TTE 5607 Transp Demand Anal	1
PCB 4717 Topics in Physiol/Biochem	1
POS 6976 Research Seminar	1
NSP 3801 Interprofessional Course	1
PAD 6437 Dyn Of Indiv Grth	1
MVW 3970L Junior Rec Woodwind	1
PHI 4911 Research Paper	1
PSY 5938 CurrTopicsNeurosci	1
SPT 4807 Prac Business Tran	1
PCB 5025L Mol Biol Tech Lab	1
PHI 5937 Adv Topics: Phil of Relig	1
MVW 4345 Prin App Saxophone	1
SUR 2101 Surveying	1
PCB 5443 Adv Ecol:Com Ecosys	1
SYA 7941 Field Research	1
OTH 5845 Level II Fieldwork I	1
SYG 4060 Soc Of Sexuality	1
PUR 6005 Strat Comm Theory	1
PCB 2061 Intro Genetics	1
XDP 7000 PH.D. Student Exch.UM	1
TPA 3930 Spec Topics in Theatre	1
ZOO 4462 Herpetology	1
TPP 3310 Directing I	1
MVV 2421 Major Applied Voice	1
TSL 5938 Prin Of Esol Testing	1
OTH 5846 Level II Fieldwork II	1
PHZ 5340 Particl Interact and Detect	1
PET 3325L Anat Ex Spt Sci Lab	1
POS 4941 Legis Internship	1
QMB 6357 Business Statistical Anal	1
PHC 7908 Hlth Sys Readings 1	1
PET 4251 Sociology Of Sport	1
SPN 2330 Adv Spanish Reading	1
RCS 6031 Reh Coun:Prin & Prac	1
PHI 2103 Critical Thinking	1
RCS 6821 Supervised Field Exp	1
PHI 4910 Independent Research	1
NGR 6602 Adv Fam Hlth Nsg II	1
SPN 5993 Humanities Internship	1
RED 5339 Subj-Related Rdg	1
SPS 6941 Practicum	1
MVV 3431 Major Applied Voice	1
SPW 4390 Genre Studies	1

PET 6944 Sup Field Exp	1
SRK 2101 Sanskrit II	1
NGR 6490 Reg Anes	1
STA 3112 Statistics II	1
REL 3020 Meditation/Spiritual	1
STA 4905 Independent Study	1
REL 3111 Religion In Film	1
SYA 3400 Intro Quant Soc Research	1
REL 3127 Church And State	1
SYA 6317 Soc Res Quant Methods II	1
REL 3185 Healers & Mediums	1
PHT 6164 Neuro Dx & Mgt II	1
PGY 2401 Beginning Photography	1
SYG 2010 Social Problems	1
REL 3316 Healing in Asian Rels	1
PAD 7703 Empirical Methods	1
REL 3330 Religions Of India	1
PAD 7865 Development Admin	1
PGY 2800 Beg Digital Photography	1
PHY 1033 Physics Pathways	1
NGR 6708 Classrm Teach Strat	1
TPA 3045 Costume Design I	1
RLG 5263 Nt Greek Exeg II	1
TPA 4297 Adv Tech Proj II	1
RLG 5331 Religions Of India	1
PHY 6524 Statistical Physics	1
RLG 5388 Latinas' Religious Exp	1
PHY 6716 Advanced Biophysics	1
PGY 3410 Int. Photography	1
TSL 5142 Curr Dev Esl	1
RLG 5937 Special Topics	1
MVW 3333 Prin App Clarinet	1
RLG 6935 Sem Sacred Texts	1
PHZ 5156 Comput Phys I	1
PGY 3822 Int Digital Photography	1
POR 3440 Business Portuguese	1
RTV 3007 Intro To Television	1
POS 3424 Legislative Process	1
RTV 3511 Video Studio Prod	1
POS 5909 Independent Study	1
NGR 6461 Pharm Anes II	1
PHC 7732 Res Eth & Sci Int	1
PGY 4412 Advanced Photography	1
MVW 3331 Principal App Flute	1
PAD 4046 Values Ethics Morali	1
SPN 2210 Oral Communication	1
PGY 4823 Adv Digital Photo I	1
SPN 3013 Lang Skills Prof Per	1
RTV 6309 Vis Story and Prod	1
SPN 3343 Adv Spn Herit Spks	1
RTV 6468 Studio Pdctn Pract	1
PAD 6718 Smart Governance	1
PHC 4940 Internship in Disaster	1
SPN 3444 Span Bus Lat Am	1
PAD 4905 Indep Sty In Pub Adm	1
SPN 4520 Latin Am Culture	1
MVW 4971L Senior Rec Woodwind	1
SPN 4993 LATAM PODCAST	1
SDS 4403 Fac Comm Helping Skills	1
NGR 6302 Ad Cld Hlth NsgPr II	1
PHC 6311 Env Hlth Risk Assess	1
PHI 4932 Special Topics: Aesthetics	1
MVW 5451 Major Applied Flute	1
SPT 3812 Found Interpreting	1
NGR 5905 Indep Study In Nsg	1
SPT 4941 Prof T/I Intern	1
PHC 6312 Hlth Impact Pollution	1

SPW 5556 Spn Realism & Nat	1
PHC 6329 Biomarkers	1
PHI 4945 Philosophy Internship	1
PHC 6383 Neurobehav Tech	1
SRK 5006 Sanskrit IV: Adv Rdg	1
SMT 2662 STEP 2 Lesson Math and Sci	1
STA 2122 Stat for Behav Scien I	1
SMT 3100 Know and Learn Math and Sci	1
PHM 4041 Thought/Community/Inquiry	1
NSE 3991 Natl Student Exch-A	1
PAD 6726 App Res Acct Pub	1
PHC 6730 Neurotox Res Meth	1
STA 6971 Thesis Research	1
SMT 4664 Prob Based Instr Math-Sci	1
SWS 5305 Adv Soil Resources	1
SMT 4944 Advanced LA Intern 2	1
SYA 3949 Internship	1
SMT 4946 Learning Assist Intern 1	1
SYA 5909 Direct Individ Study	1
SMT 6120 Issues in STEM Ed Rsrch	1
PAD 6807 Urb Mun Govt Admin	1
SOP 3932 Psy Of Drugs & Abuse	1
PHT 5960 Comprehensive Exam I	1
SOP 4731 Global Psychology	1
PAD 6838 Develop Admin	1
PAD 4940 Internship	1
NGR 6424 Prin Anes IV	1
SOW 4511 Practicum I	1
SYG 3002 Basic Ideas Of Soc	1
SOW 4512 Practicum II	1
OCB 4005 Oceanog at Sea II	1
SOW 4522 Field Seminar I	1
TCN 4212 Telenet Analys Des	1
SOW 4523 Field Seminar II	1
TCN 6275 Mobile Computing	1
SOW 5532 Field Practicum I	1
OCB 4070 Coastal Conservation	1
SOW 6533 Field Practicum II	1
PCB 2061L Intro Genetics Lab	1
SOW 6534 Field Practicum III	1
PHY 3106 Modern Physics	1
SOW 6711 Addiction Prev	1
TPA 2332 Costume Technology	1
PAD 5934 Contemp Issues Pad	1
TPA 3296 Adv Tech Proj I	1
SOW 7238 Macro Theor Res	1
TPA 4061 Scenic Design II	1
PHC 6921 EHS seminar	1
NSE 3992 Natl Student Exch-B	1
PAD 6227 Pub Fin & Bdgt Prcs	1
TPP 2100 Intro To Acting	1
SPA 5009 Norm Comm Dev	1
TPP 3165 Th Voc & Mvt IV	1
SPA 5012 Intro CSD	1
TPP 3730 Dialects	1
PAD 6399 Homeland Security SLG	1
TPP 4311 Directing II	1
SPA 5051 Clin Obs and Procedures	1
MVW 3332 Principal Appl Oboe	1
SPA 5102 Adv Human AP Comm	1
TSL 5361 Tesol Sec Teachers	1
SPA 5113 Adv Appl Phonetics	1
TSL 6375 Esol Pron	1
SPA 5150 Acoustics Sph and Hg	1
TTE 5273 Intel Transp System	1
SPA 5262 Ling for Speech-Lang Path	1
PHZ 3361 Radiation Detection	1

SPA 5403 Lng Lrn Sch-Age Chl	1
VIC 4001 News Visualization	1
SPA 5500 Basic Clin Prac	1
WOH 3266 British Empire	1
SPA 6005 As & Trmt Bilng Chld	1
PCB 3063 Genetics	1
PHC 7011 Advanced Epidemiology	1
WST 4504 Feminist Theory	1
PHC 7198 Adv Qual in PH	1
POS 4905 Independent Study	1
SPA 6938 Topics Spch Path	1
WST 5507 Feminist Theory	1
PHC 7381 Neuroscience	1
WST 5935 WST Special Topics	1
SPC 2300 Fund of Interpersonal Com	1
PHC 7731 Adv Neurotox Res Meth	1
PUR 6477 Strategic Facilitation	1
ZOO 4513L Animal Behavior Lab	1
PUR 6508 Social Media Metrics	1
PUR 6625 Digital Media Mgmt.	1
INR 3251 African Development	1
MUT 3363 Jazz Ear Training	1
MUN 3313 Concert Choir	1
ISM 4151 Manage Digital Srvc Innov	1
LBS 4483 Organizational Conflict	1
LAS 5931 Special Topics in LACS	1
MUM 5705 Adv Bus Of Music	1
LIN 6510 Syntax I	1
MUN 5715 Studio Jazz	1
LAS 6905 Lac Dir Rsch	1
MVB 4443 Major Appl Trombone	1
LIN 6910 Res Proj for Pub I	1
MVK 2321 Prin App Piano	1
LIN 6934 Special Topics Lin	1
ISC 5151 Earth/Env Grad Seminar	1
LIT 3930 Special Topics	1
MUN 1430 Univ Brass Choir	1
LIT 6970 Master's Thesis	1
MUN 4483 Guitar Ensemble	1
MAA 6616 Real Analysis	1
LAW 7955 WAMR	1
MAC 2241L Calc 1 Lab Biology	1
MVB 3331 Prin Applied Trumpet	1
MAC 2242L Cal 2 Lab Biology	1
MVJ 2310 Prin App Jazz Piano	1
LAS 6934 Lac Research Sem	1
MVJ 5450 Maj App Jazz Pno	1
LAS 6942 Lac Internship	1
MVK 5451 Major Applied Piano	1
LAS 6970 Thesis	1
MUG 6309 App Orch Conducting	1
LAH 4932 Topics In Lat Am His	1
MUM 4802 Music Admin History	1
MAE 5908 Dir Stud Math Ed	1
MUN 1100L FIU Marching Band	1
LAW 6106 Death Penalty Clinic	1
MUN 2480 Guitar Ensemble	1
MAN 3949 Mgt Internship I	1
MUN 3713 Studio Jazz	1
LAH 2020 Latin American Civ	1
MUN 5315 Concert Choir	1
MAN 4330 Comp & Benefits	1
MUO 4502 Opera Workshop	1
MAN 4600 International Mgmt	1
LAW 7959 Mediation Comp	1
INR 4926 Model United Nations	1
MVB 1314 Prin App Bariton Ho	1

LAW 6425 Construction Law	1
MVB 3434 Maj Appl Bariton Hor	1
ISM 4949 Info Systems Internship II	1
MVJ 1310 Prin App Jazz Piano	1
MAN 4771 Executive Skills Dev	1
MVJ 2427 Maj App Jazz Trumpet	1
MAN 4946 Int'L Bus Internship	1
MVJ 4445 Maj App Jazz Drms	1
MAN 4949 Mgt Internship II	1
MVK 1213 Sec Applied Organ	1
MAN 6245 Org Behavior	1
LBS 5488 Org Conflict & Dispute Res	1
INR 4943 Intern Inr Affairs	1
MVP 3970L Junior Rec Percussio	1
INR 5906 Independent Study	1
MUG 5205 Grad Choral Cond	1
LAW 6430 Wills and Trusts	1
JRM 6083 Con & Comm Lending	1
ISM 6404 Bus Data Vis & Report	1
LAA 5381 Comp Practice LSCP ARCH 3	1
MAN 6635 Global Strategy	1
MUM 4814 Leadership in the Arts	1
MAN 6657 Contextual Intel in IB	1
MUM 5808 Grant Writing Arts	1
MAN 6678 Global Start-up	1
MUN 1210 Orchestra	1
MAN 6891 Leadership Dev I	1
MUN 1710 Studio Jazz	1
LAW 6723 Community Lawyering	1
MUN 2720 Jazz Vocal Ensemble	1
MAN 7207 Theories Of Org	1
LAA 6215 Prof Prac Lscp Arch	1
LAW 6823 Law Prac Tech	1
MUN 4143L Symphonic Wind Ens	1
ISC 1056 First Year Sem Earth Env	1
MUN 4723 Jazz Vocal Ensemble	1
LAS 3002 Intro Lat Am and Carib Stdy	1
MUN 5477 Collegium Musicum	1
LAW 6943 Immigration Clinic	1
MUN 5725 Jazz Vocal Ensemble	1
ISM 7345 Org and Strategic IS	1
MUS 1010 Recital Attendance	1
INR 3502 Intl Organizations	1
LAA 6936 Special Topics	1
LAW 6945 Criminal Externship Placement	1
INR 3246 Intl Rel/Caribbean	1
MAP 2302 Differential Equat	1
MVB 1312 Prin Appl French Hor	1
MAP 4215 Stoch Differential Equations	1
MVB 2321 Prin Applied Trumpet	1
MAP 4401 Adv Diff Equations	1
MVB 3335 Prin Applied Tuba	1
MAP 6218 Stochastic Calculus	1
MVB 4341 Prin Applied Trumpet	1
MAP 7359 Topics in PDE	1
LBS 4210 Women And Work	1
ISM 7931 Organizational Theories	1
MVJ 1313 Prin App Jazz Guitar	1
MAR 4333 Promotion Strategy	1
MVJ 2323 Prin App Jazz Guitar	1
INR 4013 Dev Inr Thought	1
MVJ 3432 Major Applied Jazz Voice	1
MAR 4400 Personal Selling	1
MVJ 4443 Maj App Jazz Guitar	1
MAR 4403 Sales Management	1
LBS 5215 Women in Workplace	1
LAW 6948 Business Tech Clinic	1

MVJ 5455 Maj App Jazz Drms	1
LAS 4931 Special Topics in LACS	1
MVK 1411 Major Applied Piano	1
MAR 4712 Health and Fitness Marketing	1
MVK 3331 Prin App Piano	1
ISS 3613 Issues in Global Policy	1
LEI 3703 Intro to Rec Therapy	1
LAW 6950 Law Review: Board of Editors	1
MVP 2321 Prin App Percussion	1
MAR 4907L Ind Stdy Mkg Rsch	1
MVP 4971L Senior Rec Percussio	1
ISS 3999 SIPA Internship	1
MUG 4202 Choral Conducting	1
MAR 6205 Omnichannel MKTG DIS STM	1
MUG 5307 Appl Wind Conducting	1
ISS 4651 Topics in Cyber Policy	1
MUH 2022 History of Rock Music	1
ISS 5309 Visual Methods	1
MUH 4680 Music History Seminar	1
ISS 6305 Res Meth and Design	1
MUM 3602 Audio Techniques II	1
INR 6975 Thesis	1
MUM 4301 Business Of Music	1
ISS 6994 Leadership Dynamics	1
MUM 4803 Grant Writing Arts	1
ITA 3421 Rev Gram/Writing II	1
LAA 5422 Lscp Development	1
LAW 6956 Law Review: Senior Members	1
MUM 5726 Live Music Oper II	1
MAR 7849 Motivation & Emotion	1
MUM 5946 Perform Arts Intern	1
MAR 7875 Cons Welfare & Wellbeing	1
MUN 1140L Symphonic Wind Ens	1
JOU 4341 Sr Multimedia Prjt	1
MUN 1310 Concert Choir	1
MAS 4310 Algebraic Geometry	1
LAA 5425 LSCP Documentation	1
MAT 4510 Problem Solving Seminar	1
MUN 1790 Latin Jazz Ensemble	1
MAT 4905 Independent Study	1
LAA 5940 LSCP Arch Intern	1
MAT 4934 Senior Math Seminar	1
MUN 3024 Laptop Ensemble	1
MAT 5907 Independent Study	1
MUN 3433L Univ Brass Choir	1
JOU 6118 Investigative Journalism	1
MUN 3474 Collegium Musicum	1
MVS 3433 Major Applied Cello	1
MUN 3793 Latin Jazz Ensemble	1
MVS 3970 Junior Rec String	1
MUN 4213 Orchestra	1
MVS 4341 Prin Applied Violin	1
LAS 5907 Independent Study	1
MVS 4443 Major Applied Cello	1
MUN 5215 Orchestra	1
MVS 4446 Major Applied Guitar	1
ISC 6152 Earth/Env Adv Grad Sem	1
JOU 6931 Sem Spcl Topics	1
MUN 5485 Guitar Ensemble	1
MVS 5356 Principal App Guitar	1
ISC 6153 Envrionments Changing	1
INR 4085 Gender Hierarchies IR	1
MUN 5795 Latin Jazz Ensemble	1
LAW 6957 Law Review: Staff	1
MUO 5505 Opera Workshop	1
LAW 6958 Board of Advocates	1
MUS 3040 Recital Attendance	1

LAW 6984 Judicial Externship Placement	1
LAA 6905 Independent Study	1
LAW 7930 Special Topics	1
MUS 5527 Laptop Ensemble	1
MMC 3303 Global Media and Society	1
LAE 4367 Navigating Theory & Pract	1
INR 4082 Islam In Int'L Rels	1
MUT 3171 Jazz Theory II	1
MMC 4200 Law And Ethics	1
MVB 1311 Prin Applied Trumpet	1
MMC 4302 Social Media and Audience	1
MVB 1313 Prin Appl Trombone	1
MMC 4905 Independent Study	1
MVB 1315 Prin Applied Tuba	1
LAW 7942 Prosecution Inn. Project	1
MVB 2322 Prin Appl French Hor	1
MMC 4941 JOU + Media Internship	1
MVB 3333 Prin Appl Trombone	1
MMC 4944 SFMN Bureau Experience	1
MVB 3431 Major Appl Trumpet	1
MMC 4945 Com Internship	1
LBS 4150 Contmp Labor Issues	1
MMC 5409 SHERCom	1
MVB 4342 Prin Appl French Hor	1
MMC 5932 Special Topics	1
MVB 4445 Maj Applied Tuba	1
MMC 6257 Media Mgt and Entrep	1
MVJ 1011 Principle Applied Jazz Voice	1
MVS 1412 Major Applied Viola	1
MVJ 1311 Prin Jazz Drums	1
MVS 1414 Major App Dble Bass	1
MVJ 1412 Major Applied Jazz Voice	1
LAW 7944 Adv Leg Clinic	1
MVJ 2321 Principle Applied Jazz Voice	1
MVS 2421 Major Applied Violin	1
MVJ 2424 Maj App Jazz Bass	1
MVS 2423 Major Applied Cello	1
MVJ 3334 Prin App Jazz Bass	1
LAE 5908 Dir Stud Eng Ed	1
MVJ 3435 Maj App Jazz Drms	1
MSL 3202L Leader/Ethics Lab	1
MVJ 4341 Principle Applied Jazz Voice	1
MSL 4302 Officership and Leadership	1
MVJ 4444 Maj App Jazz Bass	1
MSL 4302L Officer Leader Lab	1
MVJ 4446 Maj Applied Jazz Sax	1
MSL 4400 Us Military History	1
MVJ 5150 Jazz Piano Tech	1
MUC 1342 Music Tech Fundamentals	1
MVJ 5453 Maj App Jazz Guitar	1
MUC 2221 Composition Sem. I	1
MVK 1211 Sec Applied Piano	1
MUC 2222 Composition Sem. II	1
MVK 1311 Prin App Piano	1
MUC 3232 Composition Sem IV	1
MVK 2180L Keyboard Harmony	1
MUC 3302 Elec Music Lab II	1
MVK 3136 Cls Jazz Pno II	1
MUC 4241 Composition Sem V	1
MVK 3431 Major Applied Piano	1
MUC 4404L Advanced Music Tech	1
MVK 4343 Prin App Organ	1
MUC 4611 Doc Film Scoring Fund	1
MVK 5253 Sec Applied Organ	1
MUC 4932 Composition Forum	1
MVP 1411 Major App Percussion	1
MUC 6306L Elec Mus Lab II	1

MVP 3331 Prin App Percussion	1
MUE 2450L Woodwind Techniques	1
MVP 4441 Major App Percussion	1
MUE 3411 Choral Methods	1
MVS 1316 Principal App Guitar	1
MUE 4940 Stud Tch In Mus Ed	1
ISE 4991 Study Abroad IHE	1
MUE 6910 Directed Research	1
MVS 1416 Major Applied Guitar	1
MSL 1002 Basic Leadership	1
MVS 2326 Principal App Guitar	1
MSL 1002L Basic Leadership Lab	1
MVS 2422 Major Applied Viola	1
MSL 2102 Leadership/Teamwork	1
MVS 3331 Prin Applied Violin	1
MSL 2102L Leader/Teamwork Lab	1
MSL 3202 Leadership/Ethics	1
MVS 4241 Secondary App Violin	1
MAT 7981 PhD Dissertation	1
MVS 4343 Prin Applied Cello	1
INR 4075 Int Prot Hum Right	1
MVS 4444 Major App Dble Bass	1
MVS 5454 Major App Dble Bass	1
MVS 4541 Orch Audition Rep	1
MVS 5456 Major Applied Guitar	1
MVS 5351 Prin Applied Violin	1
MVV 1311 Prin Applied Voice	1
MVS 5452 Major Applied Viola	1
INR 3227 INR South Asia	1
MET 5105 Climate Process and Impact	1
MVS 5545 Orch Audition Rep	1
MET 3502L Synoptic Meteor Lab	1
MVV 2321 Prin Applied Voice	1
MET 4937 Senior Seminar Atmos Scien	1
MET 4941 Meteorology Internship	1
EML 3126 Transp Phenon	1
HUN 2201 Principls Nutrition	1
EDE 4936 Snr Sem In Elem Ed	1
ENC 1930 Essay Writing	1
GLY 3782 Geology Excursion	1
EDG 5417 Fun of Learning	1
HFT 3754 Intro to Events Mgt.	1
EGM 3503 Applied Mechanics	1
EML 5615 Cad - A/C	1
ENC 3311 Adv Writing & Res	1
IDS 4232 Sustainability in Action	1
ENC 3334 Intro Writing Studies	1
GRA 2106 Typography	1
EGM 3520 Eng Mecha Of Materia	1
EEX 6535 Sem Sp Ed Sup Lead	1
ENC 3363 Writing about Environment	1
EML 4804 Intro Mechatronics	1
EDG 7667 Adv Topics Curr Stud	1
HIS 6942 Public Hist Intern	1
ENC 3378 Writing Across Borders	1
HMG 6630 Evt Safety & Sec Plan	1
EEL 6787 Network Security	1
EML 6971 Masters Thesis	1
ENC 3492 Interdisciplinary Writing	1
IND 5939 Design Thinking	1
EGM 4350 Fea In Mech Engr	1
GLY 5655 Topics in Paleobio	1
ENC 4355 Writing About Film	1
GRA 4189 Thesis I/Portfolio	1
ENC 4356 Writing Exile Experience	1
HFT 3066 The Art and Science Winemakng	1
ENC 4930 Special Topics Comp	1

HFT 3727 Travel Indus Law	1
ENC 5494 Writing Center Theory	1
EEL 4611 Control Systems II	1
EGM 5351 Finite Element Method	1
HFT 4507 LAW ETH IOT	1
EGM 5354 Fem In Me	1
HIS 4941 History Internship	1
EDH 6047 College Stdnt Life	1
EML 5505 Smart Mach Des Dev	1
ENG 5058 Form And Theory	1
HMG 6476 Feas Study Hosp Indu	1
EGM 6422 Adv Comp Analysis	1
EEX 6765 Inst Tech Spec Ed	1
ENG 6942 Coll Comp Practicum	1
IDC 1000 CS for Everyone	1
ENL 4322 Shakespeare:Tragedie	1
IDS 3212L Science and Global Life Lab	1
EDH 6051 Leadership In He	1
IND 2238 INT Design 4	1
EGN 1110 Engineering Drawing	1
EDG 1001 FTCE - GK Prep	1
INR 3045 Refugees & Migrants	1
GLY 4937 Senior Seminar Geol Scien	1
INR 3061 Conflict Security	1
EEX 3070 Teach Exc Incl Set	1
EDH 6055 Acc Choice Higher Ed	1
GRA 2151 Illustration	1
EGN 2271 Intro to Cir. & Elec. HW	1
GRA 4940 Internship	1
ESI 3215 Eval Engr Data I	1
DIE 6576 Project Diet Nutr	1
EGN 3613 Engineering Economy	1
EEL 4015 Elec Des In Bldg I	1
EUH 4286 Topic-European His	1
HFT 3701 Sus Tourism Pract	1
EUH 6933 Rsch Europe Hist II	1
EML 3450 Energy Systems	1
EDH 7401 He And Public Policy	1
HFT 3795 Festival Management	1
EDH 7964 Doctoral Candidacy Exam	1
HFT 4222 Hum Res Dev & Tr	1
EVR 1017 Global Env & Soc	1
EEX 6756 Families w Disabilities	1
EVR 3010 Energy Flow	1
HFT 4809 Mgmt Fdserv Indust	1
EVR 3011 Evr Sci-Pollution	1
HIS 4091 History Through Things	1
EVR 4112 Climate Change Policy	1
HIS 6059 Historical Methods	1
EVR 4274 Sustainable Agricul	1
HMG 5547 Train Team Bldg	1
EVR 4323L Restoration Ecology Lab	1
HMG 6228 Manag Self/Others	1
EVR 4356 Coastal Marine Enviro Pol	1
HMG 6466 Hosp/Tour Rev Mgt	1
EVR 4592 Soils & Ecosystems	1
HMG 6486 Investment Anal Hosp	1
EVR 4592L Soils & Ecosyst Lab	1
HMG 6932 Adv Special Topics in HM	1
EVR 4920 Env Studies Senior Seminar	1
EML 6935 Graduate Seminar	1
EVR 4941 Undergrad Intern Env Stud	1
HUN 4701 Nutrigenomics	1
EGN 3945 Coop Ed in Eng	1
EEL 4930 Sp Top Elec Eng	1
EVR 5409 Adv Conservation Biology	1
IDS 1273 First Yr Sem Sustain	1

EGN 3999 CENGR Internship	1
EML 7939 Ph.D. Seminar	1
EGN 4944 ID Capstone Des Proj II	1
EEX 6906 Dir Stud Spec Ed	1
EVR 6377 Nat Res Conserv and Policy	1
IND 5645 Structures 1	1
EVR 6950 Graduate Seminar	1
IND 5993 Marine vessel design	1
DIE 4963 Comp Dietetic Exam	1
GLY 3039 Environ Geology	1
EVR 6971 Master's Thesis	1
GLY 4822 Intro Hydrogeology	1
EDH 7983 Dissertation Proposal Sem	1
GLY 4947 Internship in Geoscience	1
EGN 5439 Design of Tall Bldg	1
GLY 5786 Adv Field Excursion	1
EXP 5508 Applied Cog Psych	1
ECO 3203 Intermed Macroecon	1
EXP 5667 Cog Neuroscience	1
GRA 2111 Graphic Design I	1
FES 1950 Intro Portfolio Dev	1
GRA 3817 Graphic Design II	1
FES 3951 Prior Learning Assessment	1
GRA 4818 Graphic Design III	1
ECO 7206 Macro Theory I	1
ECO 3949 Co-Op Ed In Eco	1
EGN 6900 Meth Prac Eng & Comp Edu	1
ECO 4465 Quantitative Economics	1
EGN 7918 Graduate Research	1
EEL 3370 C++ Prog Emb Sys	1
FIL 4940 Intern Film Studies	1
EML 3222 Systems Dynamics	1
DIE 6368L Adv Tech Diet Prctse	1
HFT 3271 Nightclub Management	1
EGN 7980 Dissertation Res	1
EEL 4413L Wave-Propagation	1
FIN 4303 Financial Mkts & Ins	1
HFT 3713 Internl:Travl+Touris	1
EGS 1006 Intro To Engineering	1
HFT 3735 Dest & Cultures	1
EGS 1041 Tech, Humans and Soc	1
HFT 3753 Conv & Trd Shw Mgmt	1
FIN 4651 Lat Am Fin Mkt & Ins	1
HFT 3791 Social Event Planning	1
IND 6906 Independent Study	1
HFT 3900 Independent Study	1
EEL 5935 Adv Spec Topics	1
EML 4551 Ethics Dsn Proj Org	1
EGS 2030 Ethics/Legal Aspects	1
EEL 4658 Indus Control Systems	1
EGS 2053 Foundations of IDE	1
EML 4840 Robot Design	1
FIN 6525 Portfolio Mgt	1
HFT 4504 Hosp/Tour Internet	1
FIN 6537 Fin Fut & Fixed Inc	1
HFT 4802 Catering Mgmt	1
EGS 3060 ENGR Prof. Development	1
HFT 4932 The David Grutman Experience	1
FIN 7856 Financial Econ II	1
HIS 3051 Jun Sem: Approaches Hist	1
EAS 4105 Intro Flight Mech	1
HIS 4908 Independent Studies	1
FLE 4314 Meth FI Elem Sch	1
EEL 4740 Embedded System	1
FLE 5908 Dir Stud For Lang	1
HIS 6918 Rsch Atlantic Civ	1
FOL 3930 Special Topics	1

DIE 6937 Graduate Seminar	1
EEC 6261 Ed Prog For Young Ch	1
EML 4949 Co-Op Wk Experience	1
EEC 6971 Thesis Early Child	1
HMG 6001 Event Feasibility	1
FOT 3511 Latin Cinemas	1
ECO 4703 Int Trade Theory	1
ECP 3451 Law And Economics	1
HMG 6464 Segment and Price Opt	1
FRE 2241 Interm Fr Convers	1
HMG 6475 Demand Management	1
FRE 3410 Adv French Conv	1
HMG 6478 Restaurant Develop.	1
FRE 4503 La Francophonie	1
HMG 6607 Hosp Real Estate Develop	1
FRW 3101 Francophone Lit and Culture	1
EML 6805 Adv Dgn Of Robots	1
ECO 2013 Principles Macroeco	1
EDF 1005 Intro To Education	1
ECS 3021 Women Econ Devel	1
HSC 7935 Doctoral Seminar HSR	1
EGS 6057 Equity in STEM Education	1
ECO 4903 Undergrad Seminar	1
EEE 3396 Solid State Devices	1
HUN 4404 Nutr PA Special Pop	1
GEB 2011 Intro To Business	1
HUN 7523 Community Nutrition	1
ECO 7426 Econometrics III	1
IDC 6940 Capstone-DS	1
EDA 6905 Dir Stud Ed Ldrship	1
EEL 4933 Eng Entrepreneurship	1
GEO 3001 Geograph Global Change	1
ECO 4932 Topics In Theory	1
GEO 4391 Marine Geography	1
IDS 3212 Science and Global Life	1
GEO 4905 Independent Study	1
IDS 3315 Gaining Global Perspectives	1
EDA 6943 Admin Internship	1
EEL 5426 RF Circuit Design	1
EEL 6812 Adv In Neural Nets	1
EEL 6261 Power Sys Engrg	1
EEE 6399 Electronic Prop Mat	1
IHS 6948 FIU BHWET	1
GIS 2000 Cartogr, Mapng in Geograp	1
IND 5509 Personal Brand	1
EIN 6908 Independent Study	1
IND 5645L Structures 1 Lab	1
ECO 7705 International Trade	1
IND 5948 Grad Internship	1
GLY 1010 Physical Geology	1
EEL 5669 Auto Sys and Controls	1
ECO 7716 International Money	1
EMA 6165 Polymer Physics	1
INR 2001 Intro To Intl Rels	1
FIN 4744 Financial Crime	1
FIN 4941 Fin Internship	1
INR 3081 Contem Intl Probs	1
ENV 4891 ENV Senior Design	1
ENV 4960 Environmental Eng Seminar	1
ART 3822 Creative Practice	1
CNT 6144 Adv IoT Analytics & Cloud	1
CIS 1940 Internship-Teaching CS	1
ATR 6556 Curr Plan & Develop in AT	1
CPO 4737 Transition and Human Rights	1
ATR 6855L Clinical Ed V	1
ART 4636 Advanced Video Art	1
ATR 6906 Ind Study/Thesis in AT	1

ART 5897 Grad Art Writing	1
ATR 7630 DAT Applied Scholarship I	1
ARC 4586 Structures 1	1
ACG 7938 Special Topics	1
ATR 5825L Clinical Ed II	1
BCH 6831 Intro Biochem Res	1
ART 4560 Figure Painting	1
BCH 7930 Biochem Graduate Seminar	1
ART 4940 Art Internship	1
BCN 2253 Bldg Construction Drawing	1
ART 5395 Grad Cassical Drawing	1
BCN 3720 Scheduling I	1
CNT 3162 Wireless Comm. for IoT	1
BCN 3730 Construction Safety	1
COM 3461 Intercultural Comm	1
BCN 3753 Fin Mgmt Const Org	1
COP 4610 Operating Syst Princ	1
BCN 3949 Industry Internship	1
CRW 6971 Creative Thesis	1
BCN 4564 Env Control II	1
ART 3666 Story Development	1
BCN 4612 Cost Estimating II	1
ART 4333 Advanced Figure Drawing	1
BCN 4724 Scheduling II	1
CHM 5263 Phy Organic Che	1
BCN 4910 Senior Project	1
ART 4768 Advanced Ceramics	1
ARC 5343 Arch Design 8	1
CHS 4591 Forensic Sci Intern	1
AFR 1121 Heritage and Values II	1
CIS 4911 Senior Project	1
AFR 2131 Team & Leadership Fund II	1
ART 5584 Grad Figure Painting	1
AFR 3230 Leading and Comm II	1
ART 5907 Directed Study	1
AFR 4210 Security, Res & Com Prep II	1
CNT 4165 Network Protocols for IoT	1
ARC 5582 Structures 1	1
ART 6971 Prosp & Exhib Prep	1
ARC 5582L Structures 1 Lab	1
COM 4310 Research Meth Comm	1
BCN 6788 Ai In Constr Mgmt	1
AFA 4372 Hip Hop Race Gen Sex	1
BCN 6910 Supervised Research	1
COT 5443 Opt. Com. Thr. & Appl.	1
AFS 3332 Gender Sexualities Africa	1
CRW 4930 Special Topics Crw	1
BME 1008 Intro to Biomed Eng	1
ATR 5218 Eval and Diagnosis II	1
BME 4011 Clinical Rotations	1
ART 3617 Intermediate Ex Video	1
ADE 6476 Computer Based Trng	1
ART 3760 Intermediate Ceramics	1
ARC 5941 Internship Experience	1
ANT 4930 Topics In Ant	1
BME 4260 Eng Hemodynamics	1
ARC 1172 Intro Comp Design 2	1
BME 4503 Medical Inst Design	1
ART 4615 Advanced Animation	1
BME 4531 Medical Imaging	1
CHM 5620 Graduate Inorganic Chem	1
ARC 5945 Architecture Internship	1
ART 4649 Intermed Digital Art Lab	1
ARC 6229 Theories of the Digital	1
AEB 4131 Farm Econ Management	1
BME 4912 Undergrad Research in BME	1
ART 4953 Thesis II	1

BME 4930 Undergrad Seminar	1
CHS 5542 Forensic Chemistry	1
BME 5411 Biomed Phys Eng II	1
CIS 3950 Capstone I	1
BME 5505 Med Imag Instr	1
ART 5135 Graduate Fibers	1
ARC 6761 Miami Urban Studies	1
ART 5408 Printmaking	1
AGR 4240 Mod Crop Pro	1
ART 5790 Ceramics	1
AGR 5241 Adv Mod Crop Pro	1
CLP 6472 Assessment and Treatment II	1
ARC 7980 Doctoral Project	1
AFA 2004 Black Pop Cult Global Dim	1
ARC 7981 Adv Research Methods	1
CNT 4149 Sensor/IoT Deep Learning	1
ACG 4401 Acctg Info Systems	1
CNT 4504 Advanced Network Management	1
BME 7938 Doctoral BME Sem	1
CNT 6154 Adv IoT Applied ML	1
ARE 5945 Practicum: Art Ed	1
COM 3230 Crisis Comm	1
BOT 1010 Introductory Botany	1
COM 3714 Fnd. of Comm.	1
ARE 6140 Curr Instruction Art	1
COM 4900 Dir Ind Stud in Comm Arts	1
BOT 4503 Plant Physiology	1
ASN 6912 Master's Essay in AS	1
BOT 5852 Medical Botany	1
COP 4005 Win Programming - It	1
BSC 2011 General Biology II	1
COP 5949 Coop Computer Sci	1
ARH 2051 Art Hist. Survey II	1
CPO 4034 Pol Devlpmt Underdev	1
BSC 2023 Human Biology	1
CRW 3111 Narrative Technique	1
BSC 2023L Human Bio Lab	1
CRW 5935 Special Topics Crw	1
BSC 2300 Biological Organization	1
CTS 1120 Fund of Cybersec	1
ARH 3511 Intro African Arts	1
CWR 5535 Adv Mod Wat Res Eng	1
BSC 3400 Wildlife Forensics	1
DAN 4910 Research	1
BSC 3915 Student Research Lab	1
ART 3638 Video Installation	1
ARH 4520 African Arts	1
ART 3710 Intermediate Sculpture	1
ARH 4534 Buddhist Art of Asia	1
ANT 3302 Sex, Gender, & Culture	1
BSC 4443 Func Genomics Prot	1
CHM 3410L Phys Chm Lab I	1
ARH 4710 Hist Of Photography	1
ART 4322 Adv. Classical Drawing	1
ARH 4713 Hist Photo Since 45	1
CHM 4230L Org Struc Detn	1
AGR 6251 Sustainable Farming Syst	1
ART 4505 Advanced Painting	1
ARH 5532 Beliefs Made Visible	1
ART 4566 Intmd. Fiber Based Art	1
BSC 4993L Computational Biology Lab	1
CHM 4993 Intro. to 3-D Learning	1
BSC 5446 Adv Func Genom Prot	1
CHM 5423 Atmospheric Chem	1
BSC 5927 WS: R For Biologists	1
CHM 5994 Learning Theories: 3DL	1
BSC 5931 Thesis Prop Seminar	1

CHM 6802 Research Ethics	1
ARH 5715 Hist Of Photo	1
ART 4711 Advanced Sculpture	1
BSC 5945 Teaching Biology	1
ART 4894 Writing Contemporary Art	1
ARH 5716 Hist Photo Since 45	1
CHM 6971 Thesis	1
ARH 5940 Internship Exper	1
ART 4952 Thesis I	1
BSC 6936 Topics In Biology	1
CHS 4503 Forensic Science	1
ADV 4800 Bold Practicum 2	1
CHS 5538 Chem Analysis Drugs	1
BSC 7961 Disser Proposal Sem	1
CHS 6111 Advanced Radiochemistry	1
AMH 4570 African-Amer Hist	1
CIS 3930 Special Topics	1
BSC 7982 Disser Defense Sem	1
CIS 4431 IT Automation	1
ART 2021 3D Animation	1
CIS 4951 Capstone II	1
CCJ 3941 Apprenticeship	1
CIS 5370 Principles of Cybersec	1
CCJ 4072 GIS and Crime Mapping	1
CIS 6930 Advanced Special Topics	1
CCJ 4940 Internship in CJ	1
ART 5580 Painting	1
CCJ 6025 Criminological Theory	1
ART 5677 Video Art	1
ART 2025 2D Animation	1
CLP 4146 Psychopathology	1
CCJ 6675 Research on Human Rights	1
CLP 6060 Affective Bases	1
CCJ 6741 Advanced Data Analysis	1
CLP 6530 Dissem and Implement Research	1
CCJ 6915 Supervised Research	1
CLP 6948 Clinical Internship	1
AMH 4588 Latina/o History	1
CNT 3143 IoT Analytics & Cloud	1
AMH 6933 Rsch Amer Hist II	1
CNT 4147 IoT/Sensor Data Analytics	1
AML 4612 Lit of Harlem Renaissance	1
CNT 4153 Applied Machine Learning	1
CDA 3102 Computer Architecture	1
ART 5940 Advanced Art Internship	1
CDA 3104 Intro. to Computer Design	1
CNT 4513 Data Communications	1
AML 5505 Periods Amer Lit	1
CNT 6150 Adv Sensor/IoT Deep Learn	1
CEN 4083 Cloud Computing	1
ART 6939 Grad Art Sem II	1
ART 2602 Digital Imaging	1
ASH 4384 Hist/Women In Asia	1
CES 4605 Steel Design	1
COM 3417 Com in Film	1
ART 2608 Digital Media	1
ASH 4404 History of China	1
CGN 2161 Career Orientation in Civil En	1
ASN 3200 Asia Through Films	1
ART 2622 Intro Video Art	1
ASN 3202 Japanese Anime and Manga	1
CGN 4802 C E Sr Design Proj	1
ASN 3993 K-Pop and J-Pop Culture	1
ART 2648 Intro Digital Art Lab	1
AFA 4370 Global Hip Hop	1
CGN 4949 Co-Op Work Exp	1
COP 1000 Intro to Computer Programming	1

CGN 4980 Civil Engr Seminar	1
COP 3530 Data Structures	1
CGN 5930 Sp Top In Civil Eng	1
ARC 5176 Comp Prac In Des II	1
ART 2701 Beginning Sculpture	1
COP 4813 Web Applicatn Prog	1
ADV 6305 Media Planning	1
AST 3722L Observ Astron Lab	1
ART 3023 Intermediate Animation	1
CPO 3103 Politics Of W Europe	1
ADV 6503 Advanced Creativity	1
CPO 4057 Political Vio & Revo	1
ART 3314 Classical Drawing	1
CRW 3010 Forms and Practices	1
ART 3332 Intermediate Figure Drawing	1
CRW 4110 Writing Fiction	1
CGS 2060 Intro To Micro Comp	1
CRW 5130 Adv Fiction Wkshop	1
CGS 3095 Technology in the Global Arena	1
CRW 5940 Adv Ind Study Crw	1
CGS 3559 Using The Internet	1
CRW 6972 Creative Thesis Cont	1
CGS 4285 Appl Networking	1
CTS 4743 EnterpriseIT Troubleshoot	1
ADV 6805 Creative Strategy	1
CWR 5235 Open Channel Hydraul	1
CHI 3400 Interm Chi Conv	1
ATR 5316 Ther Interventions II	1
ART 3504 Intermediate Painting	1
DAA 2520 Tap Dance Techniques	1
ART 3560 Figure Painting	1
ATR 6548 AT Consulting	1
ART 3565 Begin Fiber Based Art	1
TOTAL	3697

Board Action Plan - Low Cost Course Materials

Report all institution's course title(s) and the number of section(s) 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 2020	
Total Number of Course Sections Offered	n = 7,823
Course Title(s) that Required or Recommended Course Materials for Less than \$20 per Credit Hour	Number of Section(s)
CHM 1045L Gen Chem Lab I	63
SPC 2608 Public Speaking	31
IDH 3034 Honors Seminar V	28
IDH 1001 Honors Seminar I	24
PSY 3024 Psych Career Development	23
CHM 1046L Gen Chem Lab II	21
PSY 3215 Psych Methods/Analysis II	18
ISM 3011 Info System Mgt	18
STA 2023 Stat Bus & Eco	16
MAN 3025 Organization & Mgmt	14
SLS 1510 Strategies for Success	13
LIT 1000 Intro to Literature	13
ENC 1101 Writing and Rhetoric I	12
ACG 3301 Acc Pln & Cont	12
MAR 4400 Personal Selling	11
AMH 2020 Amer Hist Since 1877	11
CCJ 2020 Criminal Justice	11
ZOO 4234L Gen Parasitology Lab	10
PHY 2048 Physics W/Calculus I	10
TSL 3080 Esol Prin/Prac I	9
MAN 4600 International Mgmt	9
FIN 3403 Financial Management	9
EDF 1005 Intro To Education	9
MAR 6805 Mkg Mgt In Glob Env	8
EEX 3070 Teach Exc Incl Set	8
BUL 4310 Legal Environ Bus	8
ANT 3241 Myth-Ritual-Mysticis	8
SPN 1131 Spanish II	7
PEM 2101 Found Of Fitness	7
SPN 1130 Spanish I	7
MAR 4613 Marketing Research I	7
HFT 3603 Hospitality Law	7
FIN 6644 Global Fin Strategy	7
EDP 3273 Child Devp	7
ENC 3249 Prof Tech Writing Comp	7
COM 3404 Nonverbal Communication	7
BSC 2010 General Biology I	7
POS 2041 American Government	6
PUR 4101 Digital Editing and Design	6
LAW 5792 Legal Skills & Values I	6
MAN 6347 Perf and Talent Mgmt	6
MAR 4156 Internatl Marketing	6
EDP 3004 Educational Psychol	6
EEL 2880 C Prog Emb Sys	6
ENG 2012 Approaches To Lit	6
EEL 3110 Circuit Analysis	6
EIN 5346 Logistics Eng	6
EVR 3013L Ecol S Fla Lab	6
CCJ 4497 Senior Capstone CJ	6
COP 2210 Programming I	6
CRW 3010 Forms and Practices	6
CHM 1020L Chem & Society Lab	6
RED 3313 Lang & Lit Dev	5
THE 2000 Theatre Appreciation	5
PHI 2600 Intro Ethics	5
PHY 2053 Physics W/O Calc I	5
PUR 6206 Ethics	5
WOH 2001 World Civilization	5
MAR 4144 Export Marketing	5
MAN 6805 Entrepreneurship	5
MAN 4633 MNC Strategy	5
MAN 6446 Negotiations	5
MAN 4720 Strategic Management	5

ENT 4113 Entrepreneur: New Bus Develop	5
HFT 4413 Hosp Analytics & Rev Mgt	5
HFT 1000 Intro to Hosp and Tour	5
EGN 3613 Engineering Economy	5
ECO 2023 Principles Microeco	5
ECO 2013 Principles Macroeco	5
COP 3530 Data Structures	5
CHM 2210 Organc Chem I	5
SYG 2000 Intro Sociology	4
SPC 4445 Comm for Effec Leadership	4
SOP 3015 Soc & Per Dev	4
PSY 4931 Senior Seminar	4
PHI 2010 Intro to Philosophy	4
SYD 3804 Sociology Of Gender	4
MAR 3023 Introduction to Marketing	4
MAN 6626 Int'L Hrm	4
ISM 6325 Ethical Hacking for Bus	4
MAN 6167 Ldrshp Global Env	4
LEI 3542 Prk Rec & Spt Mgt	4
MAN 6316 HR Analytics	4
ISM 4314 Project Management	4
INR 3403 International Law	4
ISM 6327 Protecting Digital Asset	4
LEI 3001 Leisure & Recreation	4
MAN 6157 Wellness Mgmt	4
MAN 4602 Intl Business	4
IDS 3309 How We Know What We Know	4
HLP 3722 Teach Elem Hlth/Pe	4
FRE 1130 French I	4
EDF 3251 Classrm Management	4
EEC 4211 Int Math and SCE EEC	4
GEB 6507 Finance for HR Prof	4
FIN 6326 Commercial Banking	4
EDG 3321 Instructional Decisions	4
EEE 5543 Random Signal Princ	4
EEC 4005 Early Child Ed Prog	4
HFT 3453 Operations Control	4
EIN 5359 Ind Fin Decisions	4
HFT 4464 Fin Anal Hosp Indust	4
EDF 4604 Cult & Soc Found Ed	4
EDF 5481 Foundations Ed Res	4
FIN 4604 Intl Fin Mgmt	4
CJE 3001 Professional Development	4
CPO 2002 Intro Comp Pol	4
COP 4338 Systems Programming	4
AMH 2010 Am.History:1607-1850	4
DEP 4164 Children's Learning	4
ARE 3313 Teach Elem Art	4
CLP 4146 Psychopathology	4
ASN 3410 Intro East Asia	4
CCJ 2010 Criminology	4
CCJ 4014 Criminological Theory	4
PHC 6315 Intro to Env Hlth Sci	3
PAD 6306 Pol Analy Prog Plan	3
QMB 6616 Process & Oper Analysis	3
POT 3013 Anct & Medv Pol Thry	3
SOP 3932 Psy Of Drugs & Abuse	3
POT 3302 Political Ideologies	3
POT 2002 Intro To Pol Theory	3
PHY 2049 Physics W/Calc II	3
PHC 6102 Intro to PH Policy	3
RED 4150 Teach Begin Read	3
MAR 4233 Social Media	3
ISM 6307 Mgmt of IS Function	3
MCB 3020 General Microbiology	3
JPN 1130 Japanese I	3
INR 3303 Foreign Policy	3
INR 3703 Inter Pol Econ	3
MAR 6336 Integrated Mkg Comm	3
INR 4013 Dev Inr Thought	3
MMC 4200 Law And Ethics	3
LEI 4724 Facilitation Techniques in RT	3
ISM 6316 Proj Mgmt Info Sys	3
INR 3030 Diplomacy	3

MAN 6677 Emerging Markets	3
INP 3004 Intro. Ind/Org Psy	3
MAR 4354 Marketing Yourself	3
MAN 4442 IB Negotiations	3
MAR 6646 Marketing Research	3
INR 3102 Amer Foreign Policy	3
MMC 3123 Writing Fundamentals	3
MAN 4771 Executive Skills Dev	3
NUR 4667 Nsg in Gbl Hlth Care Sys	3
MAN 6297 Labor & Conflict Mgt	3
ISM 6021 Mgmt Information Systems	3
EDH 6045 College Stud Dev	3
HSC 3537 Medical Terminology	3
FIN 4634 Intl Banking	3
EEL 6805 Adv Malware Reverse Eng	3
HFT 2220 Human Resources for Hosp	3
EDH 6061 History of Higher Ed	3
HUM 3306 History Of Ideas	3
EDF 3521 Education In History	3
EEC 3403 Sp Needs Ch & Fam	3
ENC 1102 Writing and Rhetoric II	3
EEC 4250 Cur Instr Early Chld	3
ENC 3311 Adv Writing & Res	3
HFT 2441 Hospitality Info Tech	3
EVR 3013 Ecology Of S. Fla	3
HMG 6586 Research & Stat Mthd	3
EEC 3242 Art in Early Child	3
FIN 6456 Quan Meth Fin Analys	3
COP 4710 Database Management	3
COM 4462 Conflict Management	3
COP 5614 Operating Systems	3
ASL 1010 ASL I	3
ANT 3212 World Ethnographies	3
CCJ 3666 Victimology	3
CEN 4010 Software Eng I	3
CLP 4134 Child Psychopatholog	3
CPO 3010 Comparative Polit	3
CEN 3721 Intro Human-Comp Interaction	3
CHM 2200L Survey Org Chem Lab	3
SOW 6425 Assess and Intervn	2
SSE 5381 Global Perspectives	2
PHC 6410 Hlth Beh & Pub Hlth	2
PHT 6009 Differential Diag	2
SOW 3313 SOW Prac with Fam/Ind	2
POS 3424 Legislative Process	2
SPC 3271 Rhetoric and Public Address	2
PHT 6125 Clinical Biomechanics	2
SPW 4930 Special Topics	2
POS 4784 PS Analytic Writing	2
SYA 4010 Class Trad Soc Thry	2
PHT 5523 Dimensions Sem I	2
SOW 3403 Social Wk Research	2
TPP 2161 Theatre Voice Mov II	2
PCB 4414 Behavioral Ecology	2
PHM 4020 Love & Sexuality	2
PSY 5939 Spec Topics In Psy	2
PHY 2054 Physics W/O Calc II	2
ZOO 3731 Human Anatomy	2
SDS 6800 Adv Prac Counsel & C	2
SSE 4312 Teach Elem Soc Stud	2
POR 3202 Acc Portuguese I	2
PHT 6163 Neuro Dx & Mgt I	2
POR 3233 Acc Port II	2
PHC 3101 Intro to PH	2
PET 3640 Adapted Phys Activities	2
PAD 6434 Lead And Decision	2
TSL 4324 ESOL Content Areas	2
TRA 4721 Global Logistics	2
PHT 5174 Analysis Of Move	2
TSL 4081 Esol Issues II	2
REE 6715 RE Development	2
REL 3308 Studies In World Rel	2
RED 4311 Teach Interm Read	2
REE 4956 Intl Real Estate	2

PUR 6117 Strategic Storytelling	2
REL 3492 Earth Ethics	2
LEI 4711 Assessment, Doc and Eval in RT	2
NUR 3125 Patho Of Nur Prac	2
LAH 2020 Latin American Civ	2
LAS 3002 Intro Lat Am and Carib Std	2
LEI 4590 Sem In Park & Rec Mg	2
OTH 5760 Curr Rsrch Occup Thr	2
LIN 4680 Mod English Grammar	2
LAW 5072 Bus Law for Engineers	2
MUT 1001 Fundamentals Of Mus	2
ISM 3230 Business App Development	2
OTH 4418 Imp Neuro on Perf	2
MAN 4673 Trade Policy and Bus	2
MAR 4415 Adv Professional Selling	2
ISM 4211 Data Sys Phy Desn	2
MAR 6735 Digital Marketing Strat	2
INR 3502 Intl Organizations	2
MHS 6428 Cross Cult Couns	2
MAN 4970 IBH Project Seminar	2
MMC 6213 Ethics and Social Respons	2
MAN 6095 Mgmt HCO 21st Century	2
NGR 6172 APN Pharmacotherapeutics	2
INR 3243 Intl Rel Lat America	2
NUR 3666 Ev Bsd Nsg and Res Gbl Hlth	2
ISM 4452 Blockchain for Business	2
LEI 3800 Liability And Law	2
MAN 6245 Org Behavior	2
INR 3081 Contem Intl Probs	2
LBS 3001 Intro Labor Studies	2
ISS 6327 Global Sec Risk and Private	2
JOU 3117 News Reporting and Writing	2
KOR 1113 Korean I	2
LBS 5485 Conflict Resolution	2
ISS 6387 Writing Presentation	2
JPN 1131 Japanese II	2
MHS 6200 Meas & Appr In Couns	2
MAN 6606 Fund of IB	2
LAE 4405 Children's Lit	2
MAN 6608 Internat'L Business	2
MMC 5932 Special Topics	2
LEI 3402 Prg Dev In Rec & Spt	2
MUL 1010 Music Lit/Appreciation	2
JPN 3500 Jpn Culture/Society	2
NGR 5810 Res Meth In Nsg	2
INR 3214 Intl Rels Of Europe	2
NGR 7733 Organizational Dynamics	2
MAN 7206 ORGANIZATIONAL ANALYSIS	2
NUR 3535 Psychosocial Nurs	2
ISS 4364 Structure Analytic Method	2
LIT 5934 Special Topics	2
ISS 4385 Effective Govt Communication	2
INR 2001 Intro To Intl Rels	2
ISS 6216 Foundations Globalization	2
PAD 4723 App Res Meth	2
HIS 4935 Senior Seminar	2
EDG 6250 Curr Dev And Impr	2
HSA 4150 Gbl Hlthcr Sys Policy	2
EDE 6205 Cur Des Child Ed	2
HFT 3866 Wine 101	2
EDP 4275 Assess and Eval Child	2
HSA 3180 Ldrshp and Mgt Hlth Pro	2
EUH 4286 Topic-European His	2
ENC 3371 Rhetorical Theory/Practice	2
EEX 3764 Inst Astv Tech Sped	2
HFT 3741 Planning Meetings	2
EEX 4601 Beh Classrm Man I	2
EDF 2085 Tching Diverse Pop	2
EXP 3523 Memory&Mem Improvmt	2
EEL 4063 Intro to Bus. Decisions	2
FIN 4486 Fin Rsk Mgmt-Fineng	2
HSA 4113 Gbl Issues and Trnds Hlthcr	2
EEX 6912 Adv Thy Rsch Sp Ed	2
HSA 4190 Tech In Health	2

EEL 4410 Fields & Waves	2
HFT 3263 Restaurant Mgmt	2
EEL 4734 Embedded Operating Systems	2
HFT 3503 Hospitly Mktg Mgmt	2
FIN 6425 Fin Mangt Policies	2
HFT 3864 Brewing Science	2
HSA 4421 Legal Aspects of Hlthcr	2
HFT 4323 Hosp Facil Environ System	2
HSA 4431 Values/Ethics & Conf	2
ENC 3213 Prof and Tech Writing	2
HSA 5125 Intro to Hlth Policy Mgt	2
EEL 3120 Intro to Linear Systems	2
HSA 5655 Eth Dec Hlth Admin	2
HSA 3111 Intro to Hlth Serv Sys	2
HSA 6176 Fin Reimb Hlth Sys	2
HSA 4110 Hlthcr Org Beh and Res Mgt	2
HSA 6197 Hlth Info Systems	2
HSA 4140 Prg Plan Eval	2
EDH 6633 Intro High Ed Admin	2
HSA 4170 Hlthcr Fincl Mgt	2
EML 3036 Simultn Software ME	2
HSA 4192 Hlthcare Qual Mgmt	2
EDH 7980 Ph.D. Dissertation	2
EEL 4806 Ethical Hacking	2
HSA 4700 Qlty Evdn Bsd Hlthcr Srvc	2
FIN 6489 Adv Fin Risk Mgmt	2
HSA 5226 Mgt Of Ltc Systems	2
FIN 6517 Adv Investments	2
HSA 6156 Econ and Dec Anal HS	2
FOS 3021 Fundamentals Of Food	2
HSA 6185 Mgmt Org Theory HC	2
EDG 5414 Inst. Strat & Class Mgmt	2
HSA 6759 Qual Asses	2
EDG 5707 Cr Cult Stud Ed	2
EEL 3657 Control Systems I	2
GIS 3043 Introduction To Gis	2
IDS 3183 Hlth w/o Bdrs	2
CRW 3111 Narrative Technique	2
ADV 4201 Advertising and Society	2
COM 4310 Research Meth Comm	2
CCJ 4361 Death Penalty	2
ARA 1130 Arabic I	2
ASH 3223 Middle East 1800-pres	2
CNT 4713 Net-centric Computing	2
ACG 4341 Mgmt Accounting	2
BUL 6605 Healthcare Fraud	2
CHI 1130 Chinese I	2
COP 4655 Mobile Application Development	2
ANT 3451 Ant Race/Ethnicity	2
CCJ 3651 Drugs and Crime	2
DIE 4365 Diet Mgmt Nutr Progm	2
ANT 2000 Intro Anthropology	2
AFH 2000 African Civ	2
ADV 3200 Creative Concepts	2
BCN 2280 Const Surveying	2
COM 4430 Internat Business Comm	2
CJE 3444 Security & Crime Science	2
COM 4930 Spec Topics in Comm Arts	2
CJE 4694 Cyber Crime	2
CAP 4770 Intro Data Mining	2
CLP 2001 Personal Adjustment	2
CAP 5768 Intro to Data Science	2
BCN 5585 Sustainable Const	2
COP 5725 Principles of DBMS	2
BSC 2011 General Biology II	2
ARC 5249 Intro Des Theories	2
CLP 5166 Adv Abnormal Psy	2
CRW 3311 Poetic Techniques	2
CLP 6948 Clinical Internship	2
CNT 4513 Data Communications	2
EAB 3794 Principles of ABA	2
EDA 6061 Intro Educ Leadrshp	2
CHS 3501 Survey Forensic Sci	2
CHM 2211 Organic Chem II	2

STA 3193 Stat for Biology I	1
ZOO 4484 Primate Biology	1
TPA 3002 Period Styles Design	1
PAD 6701 Quant Applications	1
SPN 2340 Interm Sp Herit Spks	1
POR 3420 Rev Gram Writing I	1
SYP 3000 Indiv In Society	1
PET 4050 Motor Learn And Dev	1
TTE 6257 Traf Control Sys Ds	1
POS 3064 Federalism & Gov RI	1
SPC 3230 Rhetorical Communication	1
POS 3413 The Presidency	1
SSE 3346 SS Content Pedagogy	1
PET 4401 Admin of Fitness Oper	1
PCB 5423 Adv Ecol:Popul/Comm	1
POS 3443 Political Parties	1
TCN 5271 Adv. IoT Comm. & Netw	1
POS 3604 Consti Law:Limits	1
TPP 4114 Acting V	1
POS 3652 Law and Legal Profession	1
WST 4115 Gender Violence & Law	1
POS 4071 Corp Power & Am Pol	1
SPA 5805 Rsch Meth Com Disord	1
POS 4188 Miami Politics	1
SPC 3602 Adv Public Speaking	1
PET 4510 Evaluation In Kinesiology	1
SPT 3800 Found Transl Skills	1
PAD 6726 App Res Acct Pub	1
PCB 4663 Gen Human Genetics	1
PHC 6067 Probabilistic Graphical Models	1
SYA 3300 Research Methods	1
POT 3054 Mod Pol Theory	1
SYG 2010 Social Problems	1
POT 3064 Contempry Pol Theory	1
TAX 6026 V/A Tax Strategies	1
PAD 7055 Scope/The Pa & Pol	1
TPA 2010 Intro to Design	1
POT 4309 Sex Power Politics	1
TPP 2653 Playscript Analysis	1
POT 4311 Probs of Democracy	1
PHY 4221 Intro Classical Mechanics	1
PPE 4514 Psy/Dreams & Dreamin	1
WST 3015 Intro Global Gender	1
PSB 3002 Intro Bio Psy	1
ZOO 3303 Vertebrate Zoology	1
PSB 4250 Animal Cognition	1
SPA 5216 Vocal and Velo Disorders	1
PHC 6113 Comm. Health Promo.	1
PHI 3500 Metaphysics	1
PHC 6146 Hlth Prom Pro Plan Int Des	1
SPC 3301 Interpersonal Comm	1
PAD 7277 PA and American Econ	1
PCB 4234 BioCancer	1
PSY 5605 History & Systems	1
SPS 6190 Acad Assess & Inter	1
PSY 5908 Directed Ind Study	1
SPW 5729 Generation Of '98	1
PHC 6328 Mol Cell Tox	1
PAD 6417 Hum Res Pol & Man	1
PUR 3000 Principles Of P. R.	1
STA 2122 Stat for Behav Scien I	1
PUR 4100 Writing For PR	1
STA 5126 Fund. Design Of Exp.	1
PHC 6355 Environ. Health. Safe.	1
SYA 4011 Social Theory	1
PAF 7002 Found Pol Analy	1
SYD 6626 Cuba Seminar	1
PHC 6441 Epi of HD	1
SYG 3325 Deviance in Society	1
QMB 3200 Bus Stats & Analysis I	1
SYP 3530 Youth, Crime, and Society	1
PHC 6442 Glob. Environ. Pub. Healt	1
TCN 4212 Telenet Analys Des	1
QMB 7910 Quant Res Methods	1

PAD 6436 Profession & Ethics	1
PHC 6500 Fnd Public Hld Prac	1
TPA 2220 Stage Lighting	1
PHC 6601 Emerging Iss in PH	1
TPP 1110 Acting I	1
PHC 6703 Epi Methods Exp Design	1
TPP 3310 Directing I	1
RED 6247 Org & Suprv Read Prg	1
TPP 4601 Playwriting II	1
RED 6314 Literacy Theo/Instr	1
PHY 4604 Quantum Mechanics I	1
RED 6540 Reading Assessment	1
WOH 3244 World War II	1
RED 6931 Sem Reading Ed	1
WST 3114 Sex Trafficking Solutions	1
REE 4103 Appraisal/Real Est	1
WST 4930 WST Special Topics	1
PHC 6706 Rsch Methods in PH	1
ZOO 3753 Histology	1
PHC 7015 Adv Res Meth Exper Design	1
SOW 7492 Theor Dev Res Mthd	1
REL 3027 Meditation & Mystic	1
SPA 5402 Lng Lrn Pre Sch Chl	1
REL 3076 New Religious Movements	1
SPA 6322 Aural Rehab	1
REL 3106 Religion in Latin America	1
SPC 3210 Communication Thry	1
REL 3145 Women And Religion	1
PHI 3640 Environ Ethics	1
REL 3148 Religion & Violence	1
SPC 3425 Small Group Comm	1
REL 3185 Healers & Mediums	1
PHM 3400 Philosophy Of Law	1
REL 3209 Dead Sea Scrolls	1
PHM 4362 Global Justice	1
PHC 7017 Adv Epi Health Disparity	1
SPN 3733 Intro Span Linguistics	1
REL 3310 Intro Asian Rels	1
SPS 6199 Fam School & Coll	1
REL 3325 Religs Of Mythology	1
PCB 4253 Developmental Bio	1
REL 3375 Caribbean Religions	1
SPW 5934 Sp Topics Lang/Lit	1
REL 3490 Da Vinci Code	1
SSE 4118 Soc Stud & Found in EEC	1
ZOO 4733 Survey Regional Anat	1
SSE 4380 Global Perspectives	1
PAD 6227 Pub Fin & Bdgt Prcs	1
PCB 4676 Human Evolution	1
REL 4146 Fem Theology/Ethics	1
STA 3163 Stat Methods I	1
REL 4370 African Religions	1
STA 4202 Intro Design Exp	1
REL 4937 Special Topics	1
STA 6746 Multivariate Stat	1
RLG 5149 Rel Violence & Con	1
PCB 4717 Topics in Physiol/Biochem	1
RLG 5183 Rel, Nat, and Globalization	1
SYA 6356 GIS and Soc Research	1
RLG 5262 Nt Greek Exeg I	1
SYD 4237 Immigr And Refugees	1
RLG 5284 Dead Sea Scrolls	1
PCO 6206 Advanced Counseling	1
RLG 5384 Rasta, Voodoo, Sant	1
SYG 3002 Basic Ideas Of Soc	1
RTV 4101 Writing for Video Production	1
SYG 4060 Soc Of Sexuality	1
RUS 1130 Russian I	1
SYP 3456 Societies in World	1
SCE 4311 Adv Elem Science Methods	1
SYP 4454 Global & Society	1
SCM 6721 Import/Export & INTL Log.	1
TCN 2720 Intro to IoT	1
PHC 7723 PH Survey Research	1

TCN 5030 Comp Comm Net Techs	1
SDS 6820 Sup Fld Exp Coun Ed	1
TCN 6430 Net Mgmt & Cntrl St	1
SLS 1501 First Year Exper	1
THE 4314 Classical Drama Lit	1
PHC 7981 Research Concepts	1
TPA 2210 Stagecraft I	1
PHH 3402 British Empiricism	1
TPA 2248 Stage Makeup	1
SOP 3742 Psy Of Women	1
TPA 3930 Spec Topics in Theatre	1
PCB 3374 Tropical Ecology	1
PEO 4001 Prin Of Coaching	1
SOP 4745 Women and Leadership	1
TPP 3164 The Voice Mnt III	1
PHI 2100 Intro To Logic	1
TPP 3530 Stage Combat I	1
PCB 3703 Human Physiology I	1
TPP 4600 Playwriting I	1
SOW 3801 Self-Aware Modif Ser	1
PHY 3513 Thermodynamics	1
SOW 4332 SOW Prac with Com/Org	1
PHY 4323 Interm Electromag I	1
SOW 4654 Child Welfare	1
TTE 5215 Fund Of Traffic Eng	1
SOW 5241 Adv Child Welfare	1
PHY 5115 Math Physics I	1
SOW 5324 Theory & Prac-Groups	1
WOH 4223 Hist Global Econ	1
SOW 5344 Th And Prac-Com/Org	1
WST 3106 Intro to Global Diversity	1
SOW 5404 Sow Resrch Mthd I	1
WST 3644 Intro Transgender Studies	1
SOW 5710 Issues In Addiction	1
WST 4617 Gender & Genocide	1
SOW 5921 Self-Awareness	1
WST 5116 Gender Violence & Law	1
SOW 6236 Sw Policy II	1
PHY 5346 Adv E&M Theo I	1
SOW 6351 Sw Fam Practice	1
PHZ 3113 Meth Theoric Physics	1
PHI 3454 Phil of Biology	1
PEP 4111 Hea/Fitness Instr	1
SOW 7406 Hist Sys Soc Wk Res	1
REL 3603 Judaism after Holocaust	1
LAW 6600 Federal Income Tax	1
INR 3223 Japan And Us	1
LAA 6655 LSCP ARCH Grad Design 3	1
LBS 4154 Workers & Diversity	1
MHS 6800 Adv Prac Counsel & C	1
LBS 5155 Workplace Diversity	1
OCE 3014 Oceanography	1
LBS 5465 Mediation Techniques	1
LAH 4932 Topics In Lat Am His	1
INR 3061 Conflict Security	1
MET 5135 Climate Dynamics	1
INR 3253 Sub-Saharan Africa	1
MUE 2346 Vocal Techniques	1
INR 3274 Intl Rel Mid East	1
NGR 7892L Health Policy	1
LEI 3524 Human Res Mgt In Prm	1
LBS 3480 Intro Conflict Resolution	1
INR 4031 Media Intl Rel	1
MAR 4323 Integrated Mkg Comm	1
LEI 3703 Intro to Rec Therapy	1
ISM 3012 Intro to Info Systems	1
INR 4075 Int Prot Hum Right	1
MET 3003 General Meteorology	1
INR 4076 INR of Drug Trafficking	1
ISM 4113 Systems Analy & Des	1
ISM 6326 Info Security & Compliance	1
MMC 5306 Global Communications	1
LEI 4720 Trends, Issues, and Mgt in RT	1
MUN 1210 Orchestra	1

INR 4082 Islam In Int'L Rels	1
NGR 6491 Adv Anes Seminar	1
LEI 4931 Special Topics	1
LAW 7200 US Law I	1
LEI 5510 Prg Adm Parks & Rec	1
OTH 5011 Foundations OT Practice	1
LEI 5605 Physoc Bas Pr Plan	1
LBS 3482 Methods of Conflict Resolution	1
LEI 5716 Progam Planning in Rec Therapy	1
ISC 5150 Res in Earth and Env Sci	1
LEI 6725 Adm Aspects T.R.	1
INP 6090 Applied Psychology	1
LEI 6726 Trends, Issues, and Mgt in RT	1
LAH 5905 Rdgs In L.A. Hist	1
LIN 3013 General Linguistics	1
LAS 5933 Grad Seminar Las	1
ISM 6489 E-Busin & Blockchain Apps	1
MAS 3105 Linear Algebra	1
LIN 5206 Phonetics	1
MET 4301 Dynamic Meteorolo I	1
LIN 6805 Semantics	1
MHS 5340 Ed Vocation Couns	1
PAD 4046 Values Ethics Morali	1
LAW 6103 International Criminal Law	1
PAD 4414 Pers Skills For Adm	1
LAW 6264 Immigration Law	1
ISM 7906 Ind Study for Doc Stu	1
LAW 6372 Adv Appellate Advocacy	1
PAD 6053 Pol Soc Econ Pub Adm	1
MUH 3211 Music Hist I	1
ISS 3130 Fundamentals Ntl Security	1
MUN 5215 Orchestra	1
ISS 3653 F. Global Cyber Policy	1
LAW 6754 Professional Ethics & Leg Prof	1
MAA 3200 Intro To Adv Math	1
NGR 7854 Evidence-Based Practice	1
MAA 4211 Advanced Calculus	1
LAW 6936 Seminars	1
MAA 4402 Complex Variables	1
NUR 3821 Nursing Leadership	1
MAC 1105 College Algebra	1
LBS 3468 Intro to Mediation	1
MAC 1147 PreCal Alg and Trig	1
OTH 5224 Conditions Occup Perform	1
MAD 1100 Math It	1
OTH 6972 MS Project Dev	1
MAD 4203 Intro Combinatorics	1
MAP 6326 Partial Diff Eq	1
MAD 6409 Numerical Methods II	1
LAE 4335 Spec Teach Lab Eng	1
MAE 4310 Teach Elem Math	1
LAE 6305 Early Child Lang Art	1
INR 4232 Intrntnl Reltn China	1
LAE 6319 Integrat Lang Arts	1
MAN 3072 U.S. Culture in Business	1
MAR 4404 B2B Sales and Marketing	1
MAN 4064 Crisis Management	1
MAR 4503 Consumer Behavior	1
MAN 4102 Managing Diversity	1
MAR 4643 Dec Mkg and Negotns	1
MAN 4120 Mgng Virtual Teams	1
MAR 6446 Negotiations	1
MAN 4301 Human Res Mgmt	1
LAS 6934 Lac Research Sem	1
MAN 4320 Recruit & Staffing	1
MAR 6826 Customer REL MGMT	1
MAN 4322 Human Res Info Sys	1
LAW 5501 Constitutional Law	1
MAN 4410 Union-Mgmt Rel	1
MET 4102 Physical Climatology	1
INR 4273 IR of Iran and Persian Gulf	1
MET 4532 Hurricanes	1
ISS 5135 Nat'l Security Essentials	1
MHF 3404 History Of Math	1

ISS 5388 Communicating Analytic	1
MHS 6020 Found Mental Hlth	1
MAN 4613 Int'L Risk Assessmen	1
MHS 6411 Counseling And Cons	1
INR 4335 Strat Stds/Natl Sec	1
MHS 6630 Prog Eval Couns Educ	1
MAN 4660 Bus In Latin America	1
LAW 6233 Computer & Internet Law	1
INR 4350 Int Env Politics	1
MMC 4302 Social Media and Audience	1
ISS 6346 Theory and Inquiry	1
LAW 6330 Evidence	1
INR 4603 Theories Intn'L Rel	1
MTG 3212 College Geometry	1
MAN 4802 Small Business Management	1
MUE 3340 Elem Sch Tch Meth	1
ISS 6640 Global Financial Crimes	1
LAW 6570 Intel Property	1
MAN 6057 Manage Innovation	1
MUN 4213 Orchestra	1
ITA 1130 Italian I	1
MUS 5205 Grad Rev Diction I	1
JOU 3003 Intro To Journalism	1
NGR 5141 Patho Anp	1
INR 5609 Contemp Dynam INR	1
LAW 6806 LSV: LLM	1
JOU 3300 Adv News Writing	1
LAW 6845 Fashion and Design Law	1
INR 5615 Research Design Inr	1
NGR 7891 Adv Practice Finance	1
INR 6107 U.S. Foreign Policy	1
NUR 3119 Nsg Concepts and Issues	1
JPN 2200 Interm Japanese I	1
NUR 3145 Pharmacologic Basis	1
JPN 2201 Interm Japanese II	1
LAW 7303 Florida Civil Practice	1
INR 6604 Intl Rels Theory I	1
INR 3224 Inr Of East Asia	1
JRM 6300 Intro to American Law	1
OCP 3002 Physical Oceanography	1
JRM 6700 Torts and Criminal Wrongs	1
OTH 5002 Occup and Health	1
MAN 6636 Glob Geopol & Pol Econ	1
OTH 5202 Occup Dev Inf Adol	1
INR 6706 Pol Econ Of Int Rel	1
OTH 5524 Neuromotor Dis I	1
KOR 2220 Intermediate Korean I	1
OTH 6431 Musculoskeletal Dis II	1
MAN 6974 Master's Project	1
PAD 3431 Explore Leadership	1
LAA 5331 Site Analysis Des	1
MAP 4215 Stoch Differential Equations	1
PAD 4432 Admin Ldrshp & Bhvr	1
LIT 4023 World Short Stories	1
PAD 5435 Admin & Role Women	1
LIT 4192 Major Caribb Authors	1
PAD 6056 Practice Pub Mgmt	1
LIT 4224 Exile and Literature	1
LIT 4434 Environmental Lit	1
EDF 5255 Classrm Management	1
HFT 3865 Wines of New World	1
HFT 3065 Art/Sci Fine Spirits	1
ENL 4322 Shakespeare:Tragedie	1
HMG 6200 Mega Event Mgt	1
ENL 4324 Global Shakespeares	1
HUN 2201 Princpls Nutrition	1
ENL 4370 Woolf & Her Circle	1
HFT 3718 Travel Tourism Syst	1
ENL 5220 Major Brit Lit Fig	1
HFT 4509 Tour Dest Mkt	1
EEC 3613 Assessing Young Children	1
EMA 5015 Int To Nano Mat	1
ENV 4024 Bioremediation Eng	1
EEL 4241 Power Electronics	1

ENV 5027 Bioremediation	1
EEC 6705 Typ Atyp Ch Dev 0-5	1
ENV 5406 Water Treatment	1
HFT 3444 Hospitality eCommerce	1
EUH 2011 West Civ: Early Eur	1
HFT 3770 Cruise Oper & Mgt	1
EUH 2021 West Civ: Med/Mod	1
HFT 4240 Mng Service Org	1
EUH 2030 West Civ: Mod/Eur	1
HIM 6694 Consumer Hlth Informatics	1
EUH 4033 Nazism & Holocaust	1
EMA 3702 Mech & Mat Science	1
EUH 4142 Renaissance Reformation	1
EDH 6943 Practicum HEA	1
EUH 4185 Viking Society	1
ENC 3416 Writing and New Media	1
EDG 6286 Cur Eval & Improvmt	1
ENG 6937 Teaching Composition	1
EUH 4521 Victorian Britain	1
IDH 2003 Honors Seminar III	1
EUH 4542 Mod Brit 1688-Pres	1
EEX 5075 Teach Exc Incl Set	1
EUH 5905 Rdgs In Eur Hist	1
EEX 5608 Behav Classrm Manage	1
EVR 1017 Global Env & Soc	1
EEX 6765 Inst Tech Spec Ed	1
EEL 4740 Embedded System	1
EEE 4314 Integrated Circ Syst	1
IND 5235 Form Studio 1	1
HFT 3862L Great Wines of Europe	1
IND 5615 Bldg Sys	1
HFT 3871 Intro Food and Wine Pairing	1
EDA 6232 School Law	1
EEE 4717 IoT-Sec-Intro	1
EVR 4321 Sustainable Res Dev	1
HIM 6628 Health Data Visualization	1
EVR 4352 U.S. Env Policy	1
EDF 6850 Comp Int'l Pract & Apps	1
EVR 4401 Conservation Bio	1
HMG 6486 Investment Anal Hosp	1
EDF 6487 Act Rsch Ed	1
HMG 6607 Hosp Real Estate Develop	1
EEL 4746 Microcomputers I	1
EML 4806 Modeling Of Robots	1
IND 2420 INT Mat and Methods	1
ENC 2304 Writing Transfer Students	1
EXP 3304 Motivation & Emotion	1
ENC 3334 Intro Writing Studies	1
EEL 4802 Intro to Digi Forensics	1
ENC 3501 TEACH WRITING SECONDARY	1
FIL 3006 Intro Film Studies	1
ENG 4132 Studies In The Film	1
FIN 3005 Intro to Business Finance	1
HSC 4553 Fundamentals Of Path	1
EDF 6211 Edu Psy: Appl Found	1
HUN 6307 Cho And Lipids	1
FIN 4345 Credit Anal & Ln Eva	1
HAI 3213 Accelerated Haitian	1
EEL 4804 Intro Malware Reverse Eng	1
HFT 1020 Global Bev Intro	1
FIN 4502 Securities Analysis	1
EEX 5095 Autism: Nature/Need	1
EDH 7981 Doctoral Seminar	1
HFT 3073 Social Respon in Hosp Ind	1
EEL 4933 Eng Entrepreneurship	1
HFT 3314 Hsptly Prop Mgmt	1
EEL 5718 Comp-Comm Ntwk Eng	1
EEX 5766 Inst Astv Tech Sped	1
EEL 5741 Adv Microproc Sys	1
EDF 6475 Qual Found E Res	1
EEL 5813 Neural Networks	1
HFT 3735 Dest & Cultures	1
EEL 6681 Fuzzy System Design	1
HFT 3753 Conv & Trd Shw Mgmt	1

EEL 6787 Network Security	1
HFT 3791 Social Event Planning	1
EDF 6472 Int Dat Anly Ed Res	1
EGM 3311 Analysis Eng Syst	1
FOL 3930 Special Topics	1
EGM 3503 Applied Mechanics	1
EDH 6401 Counseling for Higher Ed	1
HFT 4224 Human Rel Hspty	1
EEX 3012 Ed Need Stud Except	1
EGM 5315 Int Anal Mech Syst	1
FRE 1131 French II	1
EDA 6503 Instruc Leadership	1
FRE 2200 Intermediate French	1
HFT 4875 All About Wine Business	1
FRE 3421 Rev Gram/Writing II	1
HIM 6682 Quality Outcome Analytics	1
FRE 3780 French Phonetics	1
HIS 3051 Jun Sem: Approaches Hist	1
FRE 4840 Hist Of Lang I	1
EMA 3066 Polymer Sci Engr	1
FRW 4123 Travel & Exile Lit	1
HMG 6466 Hosp/Tour Rev Mgt	1
FSS 4106 Purchasing/Menu Plan	1
HMG 6500 Event Mkt and Sponsor	1
GEA 3400 People Envir Lat Am	1
HMG 6596 Mkt & Sales Hosp & Tour	1
GEA 3500 People Envir of Eur	1
HMG 6879 Comp Wines Bev Mgrs	1
GEA 3635 People Envir Mdl East	1
EDP 6277 Human Life-Span Dev	1
GEB 2011 Intro To Business	1
EML 5808 Robot Control	1
GEB 4110 Writing the Business Plan	1
EEL 3514 Comm Systems	1
EDF 3430 Meas Eval Classroom	1
EDH 7505 Higher Ed: Finance	1
GEO 3421 Cultural Geography	1
EEL 4062 Bus Plan Develop	1
GEO 3471 Political Geography	1
EEC 3408 Com, Fam Young Child	1
GEO 3510 Earth Resources	1
ENC 3491 The Processes of Writing	1
GEO 3602 Urban Geography	1
ENC 4930 Special Topics Comp	1
GET 4560 Berlin Then and Now	1
ENG 4043 Contemp Lit Theory	1
EEC 6277 Think and Learn 21st Cent	1
ENG 5058 Form And Theory	1
GIS 3048 Applications Of Gis	1
HSC 3549 Clin Phys Hlth Prof	1
GLY 1010 Physical Geology	1
ENL 4215 Medieval Monstrosity	1
GLY 1101 The History Of Life	1
HUN 3191 World Nutrition	1
GLY 4400 Structural Geology	1
EDF 6486 Advance Anly Ed Res	1
GLY 4660 Paleoecology	1
ENL 4303 Major British Writer	1
GRE 3050 New Test Greek I	1
EVR 4411 Hum Org & Ecosy Mgt	1
IND 2237 INT Design 3	1
EVR 5219 Water Resour Assess	1
EDF 6689 Cont Iss Urb Ed	1
EVR 5409 Adv Conservation Biology	1
IND 6255 IND Grad 1	1
EVR 3723 Nat Res Valuation Econ	1
EVR 4211 Water Resources	1
ATR 6621 Research and EBP in AT II	1
CNT 3142 Microcontrollers for IoT	1
DIE 4506 Seminar Dietet/Nutr	1
BME 3632 BME Transport	1
AML 5305 Major Amer Lit Fig	1
BME 4100 Biomaterials	1
BCN 3611 Const Estimating I	1

BME 6705 Nonlin Sys Life Sci	1
ECO 4401 Intro Math Economic	1
BOT 3154 Local Flora	1
AML 4621 Maj African Am Wrtrs	1
BOT 4601 Gen Plant Ecology	1
COP 4226 Adv Windows Prog	1
ACG 5627 Systems Auditing	1
CPO 3055 Authoritarians and Democrats	1
ANT 3034 Anthro Theory	1
CTS 4408 Database Admin	1
BSC 4304 Past Environments	1
EAB 6780 Ethic Code Behavior	1
BSC 4422 Biotechnology	1
ECP 3302 Intro To Envir Econ	1
BSC 4434 Bioinf for Biology	1
CNT 4182 Mobile and IoT Security	1
BSC 5302 Past Ecosystems	1
COM 3714 Fnd. of Comm.	1
BSC 5406 Forensic Biology	1
COP 2270 Sec C Prog for Engineers	1
BSC 6950 Writing for Biology	1
ATR 6547 Financial Planning AT	1
ACG 6225 Advanced Accounting	1
COT 5428 Formal Foundations Cyber	1
AMH 3444 Great American West	1
CPO 3403 Pol. Of Middle East	1
BUL 6890 Spl Top In Law	1
CRW 5331 Adv Poetry Wkshop	1
CAP 4506 Intro Game Theory	1
BCN 4431 Structural Design II	1
CAP 4630 Artificial Intelligence	1
DIG 3001 Introduction to Digital Media	1
ACG 5395 Sem Managerial Acc	1
AFH 4254 History of Postcol Africa	1
CAP 5602 Intro To Ai	1
ECO 6112 Fund Micro Theory	1
CAP 5610 Machine Learning	1
ECT 3004 Found Voc Ed	1
AMH 4170 Civil War/Recon	1
CNT 4149 Sensor/IoT Deep Learning	1
CAP 6778 Adv Data Mining	1
ASH 3440 History of Japan	1
ANT 3462 Medical Anthropology	1
COM 3471 Social Media Impact Comm	1
ACG 6686 Fraud Examination	1
ASN 3154 Trad. and Mod. Korea	1
ANT 3497 Intro Qual Research Meth	1
ASN 4390 Modern Asia	1
ANT 4343 Cuban Cult & Society	1
AFA 5005 AAD Studies Theory	1
ANT 4461 Hallucinogens & Cult	1
COP 4604 Advanced Unix Prog	1
APK 4400 Sport Psychology	1
COP 4814 Compon Software Dev	1
ADE 5383 Inst Anal & Design	1
COT 4521 Intro to Comput Geometry	1
CCJ 4633 Guns and Violence	1
BCN 1272 Plans Interpret	1
CCJ 4644 White Collar Crime	1
CPO 3204 African Politics	1
CCJ 4663 Women Crime & CJ	1
CPO 6307 Sem So Am Politics	1
CCJ 4694 Human Trafficking	1
CRW 4110 Writing Fiction	1
CCJ 6362 Death Penalty	1
CTS 1120 Fund of Cybersec	1
CCJ 6485 CJ Policy Analysis	1
DAA 1200 Ballet I	1
CCJ 6676 Transnational Crime	1
DEP 5065 Cognitive Development	1
CCJ 6705 Research Methods	1
DIE 6568 Res I	1
CCJ 6706 Data Analysis	1
EAB 5655 Adv Meth Beh Chng	1

AMH 4930 Topics In Us History	1
EAS 5221 Design Analysis Aero Str	1
ARA 1131 Arabic II	1
ECO 3203 Intermed Macroecon	1
CEN 4021 Software Eng II	1
ECO 4903 Undergrad Seminar	1
CEN 4072 Fund SW Testing	1
ECO 7116 Micro Theory II	1
CEN 5079 Secure Application Prog	1
ECS 3003 Compare Econ Systems	1
CEN 5087 Software Data Model	1
ART 5853 Vis. Art Marketing	1
CES 3580 Hurricane Engineering	1
CNT 3162 Wireless Comm. for IoT	1
CES 6706 Adv Reinf Conc Dsn	1
CNT 4155 IoT Python Prog	1
CGN 2420 Computer Tools for Eng	1
AML 4233 American Realism	1
CGN 5320 Gis Civil & Env Eng	1
CNT 6207 Distributed Process	1
CGS 2518 Computr Data Analys	1
COM 3417 Com in Film	1
CGS 3095 Technology in the Global Arena	1
COM 3520 Design Comm Strategies	1
CGS 4285 Appl Networking	1
ASN 3143 Corporate Culture China	1
ARC 5075 Formative Studio	1
ASN 3403 Zen and Tea Ceremony	1
CHI 1131 Chinese II	1
COP 1000 Intro to Computer Programming	1
CHI 2200 Interim Chinese	1
COP 2250 Java Programming	1
CHI 3440 Business Chinese	1
COP 3337 Programming II	1
ADE 6186 Evaluation Ae/Hrd	1
COP 3835 Designing Web Pages	1
CHM 1033 Survey Of Chemistry	1
ASN 5130 Zen and the Arts	1
ADE 6260 Mgt Of Ae/Hrd Prg	1
ATR 5517 Admin Professionalism	1
CHM 1046 Gen Chemistry II	1
COP 4722 Survey Database Sys	1
ADE 6674 Trends And Issues	1
ATR 6555 Academic Leadership in AT	1
AMH 5905 Rdgs In Amer Hist	1
COT 3541 Logic For Comp Sci	1
ADV 4711 Portfolio Workshop	1
COT 5310 Thry Computation I	1
AML 3042 AM Lit 1492-Present	1
COT 5520 Computational Geometry	1
EDA 6192 Leadership In Ed	1
ANG 6083 Theory in Anthropology	1
CHM 3410 Phys Chem I	1
CPO 3104 Pol European Union	1
CHM 4307 Biol Chemistry II	1
CPO 3304 Pol Latin America	1
CHM 4611 Adv Inorganic Chemis	1
CPO 4725 Comparative Genocide	1
CHM 5251 Organometallic Chem	1
ADV 4411 Multicultural Mar Comm	1
CHM 5425 Grad Physical Chem	1
BCN 3761 Const Doc & Comm	1
CHM 5426 Grad Phys Chem II	1
CRW 4211 Creative Non-Fiction	1
CHM 5620 Graduate Inorganic Chem	1
CRW 5620 Adv Scrnwrtng Wkshp	1
CHM 6480 Quantum Mechanics	1
CTS 4348 Unix Sys Admin	1
ARH 2051 Art Hist. Survey II	1
CWR 5305 Surf Hydro	1
CHS 4100 Radio Chemistry	1
DEP 4014 Psych Of Parenting	1
CHS 5110 Topics in Radiochemistry	1
DEP 4464 Psychology Of Aging	1

CIS 4365 Enterprise Security	1
BCN 4570 Sustain App to Const	1
CIS 5027 Sys Fundamentals	1
DIE 6285 Pregnancy and Lactation	1
CIS 5374 Informat Security and Privacy	1
DIE 7566 Res Concept Develop	1
ARH 3811 Methodology	1
AMH 3141 Am.History:1790-1860	1
CJE 3110 Policing in Society	1
EAB 6770 Behavioral Techno	1
ARH 4131 Greek Art	1
EAS 4200 Intr Design Anal Aer Str	1
ARH 4310 Early Italian Ren	1
BCN 5728 Prin Const Sch	1
CJE 4717 Crime Science Capstone	1
ECO 3101 Intermed Microecon	1
CJE 6025 Comparative Policing	1
ECO 4400 Econ Strategy Info	1
CJJ 2001 Juvenile Justice	1
ECO 4701 World Economy	1
CJL 4133 Criminal Evidence	1
ECO 5709 The World Economy	1
CJL 4412 Criminal Law	1
ECO 6204 Fund Macro Theory	1
ARH 4724 History of Graphic Design	1
ECP 3254 Women, Men, Work	1
ARH 5805 Crit Study Vis Art	1
ECP 3555 Women&Economy	1
ARH 5897 Special Topics	1
ECS 3013 Intro To Econ Develo	1
ART 3008 Intro Arts Marketing	1
BME 2740 BME Simulation	1
CLP 6471 Assessment and Treatment I	1
AFH 4450 Hist South Africa	1
CHM 3120 Intro Analyt Chem	1
TOTAL	2108

Spring 2021	
Total Number of Course Sections Offered	n = 7,740
Course Title(s) that Required or Recommended Course Materials for Less than \$20 per Credit Hour	Number of Section(s)
ENC 1102 Writing and Rhetoric II	82
CHM 1046L Gen Chem Lab II	55
CHM 1045L Gen Chem Lab I	48
IDH 3035 Honors Seminar VI	24
PSY 3024 Psych Career Development	23
ENC 1101 Writing and Rhetoric I	23
SPC 2608 Public Speaking	20
PSY 3215 Psych Methods/Analysis II	20
SPN 1131 Spanish II	17
ISM 3011 Info System Mgt	17
AMH 2020 Amer Hist Since 1877	17
STA 2023 Stat Bus & Eco	14
MUL 1010 Music Lit/Appreciation	13
IDH 1002 Honors Seminar II	12
MAR 6446 Negotiations	11
MAR 4400 Personal Selling	11
EDF 2085 Tchng Diverse Pop	11
PHY 2049 Physics W/Calc II	10
MAR 6805 Mkg Mgt in Glob Env	10
ISM 6404 Bus Data Vis & Report	9
MAN 4600 International Mgmt	9
ENG 2012 Approaches To Lit	9
PHY 2054 Physics W/O Calc II	8
PHY 2048 Physics W/Calculus I	8
ZOO 4234L Gen Parasitology Lab	8
TSL 3080 Esol Prin/Prac I	8
LIT 1000 Intro to Literature	8
MAN 4633 MNC Strategy	8
BUL 4310 Legal Environ Bus	8
COP 2210 Programming I	8
THE 2000 Theatre Appreciation	7
SPN 1130 Spanish I	7

PUR 4101 Digital Editing and Design	7
MAN 4720 Strategic Management	7
MAC 1147 PreCal Alg and Trig	7
MAN 6245 Org Behavior	7
LAW 5793 Legal Skills & Values II	7
EVR 3013L Ecol S Fla Lab	7
HFT 3603 Hospitality Law	7
EEX 3070 Teach Exc Incl Set	7
COM 3461 Intercultural Comm	7
PHY 2053 Physics W/O Calc I	6
PHI 2600 Intro Ethics	6
PHI 2010 Intro to Philosophy	6
PEM 2101 Found Of Fitness	6
PSY 4931 Senior Seminar	6
QMB 4680 Bus Stats & Analysis II	6
MAR 4613 Marketing Research I	6
ISM 6106 Systems Analysis	6
EDF 5481 Foundations Ed Res	6
EDP 3273 Child Devp	6
HSC 3537 Medical Terminology	6
BSC 2011 General Biology II	6
ARC 1132 Design Graphics 2	6
BSC 2010 General Biology I	6
ECO 2013 Principles Macroeco	6
SPC 4445 Comm for Effec Leadership	5
POS 2041 American Government	5
PCB 4674 Evolution	5
RED 3313 Lang & Lit Dev	5
IDS 3309 How We Know What We Know	5
MAR 4144 Export Marketing	5
INR 3703 Inter Pol Econ	5
LAE 4405 Children's Lit	5
ENC 3249 Prof Tech Writing Comp	5
EGN 3613 Engineering Economy	5
EIN 6345 Inventory Control	5
FIN 4634 Intl Banking	5
CEN 4010 Software Eng I	5
CHM 2210 Organc Chem I	5
ANT 3241 Myth-Ritual-Mysticis	5
ASN 3410 Intro East Asia	5
CHS 3501 Survey Forensic Sci	5
CCJ 4497 Senior Capstone CJ	5
CHM 2211 Organic Chem II	5
SYD 3804 Sociology Of Gender	4
SYG 2000 Intro Sociology	4
REL 3308 Studies In World Rel	4
SOP 3015 Soc & Per Dev	4
RED 4150 Teach Begin Read	4
INR 3403 International Law	4
LAH 2020 Latin American Civ	4
MAN 4442 IB Negotiations	4
MAN 4602 Intl Business	4
ISM 3230 Business App Development	4
INP 3004 Intro. Ind/Org Psy	4
ISM 6136 Business Analytics Application	4
JPN 1130 Japanese I	4
ISM 6316 Proj Mgmt Info Sys	4
INR 3081 Contem Intl Probs	4
LEI 3001 Leisure & Recreation	4
HFT 4413 Hosp Analytics & Rev Mgt	4
GEB 4110 Writing the Business Plan	4
FIN 6326 Commercial Banking	4
EEC 3403 Sp Needs Ch & Fam	4
HFT 3453 Operations Control	4
EDF 3251 Classrm Management	4
EDP 3004 Educational Psychol	4
EIN 5359 Ind Fin Decisions	4
FIN 6644 Global Fin Strategy	4
EDF 4604 Cult & Soc Found Ed	4
ENC 1930 Essay Writing	4
CLP 4374 Psychotherapy	4
COP 4710 Database Management	4
COP 3530 Data Structures	4
ANT 3212 World Ethnographies	4

CJE 3001 Professional Development	4
BUL 6890 Spl Top In Law	4
COP 2250 Java Programming	4
CCJ 2020 Criminal Justice	4
COP 4338 Systems Programming	4
CCJ 4014 Criminological Theory	4
ARE 3313 Teach Elem Art	4
CRW 3010 Forms and Practices	4
SYA 3300 Research Methods	3
WST 3015 Intro Global Gender	3
SYP 3456 Societies in World	3
PHC 6410 Hlth Beh & Pub Hlth	3
PUR 6508 Social Media Metrics	3
POT 2002 Intro To Pol Theory	3
SYG 3325 Deviance in Society	3
PSY 5918 Supervised Research	3
TSL 4081 Esol Issues II	3
PUR 4100 Writing For PR	3
PUR 6005 Strat Comm Theory	3
SCE 4311 Adv Elem Science Methods	3
NGR 5141 Patho Anp	3
MAR 4503 Consumer Behavior	3
MAR 4233 Social Media	3
INR 4013 Dev Inr Thought	3
MAR 6838 Brand Management	3
ISM 4211 Data Sys Phy Desn	3
NUR 3125 Patho Of Nur Prac	3
ISM 6021 Mgmt Information Systems	3
MAR 4354 Marketing Yourself	3
HUM 1020 Intro to Humanities	3
HUM 3306 History Of Ideas	3
JPN 3500 Jpn Culture/Society	3
MHS 5400 Couns Skills & Tech	3
LEI 3542 Prk Rec & Spt Mgt	3
NGR 7769 Patient Safety and QI	3
MAN 3025 Organization & Mgmt	3
MAN 4771 Executive Skills Dev	3
LIN 4680 Mod English Grammar	3
FRE 1130 French I	3
EEC 4005 Early Child Ed Prog	3
EEC 3242 Art in Early Child	3
EEC 3408 Com, Fam Young Child	3
FIN 6246 Financial Mkts & Ins	3
HIS 4935 Senior Seminar	3
EEL 3120 Intro to Linear Systems	3
HMG 6296 Strat Mgmt Hosp/Tour	3
HSA 6186 Ldshp Org Beh HC	3
HFT 1000 Intro to Hosp and Tour	3
EDG 3321 Instructional Decisions	3
HFT 3866 Wine 101	3
ENC 3311 Adv Writing & Res	3
HFT 4464 Fin Anal Hosp Indust	3
ENT 4113 Entrepreneur: New Bus Develop	3
HLP 3722 Teach Elem Hlth/Pe	3
EDH 6404 Legal Issues HED Admin	3
HMG 6596 Mkt & Sales Hosp & Tour	3
FIN 3403 Financial Management	3
FIN 4604 Intl Fin Mgmt	3
FRE 1131 French II	3
ECO 2023 Principles Microeco	3
CCJ 3651 Drugs and Crime	3
COP 5614 Operating Systems	3
CEN 3721 Intro Human-Comp Interaction	3
CCJ 3666 Victimology	3
CNT 4713 Net-centric Computing	3
CPO 3010 Comparative Polit	3
COM 3404 Nonverbal Communication	3
CPO 2002 Intro Comp Pol	3
ASL 1010 ASL I	3
COP 3337 Programming II	3
DEP 4164 Children's Learning	3
SPN 2340 Intern Sp Herit Spks	2
SOW 6351 Sw Fam Practice	2
TPP 2100 Intro To Acting	2

POT 3013 Anct & Medv Pol Thry	2
SPC 3425 Small Group Comm	2
POT 3302 Political Ideologies	2
PHC 6118 Pop Health Man I	2
OTH 6772 Evid based Prac	2
TSL 4324 ESOL Content Areas	2
PHC 6441 Epi of HD	2
SPC 3230 Rhetorical Communication	2
PSY 5939 Spec Topics In Psy	2
PAD 4223 Pub Sec Budgtng	2
PHC 6750 Develop & Eval H.P.	2
PHY 4324 Interm Electromag II	2
OCC 5050 Chemical Oceanography	2
POR 3202 Acc Portuguese I	2
PHT 6353 Diagnostics in PT	2
TPP 3113 Acting IV	2
QMB 6357 Business Statistical Anal	2
PHC 6355 Environ. Health. Safe.	2
PET 3325 Kinetic Anatomy	2
SOW 6425 Assess and Interven	2
ZOO 3731 Human Anatomy	2
SPC 3271 Rhetoric and Public Address	2
REE 4956 Intl Real Estate	2
PHC 3101 Intro to PH	2
PET 3640 Adapted Phys Activities	2
PAD 4723 App Res Meth	2
RTV 4101 Writing for Video Production	2
SSE 4312 Teach Elem Soc Stud	2
RTV 4320 Elec News Gathering	2
PHC 6102 Intro to PH Policy	2
PHC 6315 Intro to Env Hlth Sci	2
SYG 3002 Basic Ideas Of Soc	2
SCM 6206 Logistics STM & Analyt.	2
POR 3233 Acc Port II	2
PET 4050 Motor Learn And Dev	2
TPP 2111 Acting II	2
SOP 3742 Psy Of Women	2
PAD 6056 Practice Pub Mgmt	2
SOP 3932 Psy Of Drugs & Abuse	2
POS 4784 PS Analytic Writing	2
SOW 3313 SOW Prac with Fam/Ind	2
SOW 4332 SOW Prac with Com/Org	2
PAD 6053 Pol Soc Econ Pub Adm	2
MAN 6095 Mgmt HCO 21st Century	2
MCB 3020 General Microbiology	2
MAR 4156 Internatl Marketing	2
INR 4075 Int Prot Hum Right	2
MAN 4410 Union-Mgmt Rel	2
IND 5438 Grad Lighting	2
MAN 6635 Global Strategy	2
ISM 6338 Info System Strategy & Governa	2
MAR 6336 Integrated Mkg Comm	2
IND 6256 IND Grad 2	2
MAN 4322 Human Res Info Sys	2
ISS 4385 Effective Govt Communication	2
MAN 4673 Trade Policy and Bus	2
ITA 1130 Italian I	2
MAN 6385 Hr Strategy & Plan	2
JOU 3300 Adv News Writing	2
MAR 3023 Introduction to Marketing	2
JPN 1131 Japanese II	2
MAR 4415 Adv Professional Selling	2
LAA 5235 Theory Of Land. Arch	2
MAR 6646 Marketing Research	2
INP 6216 Personnel Selection	2
NGR 6172 APN Pharmacotherapeutics	2
LAW 5072 Bus Law for Engineers	2
MAN 4350 Training & Devop	2
LBS 3001 Intro Labor Studies	2
MAN 4613 Int'L Risk Assessmen	2
LBS 3480 Intro Conflict Resolution	2
INR 4931 Topics In Intr Rel	2
LBS 5465 Mediation Techniques	2
MAN 6098 Man Healthcare Finance	2

LEI 3402 Prg Dev In Rec & Spt	2
MAN 6606 Fund of IB	2
INR 4603 Theories Intrn'l Rel	2
MAN 6678 Global Start-up	2
LEI 4711 Assessment, Doc and Eval in RT	2
INR 3243 Intl Rel Lat America	2
LEI 4724 Facilitation Techniques in RT	2
MAR 4404 B2B Sales and Marketing	2
NUR 4905 Independent Study	2
INR 3274 Intl Rel Mid East	2
INR 2001 Intro To Intl Rels	2
INR 3303 Foreign Policy	2
NUR 3535 Psychosocial Nurs	2
MAS 3105 Linear Algebra	2
NUR 3821 Nursing Leadership	2
MMC 4200 Law And Ethics	2
LIT 4930 Special Topics	2
NGR 7892L Health Policy	2
INR 3030 Diplomacy	2
ISM 3153 Bus Process Analysis	2
HMG 6586 Research & Stat Mthd	2
HSA 6175 Fin Mgt Hlth Sys	2
HSA 4170 Hlthcr Fincl Mgt	2
EEE 5543 Random Signal Princ	2
EUH 2021 West Civ: Med/Mod	2
FIN 4486 Fin Rsk Mgmt-Fineng	2
HSA 4110 Hlthcr Org Beh and Res Mgt	2
EEX 7933 Adv Topics In Sped	2
HSA 4431 Values/Ethics & Conf	2
EDF 3521 Education In History	2
HSA 6187 Mgt HR Hlth Prof	2
EEC 3315 Play and Soc Competence	2
HMG 6429 Asset Management	2
EEL 4063 Intro to Bus. Decisions	2
HSA 3111 Intro to Hlth Serv Sys	2
EML 2032 Programming for ME	2
HSA 4140 Prg Plan Eval	2
FOL 3930 Special Topics	2
HSA 4192 Hlthcare Qual Mgmt	2
EML 3036 Simultn Software ME	2
HSA 5125 Intro to Hlth Policy Mgt	2
HSA 6717 Adv Hlth Mgt Res Sem	2
HSA 6185 Mgmt Org Theory HC	2
HSA 6759 Qual Asses	2
HSA 6205 Hosp & Hlth Fac Org	2
EDF 1005 Intro To Education	2
EVR 3013 Ecology Of S. Fla	2
GEB 6507 Finance for HR Prof	2
HMG 6446 Hosp & Tech Tech Innov	2
GIS 3043 Introduction To Gis	2
EEX 3066 Instr Prac Ese I	2
EDF 6211 Edu Psy: Appl Found	2
HSA 3180 Ldrshp and Mgt Hlth Pro	2
HFT 2220 Human Resources for Hosp	2
HSA 4113 Gbl Issues and Trnds Hlthcr	2
HFT 2441 Hospitality Info Tech	2
HSA 4150 Gbl Hlthcr Sys Policy	2
HFT 3263 Restaurant Mgmt	2
HSA 4190 Tech In Health	2
EEL 4410 Fields & Waves	2
HSA 4421 Legal Aspects of Hlthcr	2
EDE 5267 Ed. Child Urban Soc	2
HSA 4700 Qlty Evdn Bsd Hlthcr Srvc	2
EEL 4806 Ethical Hacking	2
HSA 6149 Str Pln & Mkt Hs	2
HFT 4323 Hosp Facil Environ System	2
HSA 6176 Fin Reimb Hlth Sys	2
EEL 5807 Adv Ethical Hacking	2
EXP 4604 Cognitive Processes	2
EDG 5414 Inst. Strat & Class Mgmt	2
HSA 6197 Hlth Info Systems	2
HIS 3051 Jun Sem: Approaches Hist	2
FES 6826 Disaster Prepare Plan Meth	2
EEL 6297 ISGA	2

EDP 4275 Assess and Eval Child	2
FRE 4501 Contemp Fre Society	2
EVR 1017 Global Env & Soc	2
CCJ 4662 Race and Crime	2
COM 4310 Research Meth Comm	2
CAP 5507 Game Theory	2
CGS 3095 Technology in the Global Arena	2
CAP 4770 Intro Data Mining	2
CHI 1130 Chinese I	2
COP 5725 Principles of DBMS	2
CAP 5738 Data Vis	2
ANT 3451 Ant Race/Ethnicity	2
EAB 4764 Beh Analy Child Prob	2
ARA 1131 Arabic II	2
CAP 5771 Princip Data Mining	2
COP 3804 Intermediate Java	2
BCN 3761 Const Doc & Comm	2
COP 4814 Compon Software Dev	2
CPO 3055 Authoritarians and Democrats	2
COT 5428 Formal Foundations Cyber	2
CPO 3304 Pol Latin America	2
BME 4100 Biomaterials	2
CAP 6619 Adv. Topics in ML	2
COM 3714 Fnd. of Comm.	2
CRW 5934 Special Topics Crw	2
COM 4430 Internat Business Comm	2
BME 3632 BME Transport	2
ADV 4201 Advertising and Society	2
CCE 5035 Const Eng Mgmt	2
CCJ 4361 Death Penalty	2
CJE 3444 Security & Crime Science	2
ARH 4970 Art History Thesis	2
CJL 4064 Justice&Constitution	2
COP 4751 Advanced DB Management	2
CLP 2001 Personal Adjustment	2
CCJ 6993 Global Justice & Policing	2
CLP 4134 Child Psychopatholog	2
COT 5407 Intro to Algorithms	2
CCJ 2010 Criminology	2
CAP 5109 Advanced HCI	2
CLP 6943 Adv Clinical Prac	2
CEN 5087 Software Data Model	2
AMH 2042 Mod Amer Civ	2
CPO 3403 Pol. Of Middle East	2
EAB 3794 Principles of ABA	2
CRW 3111 Narrative Technique	2
CHM 4307 Biol Chemistry II	2
CWR 4204 Hydraulic Engrg	2
BCN 5728 Prin Const Sch	2
CHS 4600 Marine Chemistry	2
AFH 2000 African Civ	2
CHM 3411 Phys Chem II	2
CHM 1046 Gen Chemistry II	2
ACG 6176 Business Valuation	2
ECO 4903 Undergrad Seminar	2
CGN 2420 Computer Tools for Eng	2
PHP 4510 Marxism	1
PHI 4130 Symbolic Logic	1
VIC 5205 Trends Graph/Design	1
PCB 4023 Cell Biology	1
PHM 4050 Philo Of Death	1
PHC 4189 Ensuring Success/Failure	1
TPA 2010 Intro to Design	1
POS 3258 Pol on Film	1
SOW 4658 Child Abuse Interv	1
POS 3283 Judicial Process	1
PHI 4321 Topics Phil.Mind	1
POS 3413 The Presidency	1
PHM 4362 Global Justice	1
POS 3443 Political Parties	1
OTH 4418 Imp Neuro on Perf	1
POS 3604 Consti Law:Limits	1
PET 5256 Sociology Of Sport	1
POS 3652 Law and Legal Profession	1

PHZ 3113 Meth Theoric Physics	1
POS 4035 Environ Politics	1
SOW 5404 Sow Resrch Mthd I	1
POS 4070 Race and Politics in US	1
SPA 6322 Aural Rehab	1
POS 4122 State Gvt & Politics	1
SPC 3602 Adv Public Speaking	1
POS 4182 Florida Politics	1
SPS 7407 Beh Interv Schools	1
POS 4233 Public Opinion	1
STA 2122 Stat for Behav Scien I	1
PHC 4375 Community Participation	1
SYD 6639 Soc and Culture of Carib	1
PHC 6000 Epi I: Intro PH Epi	1
OTH 5414 Anal Adap Hum Mot	1
PHC 6080 SAS Comp Health Science	1
TPA 3073 Stage Rendering	1
POT 3054 Mod Pol Theory	1
TPP 4532 Stage Combat II	1
POT 3064 Contemptry Pol Theory	1
WST 3114 Sex Trafficking Solutions	1
POT 3204 Amer Polit Thought	1
ZOO 4513 Animal Behavior	1
PCB 4414 Behavioral Ecology	1
SOW 5240 Adv Child Abuse Interv	1
POT 4104 Sci-Fi and Politics	1
SOW 5629 Sow Prac-Diversity	1
POT 5007 Sem In Pol Theory	1
SOW 7237 Micro Theor Res	1
PPE 3003 Thry Of Personality	1
SPA 6410 Aphasia	1
PPE 3502 Psy Of Consciousness	1
SPC 3301 Interpersonal Comm	1
PRT 4430 LGBTQ Cult. Braz.	1
PHM 3200 Social/Political Phi	1
PSB 4250 Animal Cognition	1
SPN 4930 Special Topics Ling	1
PAD 6306 Pol Anal Prog Plan	1
SPT 4809 Prac Medical Transl	1
PSY 3211 Psych Methods/Analysis I	1
SSE 4383 Persp in Soc Sc Ed	1
OTH 6973 MS Project Imple	1
STA 4322 Intr To Math Stat II	1
PAD 3431 Explore Leadership	1
SYA 4011 Social Theory	1
OCB 6716 Fish Population Dynamics	1
PET 4401 Admin of Fitness Oper	1
PEO 4001 Prin Of Coaching	1
SYO 4300 Political Soc	1
PUP 6006 Pub Plcy Anyl Evtl	1
PAD 5427 Coll Barg Pub Sector	1
PUR 3000 Principles Of P. R.	1
TPA 2220 Stage Lighting	1
PEP 4111 Hea/Fitness Instr	1
PHY 3107 Adv Modern Physics	1
PAD 3802 Intro Urb Reg Study	1
TPP 4117 Acting VI	1
PHC 6412 HP in Diverse Communities	1
PHY 4605 Quantum Mech II	1
PUR 6115 Media Skills	1
WOH 5935 World Hist Topics	1
PAD 6434 Lead And Decision	1
WST 5618 Gender and Genocide	1
PUR 6607 Global Strategic Communic	1
PAD 5805 Econ Dev Urb Revit	1
PUR 6935 Advanced Comm Seminar	1
OCE 3014 Oceanography	1
QMB 3200 Bus Stats & Analysis I	1
SOW 5116 Trauma Theory and Interv	1
OCB 3264 Coral Reef Biology	1
SOW 5344 Th And Prac-Com/Org	1
PHC 6443 Eth Issu Pub Heal	1
SOW 5605 Medical Social Work	1
PHC 6500 Fnd Public Hld Prac	1

PHI 3640 Environ Ethics	1
PHC 6537 MCH Case Studies	1
SOW 6646 So/Wk Prac With Eld	1
RED 6314 Literacy Theo/Instr	1
SPA 5107 Neuro Bases Com	1
RED 6747 Research In Reading	1
SPA 6406 Dual Lang Acqui Dis	1
RED 7938 Doc Sem Read Ed	1
PAD 4046 Values Ethics Morali	1
PHC 6589 Hp In Institutions	1
PHI 4541 Philosophy Of Time	1
REE 6435 Real Estate Law	1
PHI 4633 Biomedical Ethics	1
ZOO 4733 Survey Regional Anat	1
PHI 4884 Philosophy of Film	1
REL 3106 Religion in Latin America	1
PHM 4020 Love & Sexuality	1
REL 3132 Witchcraft	1
SPN 2341 Interim Spn II Herit Spks	1
REL 3145 Women And Religion	1
SPN 6930 Special Topics Lin	1
REL 3194 The Holocaust	1
SPT 3800 Found Transl Skills	1
PAD 6701 Quant Applications	1
SPT 4814 Conference Interp	1
REL 3310 Intro Asian Rels	1
SSE 4380 Global Perspectives	1
REL 3325 Religs Of Mythology	1
PAD 5043 Govt & Mnrtty Grp Rel	1
REL 3490 Da Vinci Code	1
STA 3164 Stat Methods II	1
REL 3492 Earth Ethics	1
STA 6636 Large Data Analysis	1
REL 4030 Methods Study Relig	1
SYA 4010 Class Trad Soc Thry	1
REL 4146 Fem Theology/Ethics	1
PHT 5205 Clinical Skills	1
REL 4173 Tech & Human Values	1
SYD 6901 Special Topics	1
REL 4434 Religion and Queer Theory	1
SYG 2010 Social Problems	1
REL 4461 Top In Phil Of Rel	1
OTH 5203 Occup Dev Adlt	1
REL 4937 Special Topics	1
SYP 3000 Indiv In Society	1
RLG 5038 Advanced Fieldwork	1
TCN 2720 Intro to IoT	1
RLG 5193 Brazil: Rel and Liberation	1
THE 4370 Mod Dramatic Lit	1
PHC 6762 International Ph	1
TPA 2210 Stagecraft I	1
PHC 6931 Sp Top Biostatistics	1
TPA 3060 Scenic Design I	1
RUS 1131 Russian II	1
OTH 5438 Neuromotor Dis II	1
SCE 4194 Pers in Sci and Math Ed	1
TPP 2653 Playscript Analysis	1
PHC 7300 Biol. Bas. Environ. Dis.	1
TPP 3265 Intro Acting/Directing TV/Film	1
PHC 7584 Adv Research Designs	1
TPP 4265 Acting VIII	1
SCM 6721 Import/Export & INTL Log.	1
PAD 5435 Admin & Role Women	1
SDS 6411 Couns Child Adoles	1
PHY 5347 Adv E&M Theo II	1
SDS 6820 Sup Fld Exp Coun Ed	1
WOH 2001 World Civilization	1
PHH 3410 Phil of the Enlightenment	1
PHY 6646 Adv Quant Mech II	1
PHH 4930 A Major Philosopher	1
WST 4617 Gender & Genocide	1
PAD 7707 Applied Quant Analysis II	1
WST 5936 Women in Leadership	1
SOP 4745 Women and Leadership	1

ZOO 3753 Histology	1
SOP 5058 Prosem Soc Psy	1
ZOO 4484 Primate Biology	1
PHI 2100 Intro To Logic	1
PET 6597 Research in Kinesiology	1
SOW 3403 Social Wk Research	1
REL 3027 Meditation & Mystic	1
MMC 3303 Global Media and Society	1
JRM 6091 Intro to Reg Compliance	1
INR 3223 Japan And Us	1
LAW 5259 Intro International & Comp Law	1
MAS 4301 Alg Structures	1
LAW 5300 Civil Procedure	1
MUL 5456 Wind Instrumt Lit	1
INP 6940 Str Meth Apld Psy Rs	1
MAN 6608 Internat'L Business	1
LAW 6234 Race and the Law	1
INR 5086 Islam In Int'L Rels	1
LAW 6264 Immigration Law	1
MHF 4102 Axiomatic Set Thry	1
LAW 6310 ADR	1
MUE 3395 Music in Spec Ed	1
LAW 6313 Negotiation	1
LAS 6003 Survey Latin America	1
LAW 6471 Environmental Law	1
JPN 2200 Interm Japanese I	1
LAW 6545 Employment Law	1
JRM 6010 Contracts & Business Law	1
LAW 6550 Antitrust	1
INR 5036 Polit/Globalization	1
LAW 6583 Education Law	1
LAE 5415 Childrens Literature	1
LAW 6750 Professional Responsibility	1
MET 3103 Planetary Climate Change	1
LAW 6798 ALR	1
MHS 6411 Counseling And Cons	1
LAW 6936 Seminars	1
MMC 5440 Research Seminar	1
LAW 6993 Afr. Am. & Minority Jur.	1
INR 3502 Intl Organizations	1
LAW 7510 Civil Rights	1
LAS 5933 Grad Seminar Las	1
LAW 7804 US Law II	1
IND 5628 Sustain Pract I Arch	1
ISS 3653 F. Global Cyber Policy	1
MAN 4802 Small Business Management	1
LBS 3468 Intro to Mediation	1
JPN 2201 Interm Japanese II	1
INR 4210 INR Scandinavia & Arctic	1
INR 4436 Inter Negotiation	1
LBS 4154 Workers & Diversity	1
MAP 5255 Math Scientific Computation	1
LBS 4484 Apply Conflict Res Techniques	1
INR 5017 Approaches Area Studies	1
LBS 4654 Compar & Intl Labor	1
KOR 1132 Korean II	1
LBS 5155 Workplace Diversity	1
LAE 3360 Manging Sec L A Clsrm	1
ISS 4930 Topics in Globalization	1
INR 5616 Qualitative Methods IR	1
LBS 5485 Conflict Resolution	1
MAT 3501 Numb, Funct and Modeling	1
LBS 5486 Conflict Dynamics	1
MET 4400 Met Instrumentation	1
HSC 4553 Fundamentals Of Path	1
INR 6608 Contemporary IR Theory	1
LEI 3400 Conditions in RT	1
MHS 6630 Prog Eval Couns Educ	1
ISS 5135 Nat'l Security Essentials	1
MMC 4631 Audience, Pub Opion, New Media	1
LEI 3524 Human Res Mgt In Prm	1
MTG 4302 Topology	1
ISS 6132 Intelligence Community	1
MUE 6815 Ac & Psy Foun Of Mus	1

LEI 3800 Liability And Law	1
MUL 4430 Guitar Lit	1
LEI 4590 Sem In Park & Rec Mg	1
HUN 6307 Cho And Lipids	1
LEI 4705 Program Planning in Rec Therap	1
ISM 3012 Intro to Info Systems	1
ISS 6216 Foundations Globalization	1
MAN 4663 Bus in Caribbean	1
ISS 6306 Proposal Writing	1
MAN 4701 Business In Society	1
LEI 5605 Physoc Bas Pr Plan	1
INR 4232 Intrntnl Reltn China	1
LEI 5716 Progam Planning in Rec Therapy	1
IND 5937 Special Topics	1
LEI 6725 Adm Aspects T.R.	1
INR 3224 Inr Of East Asia	1
LIN 3013 General Linguistics	1
JPN 3400 Adv Japanese I	1
LIN 4214 Applied Phonetics	1
MAN 6626 Int'L Hrm	1
NUR 4667 Nsg in Gbl Hlth Care Sys	1
MAN 6636 Glob Geopol & Pol Econ	1
ISS 6307 Research Tools Global Stud	1
MAP 5117 Math & Stat Modeling	1
LIN 6510 Syntax I	1
JRM 6070 Regulation Health Ins	1
ISS 6384 Reputation Management	1
KOR 1113 Korean I	1
LIT 3313 Science Fiction	1
MAR 4323 Integrated Mkg Comm	1
LIT 3671 Global Issues Literature	1
INR 3262 Inr Russia/Fmr Ussr	1
LIT 4023 World Short Stories	1
ISM 4314 Project Management	1
NUR 3119 Nsg Concepts and Issues	1
LAA 5541 South Florida Lscp	1
ISS 6387 Writing Presentation	1
INP 6090 Applied Psychology	1
ISS 6650 US-RUS Relations & Sec	1
INR 5507 Int'L Organizat I	1
ISS 6993 Conflict and Development	1
ISM 4421 AI for Business	1
LIT 5934 Special Topics	1
MAS 5315 Algebraic Geometry	1
MAA 3200 Intro To Adv Math	1
LAS 3002 Intro Lat Am and Carib Stdy	1
MAA 4211 Advanced Calculus	1
MET 3502 Synoptic Meteorology	1
ISM 4113 Systems Analy & Des	1
MET 4420 Physical Meteorology	1
MAD 1100 Math It	1
MHF 5107 Graduate Set Theory	1
MAD 3305 Graph Theory	1
MHS 6020 Found Mental Hlth	1
MAE 4394 Perspective Math/Sci Ed	1
MHS 6470 Hum Sex Couseling	1
INR 4707 Political Economy China	1
MMC 3123 Writing Fundamentals	1
MAN 3072 U.S. Culture in Business	1
LAS 4294 Contemp Lat Am and Carib	1
MAN 4064 Crisis Management	1
MMC 5306 Global Communications	1
MAN 4102 Managing Diversity	1
MMC 6402 Theories Mass Com	1
MAN 4120 Mgng Virtual Teams	1
MUE 3332 Sec Instr Methods	1
MAN 4320 Recruit & Staffing	1
MUE 6190 Curric and Policy Design	1
ITA 1131 Italian II	1
MUH 1560 African-Amer Music	1
ITA 2200 Interm Italian	1
MUL 3551 Wind Literature	1
JOU 3003 Intro To Journalism	1
MUL 5435 Guitar Lit	1

INR 3061 Conflict Security	1
MUM 4302 Business Of Mus II	1
IDH 2004 Honors Seminar IV	1
NGR 5810 Res Meth In Nsg	1
INR 3102 Amer Foreign Policy	1
NGR 7733 Organizational Dynamics	1
JOU 3117 News Reporting and Writing	1
NGR 7891 Adv Practice Finance	1
INR 3214 Intl Rels Of Europe	1
ISS 3130 Fundamentals Ntl Security	1
MAN 4662 Business in Europe	1
LIT 4192 Major Caribb Authors	1
NUR 3666 Ev Bsd Nsg and Res Gbl Hlth	1
LIT 4253 Literature of Exile	1
IND 5325 Color Theory and App	1
LIT 4351 Major Afri Writers	1
IDS 3183 Hlth w/o Bdrs	1
LIN 6323 Phonology	1
EEX 5767 AT AAC/Autism	1
EEL 5718 Comp-Comm Ntwk Eng	1
GEO 6118 Theory in Geography	1
ENG 4132 Studies In The Film	1
HFT 4240 Mng Service Org	1
ENG 5009 Lit Crit & Schol	1
EML 5808 Robot Control	1
ENG 5048 Literary Theory	1
GLY 4450 Envr-Explor Geophys	1
ENG 5971 Thesis/Diss Wksp	1
HFT 3811 Bev Mkt & Distribution	1
ENL 3261 19C Women Novelists	1
EEX 3221 Assmnt Stud W/Except	1
ENL 4273 Modern Brit Lit	1
EIN 5993 Industrial Marketing	1
ENL 4303 Major British Writer	1
ENC 3491 The Processes of Writing	1
ENL 4930 Spec Topics Eng Lit	1
EEL 4831 Embedded GUI Programming	1
ENL 5220 Major Brit Lit Fig	1
HAI 3213 Accelerated Haitian	1
EEC 4250 Cur Instr Early Chld	1
HFT 3314 Hsptly Prop Mgmt	1
ENT 4704 Intl Entrepreneurship	1
EEL 6812 Adv In Neural Nets	1
ENV 4551 Wastewater Trtmt Eng	1
EEX 3113 Speech, Lang and Literacy	1
ENV 5517 Des Wstwater Trea	1
HMG 5547 Train Team Bldg	1
ENV 5666 Water Quality Managm	1
HMG 6863 World Wine & Food	1
ENV 4060 Entomology	1
EDP 7058 Behav Resch & Eval	1
ENV 4060L Entomology Lab	1
EEC 3613 Assessing Young Children	1
ESI 3215 Eval Engr Data I	1
EEC 4211 Int Math and SCE EEC	1
EUH 2011 West Civ: Early Eur	1
GER 2993 Business German	1
EEC 6678 Research Child Ed	1
GLY 1101 The History Of Life	1
EUH 2030 West Civ: Mod/Eur	1
GLY 5754 Ap Remote Sensing	1
EUH 3143 Age of the Reformation	1
EEL 5669 Auto Sys and Controls	1
EUH 4312 History Of Spain	1
HFT 3074 Personal Empower in Hosp Ind	1
EUH 4408 Alexander The Great	1
EEL 6787 Network Security	1
EUH 4434 Italy During Renaissance	1
HFT 3862L Great Wines of Europe	1
EUH 4521 Victorian Britain	1
HFT 3873 The History of Wine	1
EDA 6503 Instruc Leadership	1
EDH 7065 Philosophy Higher Ed	1
EEE 4304 Electronics II	1

HFT 4757 Advanced Events Mgt	1
EEE 4510 Intro To Dsp	1
EEX 3280 Found & Trans for IWD	1
EVR 3723 Nat Res Valuation Econ	1
EEX 5075 Teach Exc Incl Set	1
EVR 4323 Restoration Ecol	1
EEX 6228 Int Cur Assmt Instr	1
EVR 4352 U.S. Env Policy	1
EDF 6689 Cont Iss Urb Ed	1
EVR 4415 Pop & Environment	1
EMA 5001 Phys Prop Of Matls	1
EVR 4594 So Fla Ecosystems	1
EML 4220 Mech Vibrations	1
EVR 5375 Adv Restoration Ecology	1
EDF 3430 Meas Eval Classroom	1
EVT 4502 Intr Voc Spec Needs	1
ENC 3334 Intro Writing Studies	1
EXP 3523 Memory&Mem Improvmt	1
ENC 4930 Special Topics Comp	1
EEE 4717 IoT-Sec-Intro	1
ENG 4043 Contemp Lit Theory	1
FES 3804 Disaster Response	1
GER 1131 German II	1
FES 3833 Envt. Disaster Mgt.	1
GER 3420 Rev Gram Writing I	1
EEE 4752 Intro Network Forensics	1
GLY 1010 Physical Geology	1
FIL 2000 Film Appreciation	1
GLY 4300 Petrology	1
FIL 3006 Intro Film Studies	1
GLY 5475 Exploration Geophysics	1
FIL 3838 Holocaust Cinema	1
HAI 1130 Haitian Creole I	1
FIN 3005 Intro to Business Finance	1
HAI 3321 Haitian Read/Comp II	1
EDG 6286 Cur Eval & Improvmnt	1
HFT 1020 Global Bev Intro	1
FIN 3561 SMIF Fixed Income	1
EDH 6935 Special Top in Higher Ed	1
FIN 4303 Financial Mkts & Ins	1
EEL 6292 Pow Sys Eco-Mark	1
FIN 4345 Credit Anal & Ln Eva	1
EDH 6943 Practicum HEA	1
EEL 2880 C Prog Emb Sys	1
HFT 3770 Cruise Oper & Mgt	1
EEL 3110 Circuit Analysis	1
HFT 3861 Spirits Fundamentals	1
EDG 7692 Ed Policy	1
HFT 3864 Brewing Science	1
EEL 3370 C++ Prog Emb Sys	1
HFT 3871 Intro Food and Wine Pairing	1
EEL 3664 Intro to Autonomous Sys	1
HFT 4224 Human Rel Hspty	1
FIN 6425 Fin Mangt Policies	1
HFT 4294 Sr. Sem. Hosp. Mgmt.	1
FIN 6456 Quan Meth Fin Anlys	1
EDF 6487 Act Rsch Ed	1
FIN 6487 Fin Risk Management	1
HFT 4545 Mnngg High-Funct Teams	1
EEL 4062 Bus Plan Develop	1
HIM 6124 Health Arch and Standards	1
FIN 7809 Financial Theory II	1
HIS 3304 Black in Paris	1
EDH 6085 Div Soc Just High Ed	1
EEX 5068 Instr Prac Ese I	1
FOS 4041 Food Science	1
HMG 6001 Event Feasibility	1
EDF 6472 Int Dat Anly Ed Res	1
EEX 5210 Autism: Assess and Strat	1
EEL 4747 RISC	1
HMG 6466 Hosp/Tour Rev Mgt	1
FRE 2200 Intermediate French	1
EDF 6658 Sel Top Int Dev Ed	1
FRE 3420 Rev Gram/Writing I	1

EGM 3503 Applied Mechanics	1
FRE 3780 French Phonetics	1
EDP 5053 Edu Psy: Princ & App	1
EEL 4802 Intro to Digi Forensics	1
EDP 6277 Human Life-Span Dev	1
FSS 4106 Purchasing/Menu Plan	1
EMA 6516 Crystal Xrd	1
GEA 3500 People Envir of Eur	1
EDF 7476 Adv Qual Res	1
GEA 3635 People Envir Mdl East	1
EML 4806 Modeling Of Robots	1
GEB 2011 Intro To Business	1
EDF 7937 Adv Topics Soc Found	1
EEL 4804 Intro Malware Reverse Eng	1
EDF 5255 Classrm Management	1
EDH 6634 Org & Admin Stu Aff	1
EDG 6250 Curr Dev And Impr	1
GEB 7366 Fin Issues Global Environ	1
ENC 3416 Writing and New Media	1
GEB 7892 Theory Dev	1
ENC 4260 Adv Professional Writing	1
GEO 2000 Intro To Geography	1
ENC 6702 Composition Theory	1
GEO 3510 Earth Resources	1
HSC 3549 Clin Phys Hlth Prof	1
GEO 4354 Global Food System	1
GEO 4477 Crit Geopolitics	1
DAA 2610 Dance Composition I	1
AMH 3012 Amer His 1600-1763	1
ECP 3254 Women, Men, Work	1
ANT 4340 Caribbean Cultures	1
CPO 4360 Cuban Politics	1
ANT 4461 Hallucinogens & Cult	1
ADV 3200 Creative Concepts	1
ANT 4930 Topics In Ant	1
BCN 2280 Const Surveying	1
ANT 6319 African Diaspora	1
BSC 4205 Topics Organism Diversity	1
ADV 4411 Multicultural Mar Comm	1
CRW 4310 Writing Poetry	1
ADV 4711 Portfolio Workshop	1
DIE 3125 Mgmt Dietary Systems	1
ACG 6686 Fraud Examination	1
CAP 5701 Adv Comp Graphics	1
CCJ 4294 Criminal Trials	1
AST 3722 Observ Astronomy	1
ARE 4316 Sp Tch Lb: Art K-6	1
BCN 4431 Structural Design II	1
ARH 2051 Art Hist. Survey II	1
AMH 4130 American Revolution	1
CCJ 4633 Guns and Violence	1
BSC 4970 Honors Thesis	1
CCJ 4644 White Collar Crime	1
ANT 3034 Anthro Theory	1
ARH 3350 Baroque Art	1
CTS 4348 Unix Sys Admin	1
CCJ 4663 Women Crime & Cj	1
CAP 4710 Prin Comp Graphics	1
CCJ 4694 Human Trafficking	1
DIE 6568 Res I	1
CCJ 4700 Research Methods	1
EAB 5797 Single-Case Methods	1
CCJ 6485 CJ Policy Analysis	1
ECO 4701 World Economy	1
CCJ 6676 Transnational Crime	1
ASN 4810 E Asian Texts Translation	1
CCJ 6696 Human Trafficking	1
COM 4462 Conflict Management	1
CCJ 6705 Research Methods	1
BCN 3611 Const Estimating I	1
CCJ 6706 Data Analysis	1
BCN 4570 Sustain App to Const	1
CCJ 6926 Teaching Methods	1
AMH 3560 Hist Of Women In Us	1

ARH 4312 Later Italian Ren	1
AMH 4273 America in the 1960s	1
CDA 4625 Intro to Mobile Robotics	1
BSC 4434 Bioinf for Biology	1
CEG 4011 Geotechnical Engr I	1
CPO 4057 Political Vio & Revo	1
ARH 4470 Contemporary Art	1
CPO 4725 Comparative Genocide	1
ARH 4552 Arts China and Japan	1
CRW 3311 Poetic Techniques	1
CEN 4021 Software Eng II	1
CAP 4506 Intro Game Theory	1
CEN 4072 Fund SW Testing	1
CAP 4641 Intro to NLP	1
ARH 4553 Chinese Painting	1
DEP 3305 Psy Of Adolescence	1
CES 4702 Reinforced Concrete	1
DEP 4464 Psychology Of Aging	1
ECP 3302 Intro To Envir Econ	1
DIE 6128 Dietetic Adm and Mgt	1
ECP 3555 Women&Economy	1
DIG 4800 Digital Theories	1
ECW 4103 Inst & Eval Voc Edu	1
EAB 5098 Prosem Exp Behav An	1
EDA 6242 School Finance	1
EAB 6780 Ethic Code Behavior	1
CGS 2518 Computr Data Analys	1
ECO 3223 Money & Banking	1
ARH 4670 20Th C.Latin Am.Art	1
ECO 4934 Special Topics	1
CGS 4285 Appl Networking	1
COM 3417 Com in Film	1
ARH 4771 History of Digital Art	1
ASN 5130 Zen and the Arts	1
CHI 1131 Chinese II	1
ATR 7632 DAT Applied Scholarship III	1
CHI 2201 Interm CHI II	1
BCN 1272 Plans Interpret	1
CHM 1033 Survey Of Chemistry	1
COP 2270 Sec C Prog for Engineers	1
AFH 5905 Rdgs In African Hist	1
ADV 3008 Principles Of Adv	1
ARH 5362 Baroque Art	1
COP 3835 Designing Web Pages	1
ARH 5550 Arts of China and Japan	1
COP 4534 Algorithm Techniques	1
ARH 5561 Chinese Painting	1
BME 2740 BME Simulation	1
ARH 5671 20 Cent Latin Art	1
BME 3721 BME Data Eval Prin	1
CHM 3410 Phys Chem I	1
COT 3541 Logic For Comp Sci	1
ARH 5897 Special Topics	1
AMH 4573 Afro-Amer History II	1
ART 3008 Intro Arts Marketing	1
BSC 4422 Biotechnology	1
CHM 5138 Adv Mass Spec	1
CPO 3204 African Politics	1
CHM 5426 Grad Phys Chem II	1
ANT 2000 Intro Anthropology	1
ART 5853 Vis. Art Marketing	1
CPO 4303 Pol South America	1
ASH 3440 History of Japan	1
CPO 4401 Arab-Israeli Confl.	1
CHS 5542 Forensic Chemistry	1
CPO 5091 Comp Politics	1
CIS 4365 Enterprise Security	1
CAP 4104 HCI for CS	1
CJC 2000 Corrections	1
CRW 4110 Writing Fiction	1
AFS 4265 Latn Amer Caribbean Africa	1
CRW 5331 Adv Poetry Wkshop	1
CJE 3110 Policing in Society	1
CRW 6806 Teach Creative Wrt	1

ASL 1150 American Sign Language II	1
CTS 4408 Database Admin	1
CJE 4694 Cyber Crime	1
CYP 6536 Prin Meth Psy Consul	1
CJE 4717 Crime Science Capstone	1
DAN 2100 Dance Appreciation	1
CJE 6708 Efficacy of Forensics	1
DEP 4014 Psych Of Parenting	1
CJJ 2001 Juvenile Justice	1
DEP 4182 Social Development	1
ASN 3016 China Then and Now	1
DEP 5099 Prosem: Infancy	1
CJL 6421 Legal Issues in CJ	1
DIE 4506 Seminar Dietet/Nutr	1
ASN 3143 Corporate Culture China	1
DIE 6567 Res II	1
ASN 3153 Topics in Korean Culture	1
DIG 3001 Introduction to Digital Media	1
CLP 4146 Psychopathology	1
DSC 6020 Terrorism and Homeland Sec	1
ASN 3403 Zen and Tea Ceremony	1
ACG 6175 Fin Rptg And Anal	1
ADE 5387 Org Lrng and HRD	1
EAB 5655 Adv Meth Beh Chng	1
CNT 3142 Microcontrollers for IoT	1
EAB 6770 Behavioral Techno	1
CNT 4155 IoT Python Prog	1
ADV 4323 Branding and Social Media	1
CNT 4182 Mobile and IoT Security	1
ECO 3101 Intermed Microecon	1
CNT 4403 Computer Security	1
ECO 4421 Econometrics	1
ASN 3414 Visual Cultures East Asian	1
ANT 3462 Medical Anthropology	1
CNT 6156 Adv IoT Python Prog	1
ECO 7115 Micro Theory I	1
COM 3135 Managerial Communication	1
ANT 3497 Intro Qual Research Meth	1
ASN 4510 Dynamics Of Asia	1
ECS 3013 Intro To Econ Develo	1
CGN 4011 Civil Comp. Tech & Vis.	1
EDA 6222 Sch Personnel Admin	1
CGN 5930 Sp Top In Civil Eng	1
ACG 4341 Mgmt Accounting	1
CGS 1540 Intro to Database for All	1
TOTAL	2205

This page intentionally left blank

Textbook & Instructional Materials Affordability Initiatives

Describe specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials.

Affordability Counts

Launched in June 2016, the Affordability Counts (AC) collaborative initiative from FIU Online, the FIU Libraries, and the Center for the Advancement of Teaching, aims at lowering the cost of course materials to \$20 or less per credit. Faculty are encouraged to adopt open educational resources (OER) or other low-cost course materials. Qualifying courses earn the AC medallion.

In 2019, FIU Online partnered with five Universities and one state college to expand the program state-wide. The team developed <https://affordabilitycounts.org>, a new website with a searchable database of courses that use OER and low-cost materials for faculty across the state to contribute to and use as a resource in their own content curation process. In just one year, faculty at Florida state colleges and universities gained access to a statewide repository of model courses and their low-cost materials. SUS partners now include the University of Central Florida, University of North Florida, University of South Florida, Florida A&M University, Florida Atlantic University, and Lake Sumter College.

As of May 2021, over 1,261 faculty across the state of Florida have participated in this program, with over 1,900 courses designated as AC courses.

At FIU, savings are nearly \$116 per course, with the average cost of materials in AC certified courses at \$19, accounting for over \$2 million in cost savings for thousands of students. This figure does not include subsequent iterations of the courses after the AC medallion was awarded, so savings are actually higher.

FIU Libraries

The FIU Libraries provide open access, low-cost materials as well as e-materials whenever cost effective, feasible, and possible. Many faculty request e-books and other online materials in their subject areas to be added to the catalog in electronic formats. In July 2021, the FIU Libraries transitioned to a next-generation integrated library system with cloud-based services and a scalable web and mobile design that improves and expands access to library materials. Joining the other Florida state university and college libraries, the upgraded system will fully integrate the library resources into the curriculum at zero-cost to students.

E-Materials

During the pandemic, the FIU Libraries shifted to online support for faculty in identifying appropriate alternatives to print materials for their courses. The libraries activated HathiTrust Temporary Emergency Access so that faculty and students could access the print items in the library virtually. Additionally, the libraries accepted all vendor offers of free access to content. Faculty, staff and students actively used the additional content and HathiTrust as a new resource.

The FIU Libraries continues to support faculty in shifting to new formats for course materials by acquiring new e-resources with unlimited simultaneous user access to be embedded in their courses.

FIU Libraries has access to more than 4,746,739 items in e-format including e-books, streaming media (more than 118,000), government information. Furthermore, the library subscribes to more than 1,160 databases. The majority of the library databases offer a permanent URL at the article level which can be used not only for supplemental materials but to supplant a traditional textbook.

Course Reserves

Access to Course Reserves, E-Books, Databases & Library Research Tools

Course Reserves is a service available to FIU faculty to house course materials in print, electronic, and multimedia formats in compliance with the Copyright Law. Whenever possible, materials are scanned as electronic documents and made available to students 24/7 free of charge. During the academic year 2020-2021, there were a total of 13,504 Course Reserve items including books, articles, DVDs, equipment, maps, files, and more compared to 11,579 from the year before.

Additionally, the Library Learning Tools Interoperability (LTI) tool was incorporated into Canvas in 26 classes. The 844 Library Research Guides were viewed 866,938 times, the E-Books and Database lists were viewed 115,000+ times, and there were more than 1.8 million library website views.

Open Educational Resources (OER)

Subject librarians continue to collaborate with faculty in finding, vetting, and implementing OER materials for courses. Sarah J. Hammill, Business & Online Learning Librarian served on the Florida OER Summit 2021 Committee in May. She vetted proposals, served as a moderator, and participated in discussions related to the focus of the conference. Her service validates and reaffirms FIU's support to OER initiatives both on campus and to the OER community at large.

FIU College of Law Library

By leveraging library-provided subscription-based resources via multi-year contractual agreements for subscription materials that are purchased regardless of their utilization as course materials, the College of Law realized a 201% return on investment for our law students. This ROI does not account for actual valuation of individual course materials given the steep discounts realized by the Law Library when subscribing to packages provided by Wolters Kluwer, West Academic, Thomson Reuters, and Lexis Nexis. The Law Library typically subscribes to these materials as part of its collection to support student learning and faculty research needs. Through these efforts, we saved students \$195,858.61 in out-of-pocket costs for assigned course materials across 63 law courses.

College of Law # of Courses	63
College of Law # of Students	2,989
Savings	\$195,858.61
Library Subscription Costs	\$64,970.82
ROI	201%

Financial Aid Textbook Advances

Students receiving financial aid may apply for a book advance through the Office of Financial Aid. This aid ensures that students can purchase their course materials prior to the start of the semester and are prepared for class on the first day.

Term	Student Count	Book Advance Aid Awarded
Fall 2020	3,538	\$1,499,229
Spring 2021	2,733	\$1,200,000
Total	6,271	\$2,699,229

Barnes & Noble Textbook Affordability Initiatives

Barnes & Noble FIU bookstores continue to offer cost savings through alternative formats such as used, rental and digital textbooks with new titles continuously added. Students may save as much as 80% by purchasing textbooks in alternative formats offered.

For Fall 2020 and Spring 2021 the Barnes & Noble FIU bookstores offered 75% and 74% respectively of all textbooks as rental option with discounts of up to 80%. The rental utilization rates of all book transactions for Fall and Spring were 51% and 49% respectively. The digital availability of textbooks was consistently at 41%, with discounts of up to 60% and utilization rates of 34% in Fall and 38% in Spring. Used textbook purchases represented 14.2% and new and used textbook rentals represented 19.6% of all textbook transactions in the Fall and Spring semesters. By taking advantage of used, new rental, used rental, or digital discount options, students saved \$999,959 (19%) in the Fall 2020 and Spring 2021 semesters.

Barnes & Noble @ FIU Price Match Program

Barnes & Noble is matching the prices for textbooks advertised or offered by a local competitor, BN.com, or Amazon. For the past year, Price Match savings of \$922 were passed on to students, bringing the program total to \$136,648 matched since program inception in Spring 2016.

Adoptions & Insights Portal (AIP) Development

Beginning with the Summer 2020 semester, FIU transitioned to Barnes & Noble's new textbook adoption platform Adoptions & Insights Portal (AIP). AIP not only offers a more user-friendly selection and entry process for faculty and staff, it also features a dashboard

with adoption submission reporting across all academic departments. FIU members of the Textbook Affordability Task Force have continuously worked with Barnes & Noble corporate leaders and its technical team to optimize system operations and functionalities also as they pertain to enforcing and documenting requirements by the Florida Statute on Textbook and Instructional Materials Affordability.

Has the *opt-in* provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has had on student savings, if any.

FIU did not implement an opt-in textbook program in the 2020-2021 academic year.

Has the *opt-out* provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has had on student savings, if any.

FIU did not implement an opt-out textbook program in the 2020-2021 academic year. The institution will pilot an inclusive access program with an opt-out provision across all undergraduate course sections in Fall 2021.

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.

FIU's Regulation 1103 on Textbook Affordability requires all instructors to post required and recommended textbooks and course materials 45 days in advance of the first day of classes. The Office of the Provost has established a communication timeline to remind course instructors, chairs and deans each semester of the respective adoption deadline. The first notification is sent out 75 days prior to the start of the next semester. Repeat reminders follow 60 and 55 days out. As of 50 days prior to the start of the next semester, the respective department chairs are required to submit any pending adoptions on behalf of their faculty. Any adoptions that are not considered exceptions or do not meet the posting requirement, are centrally reviewed for standard justifications (i.e. the adoption was submitted on time but the material could not be sourced by the bookstore).

Effective Summer 2020, faculty utilize Barnes & Noble's custom-built adoption platform Adoptions & Insights Portal (AIP), which links this information to FIU's course registration system for all courses and course sections. Barnes & Noble piloted AIP at FIU in the Summer of 2020 and fully deployed in Fall 2020. The user-interface for the entry of adoptions, communication tools, as well as the dashboard for the reporting of timely adoption submissions all have greatly improved the process. AIP's configuration is also in alignment with the State of Florida's requirements in regard to enforcing adoption submissions by the legal deadline. In addition, Barnes & Noble maintains a searchable website for FIU Course Materials on which students can find required or recommended course materials by campus, term, department, course and section. The website also details pricing options for all items (i.e. rent new, rent used, buy new, buy used, rent digital, buy digital) acquired through Barnes & Noble FIU book stores.

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?

Overall, the policies sufficiently guide the institutional policies and common practices for textbook and course materials adoptions and selections processes. In regard to ensuring timely adoptions and documenting justifications for late submissions, we have designed a process to collect such justifications at the time an adoption is entered in AIP. This feature was deployed in Fall 2021 and will enable us to provide comprehensive reporting of justified late adoptions. This process design has been created in consultation with our SUS sister institutions FAMU, FGCU and UCF to establish a consistent approach for all campuses that utilize Barnes & Noble's Adoptions & Insights Portal.

Fall 2020				
Total Course Sections at the 45-Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Materials After The Deadline)	% Of Course Sections Meeting Requirement	# Of Course Sections That Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Materials After The Deadline)
5,183	4,964	95.68%	95	129
				4.32%

Spring 2021				
Total Course Sections at the 45-Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Materials After The Deadline)	% Of Course Sections Meeting Requirement	# Of Course Sections That Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Materials After The Deadline)
5,436	5,187	95.42%	99	150
				4.58%

****Note:** Per Board Regulation 8.003 (1) (n), 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.

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 2020				
Total # of Course Sections (Not Including Exceptions)	# of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column A + Column B)	% Of Total Course Sections That Were Identified As Exceptions	Reasons For Exceptions
5,188	2,635	7,823	34%	Non-lecture/labs that

Spring 2021				
Total # Of Course Sections (Not Including Exceptions)	# Of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column G + Column H)	% Of Total Course Sections That Were Identified As Exceptions	Reasons For Exceptions
5,436	2,304	7,740	30%	Non-lecture/labs that

**THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES**

Academic Policy and Student Affairs Committee

September 14, 2021

Subject: Proposed Amendment to Regulation FIU-2501 Student Conduct and Honor Code

Proposed Committee Action:

Recommend that the Florida International University Board of Trustees approve the revisions to Regulation FIU-2501 Student Conduct and Honor Code, and delegate authority to the University President to approve any subsequent non-material amendments based on comments to the Regulation received from the Florida Board of Governors (BOG).

Background information:

Florida Board of Governors Regulations 1.001(4)(a)(10), University Board of Trustees Powers and Duties, and 6.0105, Student Conduct and Discipline, grant university boards of Trustees authority to establish a student disciplinary system, including a code of conduct.

Florida Board of Governors Regulation 1.001(4)(a)(10), states, in part, as follows: “Each board of trustees shall adopt university regulations or policies, as appropriate, in areas including, but not limited to: ... uniform student code of conduct and related penalties.”

Florida Board of Governors Regulation 6.0105 states, in part, as follows: “In furtherance of the educational mission of the universities, each university board of trustees shall establish a student disciplinary system, including a code of conduct...”

In response to litigation involving FIU during academic year 2021 and revisions during the 2021 Legislative Session to sections 1004.097 and 1006.60, Florida Statutes, the proposed changes to FIU Regulation 2501: Student Conduct and Honor Code (Code) are submitted for review and approval by the Board of Trustees.

The following changes are now presented for approval:

- Inserting into the Code, two Academic Misconduct provisions which were approved by the Faculty Senate during the 2019 merger of academic and behavioral misconduct into the integrated Code, but were inadvertently not included due to a scrivener’s error;
- Updating the Code to include the following revisions:
 - Providing advisors with participatory rights in the conduct process;
 - Adding the required language regarding the impartiality of hearing officers
 - Adding a set charging timeline;
 - Adding a classroom lecture recoding amnesty provision;
 - Clarifying information provided in the notice letter;
 - Clarifying that an Information Session is not a disciplinary proceeding;
 - Updating relevant notice and evident exchange timelines;

- Updating the rights of a Student Organization Respondent to mirror those of an Individual Respondent; and,
- Non-substantive, editorial formatting corrections.

Supporting Documentation: Regulation FIU-2501 Student Conduct and Honor Code
Executive Summary of Revisions to FIU-2501 Student
Conduct and Honor Code

Facilitator/Presenter: Elizabeth M. Bejar



THE FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES

Proposed Changes to Regulation FIU-2501 Student Conduct and Honor Code September 14, 2021

Overview

In response to litigation involving FIU during academic year 2021 and revisions during the 2021 Legislative Session to sections 1004.097 and 1006.60, Florida Statutes, the proposed changes to FIU Regulation 2501: Student Conduct and Honor Code (Code) are submitted for review and approval by the Board of Trustees.

Executive Summary

During litigation involving FIU, entitled *Murray v. FIU*, the court found that FIU's Code did not sufficiently explain to students that use of one's work previously submitted in a course could not be resubmitted in a subsequent course without approval.

Section 1004.097, Florida Statutes, revised during the 2021 Legislative Session, added requirements designed to protect the expression of diverse viewpoints at state colleges and universities, some of which must be noted within the Code (e.g., recordings of class lectures). Additionally, revisions to Section 1006.60, Florida Statutes, expands due process protections for all students and student organizations (e.g., allow student advisors to fully participate in conduct hearings, seven (7) business days for notice of disciplinary proceeding).

The following changes are presented now for approval:

- Inserting into the Code, two Academic Misconduct provisions which were approved by the Faculty Senate during the 2019 merger of academic and behavioral misconduct into the integrated Code, but were inadvertently not included due to a scrivener's error.
- Updating the Code to include the following revisions:
 - Providing advisors with participatory rights in the conduct process;
 - Adding the required language regarding the impartiality of hearing officers
 - Adding a set charging timeline;
 - Adding a classroom lecture recoding amnesty provision;
 - Clarifying information provided in the notice letter;
 - Clarifying that an Information Session is not a disciplinary proceeding;
 - Updating relevant notice and evident exchange timelines;
 - Updating the rights of a Student Organization Respondent to mirror those of an Individual Respondent; and
- Non-substantive, editorial formatting corrections.

This page intentionally left blank

**THE FLORIDA INTERNATIONAL UNIVERSITY BOARD OF TRUSTEES
FLORIDA BOARD OF GOVERNORS**

NOTICE OF CHANGE TO PROPOSED AMENDMENT TO REGULATION

REGULATION NO.: FIU-2501

REGULATION TITLE: Student Conduct and Honor Code

SUMMARY: Proposed revisions to Regulation FIU-2501 Student Conduct and Honor Code (Code) are based on litigation involving FIU during academic year 2021 and revisions to sections **1004.097** **and** 1006.60, Florida Statutes, effective July 1, 2021.

TEXT OF REGULATION: The full text of the Proposed Regulation can be viewed below and on the website of The Florida International University Board of Trustees, <http://regulations.fiu.edu>. If you would like a copy of the Proposed Regulation, please contact Eli Deville, Departmental Administrator, Office of the General Counsel at (305) 348-2103.

AUTHORITY: Article IX, section 7(d), Florida Constitution; Florida Board of Governors 1.001; Florida Board of Governors Regulation 6.010; and Florida Board of Governors Regulation 6.0105.

NAME OF PERSON INITIATING PROPOSED REGULATION: Dr. Elizabeth Bejar, Senior Vice President for Academic & Student Affairs.

ANY PERSON SEEKING TO COMMENT ON THE PROPOSED REGULATION MUST SUBMIT COMMENTS IN WRITING TO THE CONTACT PERSON LISTED BELOW. ALL WRITTEN COMMENTS MUST BE RECEIVED BY THE CONTACT PERSON WITHIN 14 CALENDAR DAYS OF THE DATE OF PUBLICATION OF THIS NOTICE.

CONTACT PERSON REGARDING THE PROPOSED REGULATION:

Eli Deville, Departmental Administrator, Office of the General Counsel
Florida International University, 11200 SW 8 Street, PC 511, Miami, FL 33199
Email: devillee@fiu.edu | Phone: (305) 348-2103, Fax: (305) 348-3272

DATE OF PUBLICATION: September 9, 2021

THE FULL TEXT OF THE PROPOSED AMENDED REGULATION IS PROVIDED BELOW WITH THE CHANGES HIGHLIGHTED IN YELLOW:

FIU-2501 Student Conduct and Honor Code

As an academic community, Florida International University (FIU) fosters the intellectual exchange of ideas, knowledge, and experience. It is the responsibility of the University to provide a safe and stimulating environment in which scholarship and personal growth may occur. The desired effect is that Students will take advantage of this environment to develop intellectually as well as to participate as responsible, contributing citizens of our community. Being a contributing Student also comes with responsibility to adhere to the Student Conduct and Honor Code (Code). The ultimate responsibility for knowing University requirements and regulations rests with the Student, regardless of institutional or program affiliation. Nothing in this Regulation should be interpreted to abridge the right of any member of the University community of rights granted under the United States or Florida Constitution and/or any other applicable law including, but not limited to, the freedom of expression protected by the First Amendment. Those charged with and found Responsible for violations of the Code will be subject to appropriate action as outlined herein. For the most updated Code, please refer to the website of Student Conduct and Academic Integrity (SCAI) at conduct.fiu.edu.

Undergraduate, Graduate, and Professional Students at FIU are expected to adhere to the highest standards of integrity in every aspect of their lives. Honesty in academic matters is part of this obligation. Each Student shall be responsible for their conduct from the time that they have been notified of admission through the actual awarding of a degree, including the academic year and during periods between terms of actual enrollment. The Code shall apply to a Student's conduct even if the Student withdraws from the University, while a conduct matter is pending, or if the conduct is not discovered until after a Student has withdrawn or a degree has been awarded. Academic integrity is the adherence to those special values regarding life and work in an academic community. Code violations may lead to suspension or expulsion from the University if a determination of responsibility has been made. These sanctions will be determined based on severity of incident and prior violations of the Code.

The safety and well-being of our community is the University's foremost concern. It is the policy of the University that acts of harassment and violence will not be tolerated. Any act of intimidation, threat of violence, or act of violence committed against other members of the University when committed within the jurisdiction of the Code is prohibited. Any Student or Student Organization found responsible for a violation of this standard will be subject to discipline up to and including expulsion pursuant to the Code.

Any Sexual Misconduct or Sexual Harassment, as defined pursuant to FIU-Regulation 105, will be handled in accordance with FIU-Regulation 105.

1. DEFINITIONS

i. **Academic Misconduct:** Any act or omission by a Student, which violates the concept of academic integrity and undermines the academic mission of the University in violation of the Code.

ii. **Advisor:** Any person chosen by the Respondent- to assist throughout the Student Conduct and/or Academic Misconduct processes (e.g., faculty, staff, parent/guardian, attorney, friend, alumni), ~~or any other person who is not a Witness in the process~~. The Advisor may not

be a Witness or serve in any other role in the current process including investigator, decider or fact, hearing officer, member of a committee or panel convened to hear or decide the charge or any appeal. The advisor may be present to advise the Respondent and may participate in all aspects of the proceeding but shall not testify for the Respondent. Proceedings may not be unreasonably delayed due to the selection of schedule of an advisor, and it is the responsibility of the Respondent to communicate relevant information to their advisor and to ensure that their advisor comports themselves in a manner which respects the educational-administrative conduct process. After an appropriate warning, the University reserves the right to stop a proceeding and remove an advisor whose presence disrupts the conduct proceedings. If a Respondent elects to have an advisor speak on their behalf, the Respondent is endorsing the veracity (truthfulness) of all statements made by the advisor.

iii. **Business Day:** A day when the University is open for regular business operations from 8:30 a.m. up to 5:00 p.m. Eastern Standard Time. In computing any time-period specified in this Code, the day of the event, act, or default that initiates the period shall be excluded.

iv. **Character Witness Statement:** A statement relating to the general character and reputation of the person.

v. **Charge:** The written statement of the alleged violations of the Code.

vi. **Coercion:** Conduct, intimidation, and/or expressed or implied threats of physical, emotional, financial, or any other type of harm that would reasonably place an individual in fear of immediate or future harm and that is employed to force or compel someone to engage in any sexual contact or any other type of involuntary conduct not covered by FIU Regulation 105, especially conduct which would endanger or be detrimental to the Complainant. Examples of Coercion include:

i. Causing the deliberate Incapacitation (see below for definition) of another person; and

ii. Conditioning an academic benefit or employment advantage;

vii. **Consent:** Incorporated as defined by FIU Regulation 105.

viii. **Final Agency Action:** The written decision resulting from the Student Conduct and/or Academic Misconduct processes which finally determines the rights or obligations of the Respondent. Decisions of the Hearing Body constitute Final Agency Action unless there is a timely appeal. If a decision is timely appealed, the decision of the appellate body constitutes Final Agency Action.

ix. **Hazing:** Any action or situation that recklessly or intentionally endangers the mental or physical health or safety of a Student for purposes including, but not limited to, initiation or admission into, affiliation with, or the perpetuation or furtherance of a tradition or ritual of any Student Organization operating under the sanction of the University or other organization or group not officially recognized by the University. Although hazing is typically related to a person's initiation or admission into, or affiliation with a Student Organization, athletic team (intramural, club or intercollegiate), extracurricular activity or any other University group or organization, it is not necessary to have direct proof that a person's initiation or continued membership is contingent upon participation in the activity for a charge of hazing to be upheld. The actions of active, prospective, former, or associate members (pledges) of a Student organization may be considered hazing. Organizational leaders who plan a hazing event will be held Responsible even if not in attendance at an event where the hazing occurs. Hazing does not include customary athletic events or similar contests or competitions or any activity or conduct that furthers a legal and legitimate objective.

x. **Hearing Body:** Student Conduct hearings consist of a Hearing Officer (Administrative Hearing) or, if a Student Conduct Committee, two (2) Students, a faculty/staff member, and a nonvoting Hearing Officer. Academic Misconduct hearings consist of a Hearing Officer (Administrative Hearing) or, if a Student Conduct Committee, three (3) Students, and two (2) fulltime faculty members, and a non-voting Hearing Officer. The Hearing Body is authorized by the Senior Vice President for Academic & Student Affairs or designee to conduct Student Conduct hearings as set forth in this Code, and do so in an impartial manner.

xi. **Hearing Officer:** The SCAI Director, or respective designee(s) who adjudicates the case in an impartial manner. For cases involving Academic Misconduct, representatives from Housing and Residence Life may not serve as a Hearing Officer.

xii. **Immediate Medical Assistance:** Aid that includes, but is not be limited to, calling or seeking additional assistance, rendering cardiopulmonary resuscitation (CPR) to a victim, clearing an airway for the victim to breathe, using a defibrillator (AED) to assist the victim, or rendering any other assistance to the victim which the Student intended in good faith to stabilize or improve the victim's condition while waiting for medical assistance or law enforcement to arrive.

xiii. **Impact Statement:** A statement (oral or in writing) that describes how the Reporting Party or Respondent has been impacted by the incident that is the basis for the Charge.

xiv. **Incapacitation:** Incapacitation is the inability, temporarily or permanently, to give Consent because the individual is mentally and/or physically helpless, or the individual is unconscious, asleep, or otherwise unaware that the activity is occurring.

xv. **Instructor:** The Instructor of record for a course in which a violation(s) of Academic Misconduct is alleged.

xvi. **Interim Suspension:** An immediate temporary (i.e., a limited period of time) separation from the University.

xvii. **On-Campus Housing:** Such housing owned, controlled, and operated by the University to include, but not limited to, the following: Everglades Hall, Lakeview Halls (North & South), Panther Hall, Parkview Hall, University Apartments, and University Towers. On-Campus Housing also includes Bayview Student Living (BBC), or any fraternity or sorority houses located on University Premises.

xviii. **Policy:** The written procedures, policies, or regulations of the University (as they may be amended from time to time) as found in, but not limited to, the Florida International University Board of Trustees regulations, the Code, FIU Regulation 105, the Undergraduate/Graduate/Professional Catalogs, the Student Handbook, the University Housing Resident Handbook, and/or Campus Life/Wellness & Recreation Center policies.

xix. **Preponderance of the Evidence:** When the information that is presented supports a finding that it is more likely than not that a violation occurred.

xx. **Receipt of Written Notice:** When Written Notice (see below for definition) has been sent electronically to the official University email address.

xxi. **Reporting Party:** Any person who reports an alleged violation of the Code.

xxii. **Respondent:** A student or student organization charged with violating the Student Conduct and Honor Code.

xxiii. **SCAI Director:** The Director of Student Conduct and Academic Integrity Academic Integrity (SCAI) or designee.

xxiv. **Student:** Any person who participates in any course or program of the University, either full-time or part-time, in-person or online, and whether degree-seeking or non-degree seeking. Persons who withdraw after allegedly violating the Code, persons who are not officially enrolled at the University for a particular term but who have a continuing relationship with the University, persons who have been notified of being accepted for admission, and persons who are living in the residence halls but are not enrolled at the University are also considered Students.

xxv. **Student Organization:** A Student group that is officially registered or recognized by the University, including, but not limited to, political groups, social groups, honor & professional societies, fraternities & sororities, and sport clubs. Membership in a student organization does not affect an individual Student's status with the University or attendance at classes unless the individual Student has been charged and sanctioned independently.

xxvi. **Title IX Coordinator:** The individual University official with the primary responsibility for coordinating the University's compliance with Title IX. The Deputy Title IX Coordinator is an individual(s) designated by the Title IX Coordinator to support the Title IX Coordinator with respect to the University's efforts to comply with Title IX.

xxvii. **University:** Florida International University.

xxviii. **University Community:** Any person who is a Student, faculty or staff, any other person currently employed by the University, or third party working on University Premises or within On-Campus Housing (i.e. contractor, vendor), or any participant in a University-sponsored program or activity regardless of the location of the program or activity.

xxix. **University Official:** Any person employed by the University to perform assigned teaching, research, administrative, professional or other responsibilities (e.g., faculty, staff, administrators, residence hall staff, FIU Police).

xxx. **University Premises:** Any building or property owned or controlled by the University within the same reasonably contiguous geographic area and used by the University in direct support of, or in a manner related to, the University's educational purposes, including residence halls; and any building or property that is within or reasonably contiguous to that previously described in this paragraph that is owned by the University, but that is controlled by another person, is frequently used by students, and supports University purposes (e.g., a food or other retail vendor). This definition is designed to conform to the Clery Act definition which can be amended from time to time.

xxxi. **Witness:** A person(s) who has factual knowledge about the incident which forms the basis of the Charge.

xxxii. **Written Notice:** A notification of the charges against the Respondent sent via email to the Respondent's official University email address. A notification to a Student Organization Respondent sent via email to the official University email address of the Student Organization's President.

2. JURISDICTION

i. Jurisdiction under the Code applies to the conduct of any Student or Student Organization that while the student meets the definition of "student" as articulated in 1.x and the student organization meets the definition of "student organization" as articulated in 1.y, regardless of the geographic or electronic location.

ii. A conduct proceeding is not a criminal or judicial proceeding. It is designed to address the Respondent's behavior. Therefore, alleged violations of the Code will be addressed

independently of any criminal or judicial proceeding and regardless of whether the criminal charges have been dismissed or reduced to a lesser offense. In extra-ordinary situations, and at the request of external law enforcement or prosecutor's office, the University may delay its application of this Code.

iii. The Code does not address: Issues related to research misconduct or violations of FIU Regulation 105. Resolutions of issues related to research misconduct must be addressed using the University Research Misconduct policy; or, issues related to professional misconduct. Resolutions of issues related to professional misconduct must be addressed at the school or college level. Violations of FIU Regulation 105 will be addresses in accordance to that Regulation.

iv. Filing Time: Anyone may report an alleged Code violation within ninety (90) calendar days of the incident or obtaining knowledge about the incident, whichever is later. In addition, the SCAI Director may extend the filing time where the delay may be related to issues of victimization or beyond the control of the University.

iv.v. Charging Time: The University must charge an alleged Code violation within ninety (90) calendar days of receiving the Incident Report. The SCAI Director may extend the charging time for extraordinary situations (e.g. hurricane, emergency personnel matters).

3. AUTHORITY

i. The Board of Trustees of Florida International University has been charged with the responsibility of, and authority for, providing a Student conduct system. Authority for Student discipline and the Student conduct system rests with the University President. Although the University President holds the ultimate authority for Student discipline, this authority is delegated to the Senior Vice President for Academic & Student Affairs, who is responsible for implementing the Student disciplinary system. The Senior Vice President for Academic & Student Affairs delegates authority for the execution and implementation of the Code to the SCAI Director.

ii. The requirements and procedures in the Code may be revised. Those revisions may occur in order to serve the needs of the University Students, faculty and/or staff where safety and security issues so demand. In addition, those revisions may occur in circumstances where, in the University's sole discretion, the requirements and procedures described herein are deemed insufficient to meet the objectives of educating and protecting the members of the University community and/or to respond to changes in the law. Nothing in this Code shall be construed as preventing the University President from taking any action which may be deemed necessary to meet the goals of this Code. In matters involving charges for drug distribution and/or sales (Section 5(i)(2)), endangerment (Section 5(j)), hazing (Section 5(p)), stalking (Section 5(y)), and weapons (Section 5(dd)) the President may change the outcome and/or sanctions to fulfill requirements of the Code as outlined in Section 17.

iii. The Department of Housing and Residential Life (HRL) may conduct both Summary Resolutions and Administrative Hearings regarding cases involving Conduct violations arising in On-Campus Housing. HRL is not authorized to conduct Summary Resolutions and Administrative Hearings regarding cases involving Academic Misconduct violations or Student Conduct Committee hearings. HRL cases may be referred to SCAI.

4. AMNESTY

i. Medical Amnesty for Alcohol or Drug Use: The University encourages Students to seek medical assistance, but it recognizes that students may be hesitant to make a call or report when they:

- i. Need immediate medical assistance due to their own use of alcohol/drugs; or,
- ii. Witness another Student who needs immediate medical assistance due to alcohol/drugs.

Thus, students involved in an incident involving alcohol/drugs will not be charged under the Code with consumption if:

- iii. they render or call for immediate medical assistance for themselves and/or others who have participated in or witnessed the incident;
- iv. the Student calling for immediate medical assistance remains at the scene with the person in need of immediate medical assistance until such assistance arrives and then cooperates with such personnel on the scene; and,
- v. the student timely completes the appropriate educational intervention for the incident as determined by SCAI. Other charges related to the incident (e.g., alcohol distribution, drug distribution, or other non-alcohol/drug charges) may be determined at the discretion of the SCAI Director.

While student organizations are not eligible for amnesty, calling for medical assistance will be a mitigating factor, while failing to call or removing a person in need of medical assistance will be an aggravating factor at any sanctioning stage.

ii. Reporting Amnesty: The University encourages Students to report allegations of the Code, including allegations of FIU Regulation 105, but recognizes that students may be hesitant to make a report when they were using alcohol/drugs. Thus, students involved in an incident involving alcohol/drugs will not be charged under the Code with consumption if they are reporting a violation of the Code or FIU Regulation 105. Any other charge(s) related to the incident may be determined at the discretion of the SCAI Director, but the reporting will be a mitigating factor at any sanctioning stage.

While student organizations are not eligible for reporting amnesty, reporting and self-reporting will be a mitigating factor, while failing to report will be an aggravating factor at any sanctioning stage.

iii. Investigatory Amnesty: As part of an investigatory process, and conditioned on being truthful and providing complete information, a witness or party may be asked to provide information which would self-disclose a Code violation. Without abridging the right of any member of the University community of rights granted under the United States or Florida Constitution and/or any other applicable law including, but not limited to the Fifth Amendment, disclosing a Code violation such as alcohol/drugs use related to an incident being investigated and outlined in the investigation will not be charged under the Code. All other charges related to the incident may be determined at the discretion of the SCAI Director, but additional amnesty may be provided under e of this provision.

iv. Hazing Amnesty: A Student may not be charged under the Code if the Student establishes that, before medical assistance or law enforcement arrived on the scene of a hazing event, the Student rendered aid to the hazing victim and establishes all of the following: i. the Student was present at an event where, as a result of hazing, a person appeared to be in need of immediate medical assistance; and ii. The Student was the first person to call 911 or FIU Police to report the need for immediate medical assistance; and iii. the Student provided their own

name, the address where immediate medical assistance was needed, and a description of the medical issue to the 911 operator or FIU Police at the time of the call; and, iv. the Student remained at the scene with the person in need of immediate medical assistance until such medical assistance or law enforcement arrived and that the Student cooperated with such personnel on the scene.

iv.v. ~~Recording Amnesty in Compliance with Florida Statute section 1004.097 and 1001.03, Florida Statutes: A student may video or audio record a class lecture for their own personal educational use, in connection with a complaint to a public institution of higher learning where the University the recording was made, or as evidence in, or in preparation for a criminal or civil proceeding. A recorded lecture may not be published without the consent of the lecturer.~~

v.vi. ~~Amnesty at the SCAI Director's Discretion: The SCAI Director may grant amnesty from proceedings within the conduct system, contingent on a student providing complete and accurate information during an investigation or conduct proceeding.~~

5. CONDUCT VIOLATIONS The following conduct is prohibited by this Code. These violations are included in each section below and need not be cited separately. Lack of familiarity with University policy is not a defense to a violation of this Code. Unless specifically noted, intent is not a required element to establish a policy violation. Additionally, intoxication or impairment caused by use or consumption of alcohol, drugs, or other substances is not a defense to a violation of this Code. The following conduct violations or any attempt to violate the Code will be used in charging all Students or Student Organizations.

- i. **Any** conduct prohibited by FIU Regulation 105.
- ii. **Assisting:** Any affirmative act which aids, attempts, promotes, conceals, or facilitates any act prohibited by this Code.
- iii. **Attempt:** Attempt or intent to commit any violation outlined in the Code.
- iv. **Alcohol:** Students who choose to drink will be held fully responsible for their behavior while under the influence of alcohol. Loss of control due to intoxication does not excuse or justify a violation of the state law, University Policy, or the rights of others.
 - i. Possession, use and/or consumption of alcohol when under the legal drinking age as provided by Florida Law.
 - ii. Dispensing, selling or supplying alcoholic beverages to an individual who is under the legal drinking age as provided by Florida Law.
 - iii. Any violations of FIU Policy governing alcohol usage. See, FIU-Regulation 2505 Alcoholic Beverages.
 - iv. Use and/or possession of beer kegs and party balls or other common sources of alcohol.
 - v. Possession of open containers of alcohol or consumption of alcoholic beverages in public areas, such as balconies, courtyards or hallways.
 - vi. Public intoxication (e.g., appearing in a state of intoxication) and/or excessive drinking.
 - vii. Use and/or possession of devices designed for the rapid or excessive consumption of alcohol, including, but not limited to, funnels, ice luges, and beer bongs.
 - viii. Hosting or sponsoring a gathering where underage individuals are drinking alcohol.
 - ix. Unlawful manufacture, trade, and/or intent to sell alcohol.

x. Reporting to classes, work, or related assignments “under the influence” of alcohol.

xi. Violating any other University Policy while under the influence of alcohol.

v. **Animals:** The University allows individuals to bring animals on University Premises in accordance with federal laws. A service animal is permitted on campus grounds and within University buildings, including the University housing assignment provided to an individual with a disability. An emotional support animal is permitted on campus to accompany an individual into his or her University assigned residence in accordance with the U.S. Department of Housing and Urban Development.

i. Failing to obtain approval from Housing and the Disability Resource Center (DRC) for the Student’s emotional support animal (as defined by federal law) in a residence hall.

ii. Having an approved emotional support animal beyond authorized areas (i.e., within the residence halls and immediate access to outdoor areas).

iii. Failing to register the Student’s service animal (as defined by federal law) with the DRC if the Student resides on campus.

iv. Failing to properly control the service animal and/or emotional support animal such that the animal is disruptive, is not housebroken, or poses a safety or health concern.

v. Bringing pet dogs, cats, or other animals (except non-dangerous fish) to campus or being in possession of stray animals.

vi. **Bribery:** Knowingly making an offer, gift, receipt, or solicitation of money, materials, goods, services or anything of value for the Student or others for the purpose of procuring or providing an advantage to which they are not otherwise legally entitled.

vii. **Computer Misuse**

i. Unauthorized access, entry or use of a computer, computer system, network, software, password, account or data.

ii. Unauthorized alteration or degradation of computer equipment, software, network, data or system performance.

iii. Unauthorized copying or distribution of computer software or data.

iv. Unauthorized use, taking, or theft of University computer resources for commercial purposes or personal financial or other gain. This includes, but is not limited to, advertising a product or service on personal web pages, fund-raising or advertising on behalf of unsanctioned non-University organizations, publicizing of unsanctioned non-University activities, resale of University resources to any non-University individuals or organizations, and the unauthorized use of the University’s name or logos. Use of the University’s network for any of these purposes, even if the user is using their own personal computer, constitutes an offense.

v. Allowing another person to use one’s FIU username and password.

vi. Any other violation of the University computer use and web page policies.

The complete policies are available at <http://security.fiu.edu/policies>. The website also contains the civil and criminal penalties for distributing, without authority, copyrighted materials (including unauthorized peer-to-peer file sharing) and the penalties for violating federal copyright law.

vii. Unauthorized distribution or downloading of copyrighted materials, including but not limited to, unauthorized peer-to-peer file sharing. This is a violation whether

the user is using their own personal computer or the University's information technology system for the unauthorized distributions.

viii. **Disruptive Conduct**

i. that substantially and materially disrupts, disturbs, impairs, interferes with or obstructs the orderly conduct, processes and functions of the University or the rights of other Members of the University community.

ii. Behavior that substantially and materially disrupts, disturbs, impairs, interferes with or obstructs the orderly conduct, processes, and functions of the classroom, or laboratory and/or immediate surrounding areas. This includes interfering with the academic mission of the University or individual classroom or interfering with a faculty member or instructor's role to carry out the normal academic or educational functions of their classroom laboratory and/or immediate surrounding areas.

iii. Behavior that substantially and materially disrupts, disturbs, impairs, interferes with or obstructs the Student Conduct process, including, but not limited to, harassment and/or intimidation of any member of the Student Conduct Committee, Witness or University personnel before, during or after a proceeding, or attempting to coerce or influence any person(s) in order to discourage their participation in any Student Conduct proceeding.

iv. Any behavior that substantially and materially disturbs the peace.

ix. **Drugs**

Students who choose to use illegal drugs or use prescription drugs without a prescription will be held fully responsible for their behavior while under the influence. Loss of control due to being under the influence does not excuse or justify a violation of the state law, University Policy, or the rights of others.

i. Possession, use, the manufacture, creation and/or the cultivation of illegal drugs or prescription drugs without a prescription. Inhalable or ingestible substances (e.g., nitrous oxide, glue, paint) that will alter a Student's mental state.

ii. Distribute, dispense, deliver, trade, sell and/or attempt to sell drugs or prescription drugs.

iii. In possession and/or use of drug paraphernalia (including, but not limited, to bongs, pipes, "hookahs," spoofs, rolling papers, blunts, small plastic baggies).

iv. Misuse and/or abuse of prescription drugs.

x. **Endangerment**

i. Occurs when one intentionally or recklessly (a) causes bodily harm to another person; (b) attempts to cause bodily harm to another person; or (c) puts another in fear of imminent bodily harm. No Student may knowingly or recklessly touch any other person without that person's consent. Punching, slapping, scratching, or otherwise striking any person with any part of one's body or with any object constitutes physical violence.

ii. Engage in any action(s) that endangers the health, safety or welfare of others.

xi. **Failure to Comply**

i. Failure to comply with a request or directive of a University Official or non-University law enforcement official in the performance of their duty.

ii. Failure to comply with the final decision and sanctions rendered by a Student Conduct hearing or appellate body.

iii. Failure to comply when a University Official requests to identify oneself and/or produce FIU identification.

xii. **Falsification/Fraudulent Activity/False Testimony**

- i. Withholding relevant information from any Hearing Body, University Officials, non-University law enforcement officers, faculty and/or staff.
- ii. Providing false or misleading information (whether oral or written) to any Hearing Body, University Officials, non-University law enforcement officers, faculty and/or staff. A good-faith report of prohibited conduct does not constitute a Code violation.
- iii. Misuse, reproduction, alteration or forgery of any identification, documents, keys or property.
- iv. Permitting another person to use one's identification information.
- v. Misuse or possession of false identification information
- vi. Purporting to act on behalf of another person, group or the University without authorization or prior consent.
- vii. Providing a worthless check, money order or using a fraudulent credit card or a credit card without authorization.
- viii. Any other acts of falsification/fraud/false testimony or misrepresentation.

xiii. **Fire and Safety**

- i. Inappropriate activation of any emergency warning equipment or the false reporting of any emergency.
- ii. Removing, damaging, interfering and/or tampering with fire safety or other emergency warning equipment, including smoke detectors, sprinklers and/or fire alarms. Items may not be hung from or block sprinklers or smoke detectors.
- iii. Failure to evacuate University Premises or On-Campus Housing facility/unit when a fire alarm is activated.
- iv. Engaging in action(s) which cause or attempts to cause the release of chemicals or substances that can cause harm to another person's health or would start a fire or explosion.

xiv. **Gambling**

- i. Soliciting, placing or accepting a bet on any high school, intercollegiate or professional athletic contest on University Premises, On-Campus Housing, or at a University or Student Organization-sponsored activity or event.
- ii. Soliciting, facilitating or participating in any illegal gambling, bookmaking or illegal betting whether through a bookmaker, a parlay card, a pool or any other method of organized gambling on University Premises, On-Campus Housing, or at a University or Student Organization-sponsored activity or event.

xv. **Harassment:** Severe or pervasive interactions aimed towards another or entity which is by objective measure threatening, abusive, or severely annoying and that is beyond the scope of free speech and which is not covered by FIU Regulation 105.

xvi. **Hazing**

- i. Any group or individual action or activity that inflicts or intends to inflict physical or mental harm or otherwise endanger or discomfort which may demean, disgrace and/or degrade any person, regardless of location, intent or consent of participant(s). Taking into consideration the aforementioned description, hazing includes, but is not limited to:
 1. Interference with a Student's academic performance;
 2. Forced consumption of any food, alcohol, controlled substances, drugs or any other substance;

3. Forced physical activity (e.g., calisthenics, line-ups, walking or marching in formation);
 4. Deprivation of food, water or sleep;
 5. Not permitting individuals to speak for extended periods of time and/or forced exclusion from social contact;
 6. Engaging in activities which involve compelling an individual or group of individuals to remain at a certain location or transporting anyone anywhere within or outside the University (e.g., road trips, kidnaps, drops);
 7. Physical or mental abuse of any nature, including physical discomfort;
 8. Sexual misconduct of any nature;
 9. Theft, defacement or destruction of private or public property;
 10. Compelling the performance of personal chores or errands;
 11. Verbal abuse or degradation, including yelling or demands;
 12. Assigning or endorsing pranks (e.g., stealing, harassing other organizations);
 13. Conducting activities designed to deceive or convince a member that they will not be initiated or that they will be hurt;
 14. Compelling scavenger hunts, treasure hunts, quests, road trips, big brother/little brother hunts, big sister/little sister hunts;
 15. Any action or threatened action that would subject the individual to embarrassment, humiliation or mental distress, including the use of demeaning names; or
 16. Any other acts or attempted acts which would constitute hazing pursuant to Section 1006.63 of the Florida Statutes.
- ii. The following shall not constitute a defense to Hazing:
 1. The consent of the victim was obtained;
 2. The conduct or activities that resulted in death or injury to the victim was not part of any official organizational event or otherwise sanctioned or approved by a Student Organization or group; or
 3. The conduct of activity that resulted in death or injury to the victim was not done as a condition or membership into a Student Organization or group.

xvii. **Motorcycles, Bicycles, Pocket Bikes, Rollerblades, or Skateboards**
 Failure to comply with FIU Regulation 115 Skateboards, Skates, Scooters, Ripstiks, Hoverboards and other similar devices and high-risk activities on University Premises or in On-Campus Housing.

xviii. **Obstruction**
 Taking action, individually or working with others, which the Respondent knew or should have known would impede an investigation by the University into possible violations of the Code committed by a Student and/or Student Organization, including failing to participate in a University investigation or proceeding if not the Respondent.

xix. **On-Campus Housing Violations**
 Violation(s) of any HRL policies published in hard copy or available electronically via the HRL website (<https://studentaffairs.fiu.edu/campussservices/housing-and-residential-life/explore-housing/housingpolicies/index.php>).

xx. **Personal Abuse**

i. Verbal or written abuse, threats, intimidation, and/or Coercion that objectively endangers the health, safety or well-being of others and which is not covered by FIU Regulation 105. Using fighting words or statements which reasonably endanger the health and safety of any person that are not protected speech may result in University action. Conduct directed at any person, including a Member of the University community, which is intended to, or would reasonably, cause fear, distress, injury or intimidation to a person, or would place a reasonable person in fear of injury or death.

ii. Conduct that is based on race, color, religion, ethnicity, national origin, disability, age, marital status, genetic information, veteran status or any group/class protected by federal or Florida law sufficiently severe, pervasive or persistent (when viewed both from a reasonable person in similar circumstances and the person in question) that a person would be adversely affected to a degree that interferes with or limits their ability to participate in or benefit from the services, activities or opportunities offered by the University.

iii. Interference with the freedom of another person or group to move about in a lawful manner.

xxi. Promotions/Posting

i. Solicitation of commercial speech on campus, including On-Campus Housing facilities, without prior approval from the appropriate University Officials. This includes, but is not limited to, the distribution of any forms of promotional/informational commercial speech material on University Premises or On-Campus Housing or objects (e.g., motor vehicles).

ii. Posting of flyers, posters, banners, cards or any promotional/informational material on University Premises or On-Campus Housing, including, but not limited to, the exterior and interior of On-Campus Housing facilities, buildings, trees, walls, sidewalks, vehicles, windows, stairwells, stairs, display cases, vending machines, doors, classrooms, departmental and unauthorized bulletin boards, railings, elevators, bathrooms, art and/or sculptures without prior approval from the appropriate University Officials.

xxii. Retaliation

i. Acts or words taken against an individual because of the individual's participation in a protected activity that would discourage a reasonable person from engaging in protected activity. Protected activity includes an individual's good faith

1. Participation in the reporting, investigation, and/or resolution of an alleged violation of this Code; and/or

2. Opposition to policies, practices and/or actions that the individual reasonably believes are in violation of the Code. Retaliation may include intimidation, threats, coercion, physical harm and/or adverse employment or educational actions. Retaliation may be found even when an underlying report made in good faith was not substantiated. Retaliation may be committed by the Respondent, the Reporting Party, or any other individual or group of individuals.

xxiii. Smoking and Use of Tobacco-Related Products

i. Failure to comply with FIU Regulation 113 Smoke and Tobacco-Free Campus by smoking in or on any University Premises or On-Campus Housing. Smoking means possession of a lighted cigarette, cigar, pipe, water pipe or hookah, or the use of an electronic cigarette, cigar, pipe, vape or any other device intended to simulate smoked tobacco.

ii. Use of smokeless tobacco, snuff, chewing tobacco, smokeless pouches and any other form of loose-leaf or smokeless tobacco.

xxiv. Social Host Responsibility:

Allowing, permitting, or providing an opportunity for a guest to violate University policy.

xxv. Stalking

Engaging in a course of conduct directed at a specific person, not covered under FIU Policy 105, that would cause a reasonable person to (a) fear for the person's safety or the safety of others; or (b) suffer substantial emotional distress. For the purposes of this conduct violation, course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens or communicates to or about a person, or interferes with a person's property.

xxvi. Student Organization Policies

i. Members of the Student Organization acting together to violate University Policy.

ii. More than one Student working together to impede an investigation by the University into possible violations of the Code committed by a Student Organization.

iii. Acting to protect from official action one or more alleged individual offenders who are members, former members or guests of the Student Organization.

iv. Leaders of the Student Organization who fail to report and/or take reasonable action against guests and/or members responsible for alleged violations.

v. Violation(s) of any Campus Life/Fraternity and Sorority Life/Sports Club Policies published in hard copy or available electronically via the appropriate website. See <https://studentaffairs.fiu.edu/get-involved/campus-life/index.php>, <https://studentaffairs.fiu.edu/get-involved/sorority-and-fraternity-life/index.php>, or <https://studentaffairs.fiu.edu/health-and-fitness/recreation/index.php>.

xxvii. Theft and Theft-Related Conduct

i. Taking, or use of, the property or services of another person or of the University without prior written consent or authorization of the person or of the appropriate authority.

ii. Possession and/or sale of property or services of another person or of the University without prior written consent or authorization.

xxviii. Trespassing/Unauthorized Use

Unauthorized presence in or unauthorized use of University Premises or On-Campus Housing, facility or restricted area.

xxix. Vandalism/Damage/Littering

i. Damage, destruction or defacing property of another person, group or the University.

ii. Dispersing litter in any form on University grounds or facilities, including, but not limited to, cigarette butts, flyers, cans, and bottles.

xxx. Weapons, Firearms, Explosives

i. Possession, storage or use of firearms, except as provided in below, explosives, ammunition or other weapons or dangerous articles or substances, including, but not limited to tasers, switchblade knives and non-lethal weapons such as fireworks, paintball guns, air guns, BB guns, any dangerous chemical or biological agents, corrosive agents, compressed gas, sling shots, brass knuckles, Chinese stars, or any other item used as a weapon.

1. In accordance with Florida Statutes section 790.115, possession of firearms on University Premises or On-Campus Housing (except as provided by Florida Statutes section 790.25(5)).

2. Possession of a concealed weapon or firearm on University Premises or On-Campus Housing even if the Student possesses a concealed weapon license.

ii. Notwithstanding the foregoing, weapons, including non-functioning antique display weapons, may be used for classroom instructional purposes or other University sanctioned activities (e.g., firearms under the direct supervision of ROTC, a diver's knife for a scuba divers' class) but only with prior approval by the appropriate University Official.

iii. Threat of the use of a weapon or weapons that could, or would, cause distress or injury to a member or members of the University community or damage to University Premises or On-Campus Housing.

xxxi. **Other Violations**

i. Aids or abets another in any violation of federal law, state law, local ordinance, and/or Policy not already listed above.

ii. Violations of federal and/or state laws, local ordinance, and/or Policy not already listed above.

6. ACADEMIC MISCONDUCT VIOLATIONS

i. Academic Dishonesty

In general, by any act or omission not specifically mentioned in the Code and which is outside the customary scope of preparing and completing academic assignments and/or contrary to the above stated policies concerning academic integrity.

ii. Bribery

The offering of money or any item or service to a member of the faculty, staff, administration, Student or any other person in order to commit academic misconduct.

iii. Cheating

i. The unauthorized use of any materials, information, study aids or assistance from another person on any academic assignment or exercise, unless explicitly authorized by the course Instructor.

ii. Assisting another Student in the unauthorized use of any materials, information, study aids, unless explicitly authorized by the Instructor.

iii. Having a substitute complete any academic assignment or completing an academic assignment for someone else, either paid or unpaid.

iv. Commercial Use

The selling of course material to another person, Student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the University and the Instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, tests, quizzes, labs, instruction sheets, homework, study guides and handouts.

v. Complicity

The planning or acting with one or more fellow Students, any member of the faculty, staff or administration, or any other person to commit any form of academic misconduct together.

vi. Falsification of Records

The tampering with or altering in any way of any academic record used or maintained by the University.

vii. Misrepresentation

- i. Intentionally lying to a member of the faculty, staff, administration, or an outside agency to gain academic advantage for oneself or another.
- ii. To misrepresent or in other ways interfere with the investigation of a charge of academic misconduct.

viii. Multiple Submission

Submitting the same or substantially the same academic work (including oral presentations) for credit more than once. Multiple submissions shall not include situations where the prior written approval by the instructor in the current course is given to the student to use a prior academic work or endeavor. It is each instructor's responsibility to make expectations regarding incorporation of existing academic work into new assignments clear to the student in writing.

~~7.~~ viii. Plagiarism

- ~~8.~~ i. The deliberate use and appropriation of another's work without any indication of the source and the representation of such work as the Student's own.
- ii. Assisting another Student in the deliberate use and appropriation of another's work without any indication of the source and the representation of such work as the student's own.

~~9.~~ 7. INVESTIGATION AND PRE-ADJUDICATION PROCEDURES

- i. Initiating Charges for Conduct Violations: Any person or entity (including University departments, offices, officials, community members) may report an alleged violation(s) of the Code for review by SCAI by:
 - i. Submitting a police report that has been filed with any police department;
 - ii. Providing a SCAI incident report (see <http://conduct.fiu.edu> for report) along with accompanying documentation; or
 - iii. Making an oral report to SCAI.
- ii. Initiating Charges for Academic Misconduct Violations: Any person or entity (including University departments, offices, officials, community members) may report an alleged violation(s) of the Code for review by the SCAI by:
 - i. Submitting the alleged violation(s) through the Academic Misconduct Report Form (AMR) along with any accompanying documentation (see <http://conduct.fiu.edu> for report). Instructors are encouraged to discuss the allegations with the Student prior to referral to SCAI.
 - ii. If a Student, staff member, or a person not affiliated with the University observes a Student committing an Academic Misconduct violation, they may report the alleged violation to SCAI via the standard incident reporting form (see <http://conduct.fiu.edu> for report). SCAI will then communicate with the appropriate faculty member, chair, or College/School Dean.
 - iii. All matters relating to Academic Misconduct among undergraduate, graduate, and professional Students are referred to the SCAI Director or designee. In matters where there is a conflict of interest with the SCAI Director, the case will be referred to the Senior Vice President for Academic & Student Affairs or designee.

iii. **Preliminary Review:** The SCAI Director will determine, at their discretion, whether further fact-finding is needed and whether there is sufficient information to file charges or refer to another University office regardless of the participation of any party in the proceedings.

i. Upon receiving an alleged violation of Academic Misconduct, the SCAI Director may review relevant information and consult with relevant parties regarding the incident in question. In addition, Instructors can request an intake meeting with SCAI staff to review allegations, the Charges, possible Sanctions, and to be explained the Student conduct process, and any available forms of resolution. Reasonable efforts will be made to hold this intake meeting at least ten (10) Business Days before any scheduled hearing.

iv. **Interim Measures:** Until final agency action or there is a such a change in circumstances that the decision-maker for each action below no longer supports such an action, the following interim measures may be implemented as follows:

i. **No-Contact Directive:** In cases involving allegations of, hazing, personal abuse, retaliation, stalking, or other menacing activity or concerning behavior, the SCAI Director, after making a reasonable effort to meet with the Respondent if appropriate to do so, may issue a No-Contact Directive.

ii. **Restriction of Privilege or Access Directive:** In cases involving allegations of hazing, personal abuse, retaliation, stalking, trespassing, or other menacing activity or concerning behavior, the SCAI Director, after making a reasonable effort to meet with the Respondent if appropriate to do so, may issue a Restriction of Privileges or Access Directive.

iii. **Interim Suspension**

1. Where the Senior Vice President for Academic & Student Affairs or designee determines that the health, safety or welfare of University community are in jeopardy or in danger, an interim (temporary) suspension will be imposed. This includes, but is not limited to, physical assault, hazing, possession of a firearm or explosives, illegal drug possession and other acts of a similar nature. A Respondent under Interim Suspension is considered not in good standing with the University, resulting in applicable restrictions on privileges and/or activities. The Respondent may neither attend nor participate in any classes, including any online components, during this time. The Respondent is also banned from being on or in any University Premises and/or On-Campus Housing, and from participation in any University-sponsored/related event or activity. The Respondent, except with the permission of the SCAI Director.

2. The Respondent may petition the Student Conduct Committee (SCC), in writing, for a review of the decision; the University will submit to the SCC, in writing, relevant information related to the decision to impose an interim suspension. The SCC shall meet to consider the petition as soon as possible, but typically no later than five business days after it receives the petition. If the SCC determines that the suspension was improper or is no longer necessary, it shall lift the suspension immediately and the underlying matter shall proceed. The SCC may implement any alternative interim measures if it lifts the interim suspension.

3. The Respondent's transcript will remain notated during the interim suspension.

4. If a Respondent's privileges are temporarily revoked through an Interim Suspension and the Respondent is subsequently found not responsible for the violation, the University must, to the extent possible:

a. Correct any record of the change in enrollment status in the Respondent's permanent records and reports in a manner compliant with state and federal laws; and

b. Refund to the Respondent a pro rata portion of any charges for tuition, and out-of-state fees, as appropriate, relating to the temporary revocation or suspension which affected the Respondent's ability to attend classes for more than ten (10) school days.

v. **Investigations:** The SCAI Director retains the discretion to determine whether an investigation should be conducted, and the scope of such investigation based on the alleged violations under the Code. The investigation will be a neutral fact-finding process used to determine if there is sufficient information to warrant action by the University. If the SCAI Director directs an investigation to another office to act on behalf of SCAI, including the Department of Housing and Residence Life or the Office of Inclusion, Diversity, Equity & Access (IDEA), the Director of such office, or designee, shall conduct the investigation in accordance to the Code and relevant processes and procedures, so long as such procedures do not conflict with this Code or applicable University Policy which has jurisdiction over the reported behavior. For cases in which there is an overlap of charges between the Code and FIU Regulation 105, a joint investigation will commence, and the details of the Code investigation will be included in the FIU Regulation 105 final report or considered as part of the informal resolution. The Code behaviors will cede to adjudication and appeal under the process set forth in FIU Regulation 105.

In cases where conduct involves both potential Conduct and Academic Misconduct violations, the Hearing Officer or Hearing Body has the authority to handle both matters simultaneously through a joint hearing. If a Student is found Responsible for simultaneous Conduct and Academic Misconduct violations, sanctions from both processes may be imposed.

vi. **Charge Letter:** The Respondent will be given a written notice of the Charges. The Charge Letter will include the following:

i. Notice of the charge(s), including specific code section(s) which constitutes the alleged violation(s) of the Code, an allegations statement and any other detail in order to prepare for a Student Conduct proceeding, [including the process to be used in determining whether a violation has occurred and associated rights](#); and

ii. Information regarding next steps, [including the date, time, and location of the disciplinary proceeding](#).

vii. **Joint Hearings:** Cases that present common questions of conduct- or fact and that would come before a panel of like composition may be joined for hearing.

i. For a joint hearing, the individual who conducted the information sessions must affirm, in writing, to the Hearing Officer that each Respondent performed acts sufficiently similar that the facts presented in evidence would not differ materially from one Respondent to another. In such case, the Hearing Officer may order joinder of such cases for hearing.

ii. Any Respondent, whose case is joined may request, in writing, to the Hearing Officer to be excluded from the joint hearing on the ground that (i) they are not charged with the same offense, at the same time and place, or (ii) that the facts relevant to them would differ materially from the facts relevant to the Respondent(s). The Hearing Officer's decision regarding whether any requesting Respondent be severed from the joint hearing in final.

iii. All decisions regarding responsibility under this Code, and any applicable sanctions or remedies will be rendered individually, and each Respondent remains entitled their own advisor.

viii. **Information Session:** An information session is designed to provide the Respondent with information about the adjudication process, as well as giving access to the information supporting the charge(s) available at that time. The information session is not a disciplinary proceeding but may transition to such a disciplinary proceeding if the Respondent waives any applicable disciplinary proceeding rights not met in order to accept a Summary Resolution.

i. Subsequent to the information session, the Hearing Officer may conduct further fact-finding regarding the incident that is subject to the charge. This information will be communicated to the Respondent prior to the hearing or at a subsequent meeting before a hearing.

ii. If a Respondent fails to attend a scheduled information session, the Respondent will be deemed to have waived their right to an information session. Under those circumstances, a hearing will be scheduled. Failure to attend an information session will result in the Hearing Officer determining the type of hearing. The hearing type will be determined based on the severity of the possible sanctions (e.g., suspension/expulsion cases may be referred to the Student Conduct Committee).

iii. If the Respondent fails to attend the information session, the Hearing Officer may place a hold/service indicator on the Respondent's record until the conclusion of the hearing. If sanctions are imposed as a result of the hearing, the hold/service indicator will be retained until the Respondent fulfills all of the sanctions.

ix. **Student Academic Status Pending the Code Process:** The Student's academic status will remain unchanged pending the outcome of the Code process, except where the Senior Vice President for Academic & Student Affairs or designee has implemented an interim suspension. When a final grade for a course may be involved, a grade of IN should be assigned, pending the University's final decision in the matter. A Respondent's ability to register for future semesters may be temporarily placed on hold.

~~10.8.~~ **RESOLUTION OPTIONS**

A Respondent is entitled to a resolution of any alleged violation of the Code through a disciplinary proceeding unless waived as set forth below. Two (2) types of resolution options are provided by the Code.

i. Summary Resolution

i. A summary resolution is available when the Respondent waives the right to a hearing, -any applicable disciplinary proceeding rights not met, and requests that the Hearing Officer conducting the information session determine the findings and sanctions if applicable. The Hearing Officer reserves the right to conduct fact-finding to make an informed decision.

ii. The following apply to a summary resolution:

1. The meeting(s) will not be recorded.
2. The written decision will serve as the official record of the

Summary Resolution.

3. The written decision will be sent to the Respondent within fourteen (14) Business Days from the date of the Summary Resolution. For Academic Misconduct violations, the written decision will also be sent to the Instructor.

iii. If the Respondent does not choose the Summary Resolution (or the option is unavailable), the Respondent may indicate their preference for one of the two (2) types of hearings.

ii. **Hearings:** Two hearing types are available under the Code: 1) an Administrative Hearing, or 2) a Student Conduct Committee (SCC) hearing. All procedures described in the Hearing Procedures section apply to these types of hearings.

i. Administrative Hearing - Conducted by a Hearing Officer who serves as the Hearing Body.

ii. SCC Hearing - Conducted by a committee which serves as the Hearing Body. SCC committees for Conduct violations consist of two (2) Students, one (1) faculty or staff member, and a non-voting Hearing Officer. SCC committees for Academic Misconduct violations consist of three (3) Students, two (2) full-time faculty members, and a non-voting Hearing Officer. The non-voting Hearing Officer will moderate the hearing.

iii. For SCC Hearings, members of any particular committee will vary, but will come from a pool of qualified faculty, staff and Students. Faculty members can be recommended annually by the Faculty Senate. Undergraduate, graduate, and professional Student members will be recruited and selected through SCAI's formal SCC recruitment and selection process. All members of the SCC will be trained by SCAI. In cases where the Respondent is an undergraduate, every effort will be made to select undergraduate student representatives for the SCC. In cases where the Respondent is a graduate or professional student, every effort will be made to select graduate or professional student representatives for the SCC. For Academic Misconduct violations, the committee must include two full-time faculty members, and if the Respondent is a graduate or professional student faculty representatives must have at least Graduate Faculty status. For cases in which there is an overlap of charges under only the Code (Academic misconduct and a non-FIU Regulation 105 violation), the Hearing Body shall meet the requirements of the Academic Misconduct hearing.

iv. For cases in which there is an overlap of charges between the Code and FIU Regulation 105, the Code behaviors will cede the adjudication processes under that Regulation.

iii. The SCAI Director retains the discretion to ultimately determine which hearing forum is appropriate.

iv. All hearing(s) will be conducted in private or in accordance with applicable law.

11.9. HEARING NOTIFICATION AND INFORMATION EXCHANGE

i. **Scheduling:** Hearings may be scheduled during class periods. Every effort will be made to avoid a class conflict; however, due to availability of persons involved in the hearing and meeting room, it may not be possible.

ii. **Hearing Notice:** The notice of a hearing, including date, time and location will be sent to the official University email address of the Respondent, or typically to the official University email address of the President of the Student Organization, at least seven (7) five (5) Business Days prior to the hearing unless waived by the Respondent. The Instructor will also be notified in Academic Misconduct cases. The Hearing Officer has the discretion to provide notice through additional means (e.g., overnight or hand delivery). The delivery notification of the hearing notice through the official University email will constitute full and adequate notice under the Code. The Respondent may waive the notice period by indicating the waiver in writing.

i. The notice will include the names of witnesses to be called by the University and a list of information to be used in the hearing, which may be different from what was presented in the information session or subsequent meetings.

ii. The notice will also indicate the name(s) of the Hearing Body member(s) if known at the time, but will be provided before the start of the hearing.

iii. **Witnesses and Information**

i. At least five (5) business days prior to the hearing the University must will provide the names of all known witnesses and all information related to the allegation, including inculpatory and exculpatory information, subject to applicable redaction in accordance with federal and state law, to the Respondent.

ii. At least five (5) business days prior to the hearing the Respondent must provide the names of all known witnesses and all information to be used in the hearing. Acceptance or denial of witnesses and/or information, based on relevancy, is within the discretion of the Hearing Officer, but the University will not consider polygraph reports.

iii. Character witnesses or witnesses to other incidents outside the specific incident in question will not be allowed to testify at a hearing. The Respondent may provide the Hearing Body with character witness statements (which will only be considered during the sanctioning phase, if applicable).

i. Witnesses: In addition to witnesses to be called by the University, the Respondent may request the presence of additional witnesses to voluntarily present relevant information on their behalf.

1. The Respondent must provide the Hearing Officer with the names of all additional witnesses in writing at least three (3) Business Days prior to the hearing.

2.1. The Hearing Officer will determine the admissibility of testimony from additional witnesses. Character witnesses or witnesses to other incidents outside the specific incident in question will not be allowed to testify at a hearing. The Respondent may provide the Hearing Body with character witness statements (which will only be considered during the sanctioning phase, if any).

3.iv. The Respondent is responsible for contacting and notifying the additional witnesses they wish to call for the hearing.

4.v. The proceedings shall not be delayed due to scheduling conflicts of witnesses. Failure of any witness to appear shall not require a delay or affect the validity of the proceedings. If called witnesses do not appear, their written statements, if they exist, will be considered by the Hearing Body. Witnesses can appear in person or by contemporaneous alternative means (e.g., Skype, phone).

5.vi. The Hearing Officer has the discretion to limit the number of witnesses whose testimony may be duplicative, redundant or not in dispute.

6.vii. The Hearing Officer may place limits on the length of testimony and also may advise to the scope, direction or tone of questioning.

ii.viii. The Instructor of the course in which the alleged Academic Misconduct violation(s) have occurred will always be requested to attend the hearing. The Instructor is strongly encouraged to participate in the hearing procedure.

~~The Respondent may inspect all of the information that will be presented at the Hearing at least three (3) Business Days before the hearing.~~

~~iii. The Respondent must submit any information they intend to use at a hearing at least three (3) Business Days before the hearing. Relevant records, exhibits, and statements may be accepted at the discretion of the Hearing Officer. The University will not consider polygraph reports.~~

~~iv. Acceptance or denial of witnesses and/or information is within the discretion of the Hearing Officer.~~

~~v. Information and/or the names of witnesses will be provided to the Hearing Body prior to the Hearing.~~

iv. Challenging a Member of the Hearing Body/Change of a Hearing Body Member

i. The Respondent may challenge the inclusion of any member at least three (3) business days prior to the scheduled hearing. The challenge must be in writing and must show actual bias (such as a conflict of interest, animosity, pressure or influence) that would preclude a fair and impartial hearing. The Hearing Officer will determine whether to grant such challenge in their discretion, and such decision is final and not appealable.

ii. If a Hearing Body member is unable to serve due to an emergency or unforeseeable occurrence, the Hearing Officer will appoint a new hearing body member prior to the scheduled hearing and notify the Respondent as soon as possible. The Respondent may challenge the inclusion of this member at the time of the hearing. The challenge must be on the basis outlined above.

v. Request for a Postponement: Any request to postpone a hearing must be submitted in writing or by email and must be received by the SCAI Director at least two (2) business days prior to the hearing. The request must state the reason(s) for the postponement. The granting of such requests shall be at the discretion of the SCAI Director. The University is not required to postpone a proceeding pending the outcome of a criminal prosecution. The University may postpone the hearing, at any time, for extraordinary situations (e.g. hurricane, emergency personnel matters).

12.10. ADVISOR FOR THE RESPONDENT

i. The Respondent may be accompanied by an advisor of their choosing and at their expense at any time during the Code process.

i. It is the responsibility of the Respondent to make appropriate arrangements for the advisor to attend the proceeding. The proceedings shall not be delayed due to scheduling conflicts of the chosen advisor. If the advisor is an attorney, the attorney must comply with the same restrictions imposed on any other advisor.

ii. The Respondent is responsible for presenting their own information, and therefore, advisors are not permitted to speak or to participate directly in any process under this Code.

iii. Although the Respondent may consult with their Advisor during the hearing, this consultation must take place in a manner that does not disrupt the proceedings.

iv. The Advisor chosen by the Respondent cannot be a witness in the matter.

v. SCAI can provide the Respondent with a list of Advisors who can provide assistance in preparing a response to the reported Code violation.

13.11. DUE PROCESS RIGHTS OF THE RESPONDENT: The Respondent has the following rights:

i. Reasonable, written notice of the Code charge(s) and the allegations upon which the charge(s) is/are based.

~~ii.~~ A presumption that no violation occurred.

~~iii.~~ A fair and impartial hearing.

~~iv.~~ The right to be accompanied by an Advisor of their choice and expense at any time during the Code process.

~~v.~~ The opportunity to review all relevant information or evidence to be used in the hearing prior to the hearing.

~~vi.~~ The ability to participate in the Student Conduct hearing either physically or by contemporaneous alternative means (e.g., Skype, phone).

~~vii.~~ The opportunity to present, or have your advisor present relevant witnesses and information at the hearing.

~~viii.~~ The opportunity to question, or have your advisor question witnesses in accordance with the Hearing Procedures.

~~ix.~~ Not to provide self-incriminating testimony. ~~(This right does not apply to Student Organizations.)~~ Invoking the right against self-incrimination will not be considered as a negative factor in the decision of the Hearing Officer or Hearing Body.

~~x.~~ Receive notification of the decision of the Hearing Body in writing within fourteen (14) Business Days of the hearing.

~~xi.~~ Appeal the decision via the process established by the University.

14.12. PRINCIPLES OF GROUP RESPONSIBILITY

i. Any Student Organization can be held responsible under the Code for its actions or those of its members acting together. Misconduct on the part of the organization will be addressed when one or more of the following circumstances occur:

i. An alleged violation arises out of a Student Organization-sponsored, financed or otherwise supported activity.

ii. An alleged violation occurs on University Premises or On-Campus Housing and/or transportation owned, operated or rented exclusively by the Student Organization.

iii. A pattern of individual alleged violations has occurred and/or continues to occur without adequate control, response or sanction on the part of the Student Organization or its leaders.

iv. The Student Organization or its related activities provided the context for the alleged violation.

v. The action resulting in the alleged violation has received either the implied or overt consent of the Student Organization and/or its leaders.

vi. The Student Organization overtly places or implicitly allows active members of the Student Organization to be in a position to act on behalf or with the authority of the Student Organization.

ii. The actions of active, prospective, or associate members (pledges) of a Student Organization may be considered hazing. Refer to Section 5 for full details on Hazing.

iii. It is the responsibility of the Student Organization's President or Student-member designee to represent the organization through the conduct process.

15.13. HEARING PROCEDURES

i. During the hearing, the Hearing Officer presides over the Code hearing and makes all procedural decisions.

ii. The burden of proof in a hearing rests with the University and Respondents are presumed Not Responsible. The standard of proof is a Preponderance of the Evidence. The determination of “Responsible” or “Not Responsible” will be based solely on the information and/or testimony presented.

iii. Formal rules of process, procedure and/or technical rules of evidence (including hearsay rules) applicable in the criminal or civil court process are not used in Code proceedings.

iv. Witnesses only participate in the hearing to the degree that a question is posed to them. They may not speak or otherwise participate in the Hearing.

v. In Code hearings involving Academic Misconduct violations, the Instructor can choose to be present in the hearing in its entirety and to ask questions of the Respondent and witnesses when prompted. The Hearing Officer has the discretion to require the Instructor to step out of a hearing if non-academic student conduct issues are being discussed.

vi. The hearing will be recorded. The recording will serve as the only official record of the proceedings. No other recordings are permitted.

vii. If the Respondent, or Instructor fails to appear at the scheduled hearing, the hearing will be held, and a decision will be rendered in their absence.

viii. Upon request by the Respondent or witnesses, the Hearing Officer may permit the individual to provide relevant information during the hearing in a manner that avoids direct contact with the Respondent.

ix. For Code hearings involving Conduct Violations, the Hearing Officer has the discretion to determine the order of the hearings which may involve, but is not limited to, the following:

i. Introductory statement by Hearing Officer including a reading of the allegations and charge(s), introduction of information that is the basis for the charges, and identification of the hearing participants.

ii. Statement by the Respondent [or Respondent’s Advisor](#) and submission of any previously submitted relevant written information (e.g., records, exhibits, written statements) except for witness statements (see below) for consideration by the Hearing Body.

iii. Questions directed to the Respondent by the Hearing Body.

iv. Presentation of witnesses and any results of fact-finding conducted prior to the hearing.

v. The Respondent [or Respondent’s Advisor](#) may pose questions directly to the witness. In certain circumstances to be determined by the Hearing Officer, questions may be presented in writing to the Hearing Officer who will then ask the witness the question(s).

vi. Submission by the Respondent [or Respondent’s Advisor](#) of written statements (if any) of witnesses who are not present.

vii. Follow-up questions (if any) directed to the Respondent by the Hearing Body.

viii. Final statement by the Respondent [or Respondent’s Advisor](#).

ix. Hearing Officer brings hearing to closure.

x. For Code hearings involving Academic Misconduct Violations, the Hearing Officer has the discretion to determine the order of the hearings which may involve, but is not limited to, the following:

i. Introductory statement by Hearing Officer including a reading of the allegations and charge(s), introduction of information that is the basis for the charges and identification of the hearing participants.

ii. Statement by the Instructor and submission of any previously submitted relevant written information (e.g., records, exhibits, written statements) except for Witness statements (see below) for consideration by the Hearing Body.

iii. Statement by the Respondent [or Respondent's Advisor](#) and submission of any previously submitted relevant written information (e.g., records, exhibits, written statements) except for Witness statements (see below) for consideration by the Hearing Body.

iv. Questions directed to the Instructor by the Hearing Body and the Respondent [or Respondent's Advisor](#).

v. Questions directed to the Respondent by the Hearing Body and the Instructor.

vi. Presentation of witnesses and any results of fact-finding conducted prior to the hearing.

vii. The Respondent [or Respondent's Advisor](#) may pose questions directly to the witness(es).

viii. The Instructor may pose questions directly to the witness(es).

ix. Submission by the Respondent [or Respondent's Advisor](#) of written statements (if any) of witnesses who are not present.

x. Submission by the Instructor of written statements (if any) of witnesses who are not present.

xi. Follow-up questions (if any) directed to the Instructor by the Hearing Body and Respondent.

xii. Follow-up questions (if any) directed to the Respondent by the Hearing Body and the Instructor.

xiii. Final statement by the Instructor.

xiv. Final statement by the Respondent [or Respondent's Advisor](#).

xv. Hearing Officer brings hearing to closure.

xi. Deliberation by the Hearing Body is held outside the presence of the Respondent for all hearings, and Instructor, for hearings involving Academic Misconduct violations.

xii. Prior Student Conduct and Academic Misconduct records, Character Witness Statements and/or Impact Statements are considered only in determining the appropriate sanction(s).

xiii. In Code hearings, the SCC will make a recommendation of the decision and sanctions to the Hearing Officer. The Hearing Officer may take one of these actions with respect to the recommendation:

i. Adopt;

ii. Modify;

iii. Reject the findings and sanctions; or,

iv. Remand for a rehearing.

If the Committee decision is not adopted, the Hearing Officer will include the reasons for any differences between the recommendations of the Committee and the Hearing Officer's final decision as part of the decision letter.

xiv. A decision letter will be sent to the Respondent within fourteen (14) Business Days from the conclusion of the Hearing Body's deliberation. The hearing decision will include the decision, sanctions imposed (if applicable) and the explanation of the right to appeal. For Academic Misconduct violations, the written decision will also be sent to the Instructor.

xv. This Regulation acknowledges the Instructor authority to award Student grades. If the Student is found "Not Responsible" for alleged violations of Academic Misconduct, the faculty member should reinstate the grade the Student would have received if the misconduct charges were not submitted and -any reduction in grade should be based on the Student's quality of work and not an allegation of Academic Misconduct.

~~16.14.~~ **TITLE IX PROCEDURES**

Conduct meeting the definition of Sexual Harassment or Sexual Misconduct (including the Violence Against Women Act violations incorporated via the Clery Act) are administered via FIU Regulation 105. SCAI serves as the central repository for all student sanctions administered under the Code and FIU Regulation 105, and any prior misconduct under the Code or FIU Regulation 105 is considered in any sanctioning stage of either proceeding.

~~17.15.~~ **SANCTIONS**

i. Sanctions may only be imposed when a Respondent has been found in violation of the Code. In cases where a Respondent has been found "Not Responsible" for the alleged violation(s), no sanctions will be assigned.

ii. In light of the facts and circumstances of each case, the following sanctions or combination of sanctions (with or without appropriate modifications) will be imposed upon any Respondent found to have violated the Code or FIU Regulation 105. Sanctions will be commensurate with the prohibited conduct with consideration given to any aggravating and mitigating circumstances, including, but not limited to, the Respondent's conduct and Academic Misconduct record. Fees may be associated with certain sanctions (e.g., counseling consultation, online programs) and are the Respondent's responsibility.

iii. When an undergraduate student is found Responsible for Academic Misconduct violations, SCAI will determine any University Sanctions which are not related to a grade or the course in general. The Instructor and Chair (or designee) will recommend Course Sanctions and communicate their recommendation to SCAI. SCAI will then communicate the final outcome to the student. Should the Instructor fail to provide SCAI with recommended course sanctions within seven (7) Business Days, SCAI may assign Course Sanctions. If the undergraduate student is a member of the Honors College, SCAI will notify the Dean of the Honors College that a student was found in violation and ask if the College wishes to invoke any Honors College-level academic action(s). The Dean of the Honors College will determine if Honors College action is necessary. SCAI will be notified within seven (7) Business Days if the Dean recommends additional program action.

iv. When a graduate or professional student is found Responsible for Academic Misconduct violations, SCAI notifies the Instructor, Dean or designee of the University Graduate or Professional School, and the Dean or designee of the Academic College in which the graduate or professional student resides. SCAI will determine any University Sanctions, which are not

related to a grade or the course. The Instructor and Dean (or designee) will recommend Course Sanctions and communicate their recommendation to SCAI. Should the Instructor fail to provide SCAI with recommended course sanctions within seven (7) Business Days, SCAI may assign Course Sanctions. The College Dean or designee will in turn notify the graduate or professional program that a student was found in violation and ask if the program wishes to invoke any program-level academic action(s). The student's graduate or professional program will determine if program action is necessary. SCAI will be notified within seven (7) business days if the graduate or professional program recommends additional program action. SCAI will then communicate the final outcome to the student.

v. In the event the course Instructor is no longer at the University, the Department Chair (or designee) will determine the recommended Course Sanctions.

vi. University Sanctions

i. **Written Reprimand:** The University takes official notice that such actions are inappropriate and not in accordance with our community standards.

ii. **Educational Activities:** Appropriate educational steps (such as referrals for alcohol or drug education, reflection activities, counseling, letters of apology, directed study programs, or classes).

iii. **Conduct Probation:** Probation for a stated period, including completion of any required probation program. While on conduct probation, any additional violations of the Code or other University Policies may result in suspension or expulsion.

iv. **Deferred Suspension:** Period of time in which suspension is temporarily withheld or withheld pending completion of other sanctions by a specified deadline date. A Respondent who is on deferred suspension is considered not in good standing with the University, resulting in applicable restrictions on privileges and/or activities which may include, but are not limited to, being prohibited from participating in study abroad or alternative break, or serving as a peer advisor, resident assistant or elected/appointed Student leader in Student Government or other Student Organizations. Additional restrictions on University privileges and/or activities may be imposed on the Respondent based on their current or potential future activities. If the Respondent fails to fulfill the sanctions described in the decision letter (including failure to timely fulfill the sanction), the Respondent will no longer be considered on deferred suspension but will be automatically suspended with no further appeal. While on deferred suspension, any additional violations of the Code or other University Policies may result in suspension or expulsion.

v. **Suspension:** Separation from the University for a specified period of time. A Respondent is considered not in good standing with the University while suspended. The Respondent may not attend classes (either in person or online) and is banned from being on or in any University Premises or On-Campus Housing. The suspended Respondent is also banned from participation in any University-sponsored/related event or activity and their FIU OneCard will be deactivated. This sanction is recorded on the Respondent's academic transcript permanently. A Respondent who is suspended from the University is not eligible for tuition and/or registration fee reimbursement except as provided by University Policies. The Respondent will be administratively withdrawn from courses and will lose respective credit hours.

vi. **Expulsion:** Permanent separation from the University with no possibility of readmission. This sanction is recorded on the Respondent's academic transcript permanently. A Respondent is considered not in good standing with the University after being expelled. The Respondent may not attend classes (either in person or online) and is banned from being on or in

any University Premises or On-Campus Housing. The expelled Respondent is also banned from participation in any University-sponsored/related activity or event and their FIU OneCard will be deactivated. A Respondent who is expelled from the University is not eligible for tuition nor registration fee reimbursement except as provided by University Policy. The Respondent will be administratively withdrawn from courses and will lose respective credit hours.

vii. Remedies

i. No Contact Order: the requirement that the Respondent and/or friends have no contact with another person.

ii. Restitution:

Restitution to the University or to the impacted part(ies) of the violation. Any such payment on restitution will be limited to actual cost of repair, services not covered, or replacement costs.

iii. Restrictions/Loss of Privileges: Restrictions or loss of privileges which may be imposed upon a Respondent for a specified amount of time, including but not limited to, participation in Student activities, University or Student events, representation of the University on athletic teams or in leadership positions, presence at University residence halls or other buildings/areas of campus, participation as a peer advisor, resident assistant or elected/appointed Student leader in Student Government or other Student Organizations, and/or participation in study abroad or alternative break programs. For a student organization, restrictions or loss of privileges include, but are not limited to, participation in or exclusion from Student activities, social events, intramural activities, alcohol functions or in campus facilities. Additional restrictions on University privileges and/or activities may be imposed on the Respondent based on their current or potential future activities.

viii. Course Sanctions:

i. **Grade Penalty on the Assignment/Exam/Project with Resubmission:**

A point/grade reduction on the assignment/assessment in question, and with the permission of the Faculty member, an opportunity to resubmit the assignment/ assessment with the addition of the implemented point/grade reduction.

ii. **Grade Penalty on the Assignment/Exam/Project:** A point/grade reduction on the assignment/assessment in question.

iii. **Overall Course Grade Penalty with Drop:** Receive a decrease in overall grade or an F for the entire course. However, the Student will be permitted to drop or withdraw the course with approval from the SCAI Director or designee. Requests for drop consideration must be submitted in writing with rationale to the SCAI Director or designee, where the final approval rests and is not eligible for independent appeal outside of the formal conduct appeal process.

iv. **Overall Course Grade Penalty:** Receive a decrease in overall grade or an F for the course. A point/grade reduction for the entire course. There will be no ability to drop or withdraw from the course for any reason.

i. Violations of the Code that are motivated by prejudice toward a person or group because of such factors such as race, color, creed, religion, ethnicity, national origin, disability, age, marital status, genetic information, veteran status or any group/class protected by state or federal law may result in stronger sanctions.

i. Students who are found “Responsible” for Academic Misconduct violations under the Code are prohibited from using the Grade Forgiveness Policy for the course in which the Academic Misconduct occurred.

j. Sanctions take immediate effect unless appealed, except for suspensions or expulsions, which may be stayed until Final Agency action at the discretion of the SCAI Director. During such time, the SCAI Director may implement any supportive/interim measures available under the Code, excepting an interim suspension.

k. Proof of the completion of the sanction(s) must be provided as directed in the decision letter. It is the responsibility of the Respondent to ensure that such proof is provided by the specified date. Failure of the Respondent to provide proof by the specified date may result in a charge of failure to comply, placement of a Student Conduct hold on a Respondent's academic and University records, and suspension if the Respondent had been on deferred suspension.

~~18.16.~~ **WITHDRAWAL FROM A COURSE PENDING CHARGES OF ACADEMIC MISCONDUCT** Upon receipt of notification of allegations of Academic Misconduct, a Student can choose to withdraw from the course in question, in accordance with the University policies related to course withdrawal. Students who withdraw from a course will have their ability to register for future semesters temporarily placed on hold until the SCAI Director or designee is assured that the Student is satisfactorily responding to the charges. Students who are found "Responsible" of Academic Misconduct in a course from which they have withdrawn are still eligible to receive the appropriate sanctions (as listed in Section 15) based on the case and may be reinstated to the course from which they have withdrawn.

~~19.17.~~ **PROCESS OF PRESIDENTIAL REVIEW**

i. The President will notify the SCAI Director within three (3) Business Days of notification of a disciplinary outcome if he/she wishes to review the underlying disciplinary matter. This review will serve as the appeal process for the Respondent and Reporting Party (if applicable). Any other appeal process will immediately cease.

ii. No later than one (1) Business Day after the President notifies the SCAI Director and the Appellate Officer, the SCAI Director shall notify the Respondent and Reporting Party (if applicable) of the President's decision to review the underlying disciplinary matter including sanctions. The Respondent and Reporting Party (if applicable) may provide the President with any information (including any documents supporting an appeal if not previously submitted) within three (3) Business Days of the SCAI Director's notification.

iii. The President may only consider the information included in the Student Conduct file, any appeals submitted by the Respondent and Reporting Party (if applicable), and any information that was not reasonably available at the time of the hearing.

iv. The President shall issue a written decision to the Respondent Reporting Party (if applicable), Appellate Officer, and SCAI Director within fourteen (14) Business Days of notification of a disciplinary outcome. Decisions based on charges involving Hazing (Section (5)(p)) will include an explanation for the decision and sanctions. The President's decision constitutes Final Agency Action and will include notice of the Respondent's right to appeal to an external judicial forum if the sanction is suspension or expulsion.

~~20.18.~~ **APPEALS**

i. **Appellate Officer:** The Appellate Officer for all appeals is the Senior Vice President for Academic & Student Affairs or designee.

ii. **Appeal Form/Basis for Appeals:** The Respondent wishing to appeal must complete the appeal form in full, indicating the basis for the appeal, explain in detail the reasons

for the appeal and attach supporting relevant documentation. The burden of proof rests with the person appealing to clearly demonstrate the reason for appeal as set forth below. Appeals are not a rehearing of the Student Conduct matter but are only a file and/or document review. The reason for the appeal must be based on at least one of the following:

i. Violations of the appealing party's rights or other failure to follow the Student Conduct procedures that substantially affected the outcome of the initial hearing. Appeals based on this reason will be limited solely to a review of the record of the hearing;

ii. New information which was not available at the time of the hearing and could not have been presented. In addition, the appealing party must show that the new information could have substantially affected the outcome; or

iii. The severity of the sanction is disproportionate to the nature of the charge(s).

iii. **Appeal Requests:** All appeals must be written and submitted using the appeal form available in the decision letter.

The person wishing to appeal must complete the appeal form in full and send it to the Appellate Officer for receipt no later than 5:00pm of the seventh (7th) Business Day after the delivery date of the hearing decision letter. If the appeal form is submitted and/or signed by any individual other than the appealing party, it will not be accepted.

iv. **Untimely Appeal:** If a hearing decision is not appealed within the timeframe, the original decision becomes Final Agency Action.

v. **The Respondent's Status Pending Appeal:**

i. An appeal has no effect on a Respondent's status when the sanction was suspension or expulsion. The sanction(s) are effective immediately from the date of the decision, unless stayed until Final Agency action at the discretion of the SCAI Director. During such time, the SCAI Director may implement any supportive/interim measures available under the Code, excepting an interim suspension.

ii. If the Respondent appeals in any other case, once an appeal is requested, the sanction(s) will be stayed and will not take effect until the appeal process has been completed. Under these circumstances, a Respondent shall remain eligible to attend classes and University activities pending the appeal.

iii. If no appeal is requested, the sanctions will take effect immediately.

vi. **Appellate Review/Decision:**

i. No person may hear or decide an appeal if they conducted or participated in the Code proceeding being reviewed on appeal.

ii. The Appellate Officer shall first determine if sufficient grounds for the appeal exists and then, if so, may either deny the appeal, thus sustaining the initial decision and sanction(s), or do one of the following:

1. If the basis of the appeal is that the severity of the sanction was disproportionate to the nature of the offense and the Appellate Officer finds the appealing party proved their allegation, the Appellate Officer may modify the sanction.

2. If the basis of the appeal is that there was a failure to follow the Student Conduct procedures that substantially affected the outcome, or that there was new information which was not reasonably available at the time of the hearing and could not have been discovered through the exercise of due diligence, which would have substantially affected the outcome and the Appellate Officer finds that the appealing party proved their allegation, the Appellate Officer will order a new hearing.

vii. **Written Decision on Appeal:** The appellate decision is issued in writing to the Respondent within twenty-one (21) Business Days of receipt of the written request for appeal unless notification is given that additional time is necessary for consideration of the record on appeal.

viii. **Effect of the Final Appellate Decision:** The decision of the Appellate Officer constitutes Final Agency Action. In the case of a suspension or expulsion of a Respondent, the decision of the Appellate Officer will include notice to the Respondent's right to appeal to an external judicial forum.

ix. **Academic Grievance Process:** The Respondent may not use the Student Academic Grievance Policy as a way to appeal the filing of a complaint or the outcome of the Academic Misconduct process outlined in this regulation.

21.19. **RECORDS**

i. All student conduct-related records, including records involving Conduct violations, Academic Misconduct violation, and FIU Regulation 105, will be housed in the web-based system maintained by SCAI.

ii. The release of student conduct-related records will be governed by applicable federal and state laws regarding the privacy of education records.

iii. SCAI may place a student conduct hold on the records and registration of any Respondent who has a pending Code matter, including any outstanding sanctions. Respondents may not be allowed to graduate or receive grades, until pending matter(s), including any outstanding sanctions, are resolved. The University reserves the right withhold a transcript until properly notated.

iv. The official University email address on file with the Registrar's Office will be used for all student conduct correspondence sent. For Student Organizations, the official University email address on file with the Registrar's Office for the organization's respective President will be used. The Hearing Officer may, in their discretion, decide to send the notices via additional means (e.g., overnight delivery) and/or to other authorized University Officials.

v. Suspension(s) and Expulsion will be noted permanently on a Student's academic transcript. student conduct-related files are kept in compliance with General Records Schedule GS5, but not for less than seven (7) years from the date of the last incident(s) that the Respondent was involved in that resulted in Code charges. However, in the case of suspension or expulsion, the files shall be permanently retained.

vi. Students may have access to the information in their student conduct and Academic Misconduct file by submitting a written request to the SCAI Director. The access will be provided in accordance with federal and state laws regarding the privacy of education records (FERPA) and University regulation (see FIU Regulation 108).

22.20. **AUXILIARY AIDS AND SERVICES** Students with disabilities as defined by the Americans with Disabilities Act who require special accommodations for meetings/hearings should notify SCAI and the Disability Resource Center in writing at least three (3) Business Days prior to any meeting or hearing.

23.21. **CONFLICT RESOLUTION**

i. Not every matter processed through SCAI is required to go through summary resolution or a hearing. An overall goal of SCAI is to provide a learning process which entails

understanding and respecting the rights of others. An avenue utilized by SCAI to foster mutual respect and understanding when differences arise is Conflict Resolution. Conflict Resolution through SCAI is an informal and confidential process.

ii. Conflict Resolution may be utilized where the incident in question is minor in nature, the parties involved chose to participate, and the University cannot proceed with charges through the University student conduct system.

iii. Conflict Resolution cases handled through SCAI will not be identified or filed as a student conduct matter. Conflict Resolution records will be maintained separate from student conduct files and will not be recorded or reported as part of a Charged Student's record. All Conflict Resolution files are private and will not be released without written consent except in cases where the conduct or behavior is a repeat offense. In repeat cases, this information is only released to the Hearing Body and only used if the Respondent is found responsible for a violation of the Code.

iv. Conflict Resolution files are kept for seven (7) years from the date of the resolution.

v. Participation must be voluntary, and either party can request to end Conflict Resolution at any time which may result in the initiation of the student conduct process for the behavior.

24.22. **INTERPRETATION AND REVISION**

i. Any question of interpretation or application of the Code shall be referred to the Senior Vice President for Academic and Student Affairs or designee for final determination.

ii. The Code shall be reviewed periodically by a committee which shall include Student representation under the direction of the SCAI Director.

iii. The Academic Misconduct procedures outlined in this regulation will be reviewed at least every three (3) years by a committee which shall include Student and faculty representation under the direction of the SCAI Director. The committee will be appointed by the Chair of the Faculty Senate, in consultation with the SCAI Director and the Faculty Fellow for Academic Integrity. Any changes to Academic Misconduct procedures must be approved by the Faculty Senate.

Contact: Director, Office of Student Conduct and Academic Integrity
Location: GC 311
Phone: (305) 348-3939 / Fax: (305) 348-6477
Email: conduct@fiu.edu
Web Page: conduct.fiu.edu

Authority: Florida Board of Governors Regulation 6.0105 Student Conduct and Discipline; Florida Board of Governors Regulation 6.010 Student Affairs Administration; Florida Board of Governors Regulation 1.001(4)(a)(10); and Section 7(d), Article IX, Florida Constitution.
History—New June 19, 2012, Amended 9-17-12, 4-8-14, 6-8-18, 6-25-19 Amended 8-13-20, Amended 10-30-20. [Amended X-X-21](#).

THE FLORIDA INTERNATIONAL UNIVERSITY
BOARD OF TRUSTEES
Academic Policy and Student Affairs
September 14, 2021

Subject: Florida Educational Equity Act Report, 2021 reporting year

Proposed Committee Action:

Recommend that the Florida International University Board of Trustees approve the Florida Educational Equity Act Report for the 2021 reporting year.

Background Information:

In accordance with Florida Board of Governors Regulation 2.003(5)(a)(b)(c), Equity and Access, Florida International University has prepared an annual Florida Equity Report for 2019-20 in accordance with Regulation 2.003 and the reporting guidelines established by the Board of Governors office. At a minimum, the university's equity report must include information on the institution's progress in implementing strategic initiatives and performance related to equity and access as they pertain to academic services, programs, and student enrollment; equity in athletics; and employment. Each university's equity report shall assess sex equity in athletics, as well as representation by race and sex in student enrollment, senior-level administrative positions and by faculty rank and/or tenure. The Florida International University Board of Trustees must approve the annual University's Equity Report prior to submission to the Florida Board of Governors.

Supporting Documentation: Florida Educational Equity Act Report, 2021 reporting year

Facilitator/Presenter: Emmanuele A. Bowles

This page intentionally left blank

Florida Equity Report:

Enrollment, Sex Equity in Athletics, and Employment

Report Year: 2021

Data Year: July 2019 – June 2020



This page intentionally left blank



Approved by:

Dean C. Colson
Chair, University Board of Trustees

Date

Dr. Mark B. Rosenberg
University President

Date

Submitted by:

Emmanuele A. Bowles, Ed.D., Director, Diversity, Equity, and Inclusion
Division of Diversity, Equity, and Inclusion
Florida International University
Primera Casa 220
11200 SW 8th Street, Miami, FL 33199
Phone: (305) 348-6088
Email: archange@fiu.edu

This page intentionally left blank

**2021 FLORIDA EQUITY REPORT
AY 2019-2020**

Table of Contents

PART I	EXECUTIVE SUMMARY.....	5
PART II	REVIEW OF POLICIES AND PROCEDURES.....	9
PART III	GOALS, MEASUREMENT, AND DATA TABLES.....	11
	A. Academic Program Reviews	11
	Table 1. First Time in College (FTIC) Enrollment	11
	Table 2. Florida Community College System A.A. Transfers	19
	Table 3. Retention of Full-Time FTICs After One Year	21
	Table 4. Graduation Rate of Full-Time FTICs by Race/Ethnicity	23
	Table 5. Bachelor’s Degrees Awarded by Race.....	24
	Table 6. Master’s Degrees Awarded by Race	25
	Table 7. Doctoral Degrees Awarded by Race	26
	Table 8. First Professional Degrees Awarded by Race	27
	B. Student Services	31
	Section 1. Academic Advising	31
	Section 2. Admission to Academic Programs	36
	Section 3. Counseling and Student Health Services	45
	Section 4. Club and Intramural Athletics (sex equity only)	49
	Section 5. Student Financial Assistance	51
	Section 6. Housing	52
	Section 7. Student Employment	56
	Section 8. Educational and Work Environment	59
	Section 9. Personnel	61
PART IV	GENDER EQUITY IN INTERCOLLEGIATE ATHLETICS	62
	Table 1. Sex Equity in Athletics Update	62
	Table 2. Sex Equity in Athletics- Areas for Improvement	65
	Table 3. Student Athletes by Gender 2019-2020	65
PART V	EMPLOYMENT REPRESENTATION	66

A. Measure Achievement of Remedying Underutilization of Women and Minorities	67
B. Report Race and Sex Representation	69
Table 1. Category Representation – Tenured Faculty	69
Table 2. Category Representation – Tenure-Track Faculty	69
Table 3. Category Representation – Non-Tenure-Earning Faculty.....	72
Table 4. Category Representation – Executive/ Admin/ Managerial	72
C. Areas of Improvement and Achievement	75
D. Protected Class Representation in the Tenure Process	85
Table 5. Protected-Class Representation in the Tenure Process	85
E. Promotion and Tenure Committee Composition	87
Table 6. Promotion and Tenure Committee Composition	87
PART VI: OTHER REQUIREMENTS	91
A. Budgetary Incentive Plan	91
B. President’s Evaluation	92
C. Executive Level Administrators’ Evaluations	92
FIU Equity Report Contributors	93

PART I. EXECUTIVE SUMMARY

The annual Florida Equity Report is required under the Florida Educational Equity Act (FEEA) (Section 1000.05, F.S.) and Florida Board of Governors (BOG) Regulation 2.003 Equity and Access. The reports from each public university in Florida encompass academic program analyses, review of student services, review of gender equity in athletics, and analyses of employment in key areas.

The 2021 FEEA Report encompasses five areas: Policies and Procedures, Academic Program Reviews, Intercollegiate Athletics, Employment Representation, and Other Requirements. The essence of these reports serves as a reaffirmation of the commitment of Florida International University (FIU) toward enhancing the representation of women and minorities in FIU's undergraduate, graduate, and professional, and athletics programs as well as faculty and administrative positions.

FIU has two campuses: the Modesto A. Maidique Campus (MMC) in west Miami-Dade County and the Biscayne Bay Campus (BBC) in North Miami.

Highlights and Achievements

FIU was named one of the best colleges in the nation to work for in 2019, according to a survey by The Great Colleges to Work For® program. The university also achieved honor roll designation, with recognition in 12 out of 12 categories. Honor status is given when the university receives recognition across all the categories. FIU has received honor roll designation every year since 2016. FIU has now been recognized four times consecutively with honor roll designation.

In September 2019, in the Washington Monthly Magazine College Rankings, FIU ranked No. 43 in the Public National Universities category (number 72 overall) out of 395 universities – up from No. 54 in 2018. FIU also ranked No. 5 among public universities (number 14 overall) in the Best Bang for the Buck in the Southeast U.S. rankings for colleges that help low-income students attain marketable degrees at affordable prices. The two rankings consider factors such as graduation rates, the number of Pell Grant recipients and first-generation students, median earnings 10 years after entering college, the net price of attendance for families making less than \$75,000 per year, and repayment rates.

In July 2020, FIU was ranked No. 3 among U.S. public universities that are 50 years old or younger by Times Higher Education (THE). THE uses thirteen (13) carefully calibrated performance indicators to provide the most comprehensive and balanced comparisons, trusted by students, academics, university leaders, industry, and governments. The “Golden Age” rankings use the same weightings as the World University Rankings. The performance indicators are grouped into five areas: Teaching (the learning environment); Research (volume, income, and reputation); Citations (research influence); International outlook (staff, students, and research); and Industry income (knowledge transfer).

Description of Plan Development

The guidelines for this report were provided by the BOG, which oversees the State University System (SUS) of Florida. The completion of this plan was a collaborative institutional effort comprised of representatives from the Office of the Provost, Academic & Student Affairs, Academic Budget Office, Athletics, University Graduate School, Human Resources, Analysis and Information Management, Enrollment Management and Services led by FIU's Division of Diversity, Equity, and Inclusion (DEI). The FEEA report is prepared by FIU's Director of DEI is reviewed by the Diversity Council Policy committee. This committee's responsibility is to reviews institutional policies and makes recommendations to the Vice Provost of DEI about diversity, equity, and inclusion-related policy issues. This committee also provides feedback on the equity report submission based on the Florida Equity report guidelines. The Office of the General Counsel as well as the Sr. Vice President of Human Resources and Vice Provost of Diversity, Equity, and Inclusion both review the report before it is submitted for approval by the University President and the FIU Board of Trustees (BOT). In addition, the report is presented to the BOT's Academic Policy and Student Affairs before it is approved by the full board.

FIU complies with federal and state non-discrimination and FEEA statutes. The sources used for data are the Integrated Postsecondary Education Data System (IPEDS), the 2019 Affirmative Action plan, and other institutional surveys and assessments. FIU is committed to the policy that all persons shall have equal access to programs, facilities, admissions, academic programs, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by university policy or by state or federal laws and regulations.

Summary of Institutional Progress

Academic Programs

FIU has experienced an increase in the number of Bachelor's, Master's, and professional degrees awarded during the 2019-2020 Academic Year. There was a decrease in the number of Doctoral degrees awarded. There has also been a significant decrease in enrollment of First-Time-In-College (FTIC) students at FIU. In 2018, FIU began admitting students through a variety of pathways to pursue improvements in the level of selectivity without compromising access objectives. While the negative impact on our Pell rates and diversity has been minimized, some diversity and access goals have not been achieved to the extent intended and may have contributed to the decrease in FTIC. FIU will be augmenting these pathways with additional access pathways in the upcoming year. It is also our assumption that the pandemic had an impact on the decrease of doctoral degrees awarded as well as the enrollment of FTICs. FIU further affirms its commitment to community outreach and diversity recruitment initiatives to impact diversity outcomes in undergraduate student enrollment, retention, and graduation rates.

Gender Equity in Athletics

FIU has a designated Deputy Title IX Coordinator in the Athletics Department who, in collaboration with the University's Title IX Coordinator, arranges for diversity training for all

student-athletes and ensures compliance with Title IX and the NCAA Standards. Such efforts have been taken to ensure equitable facilities, equipment, personnel, and opportunities for female and male athletes. There is also a Title IX and diversity, equity, and inclusion committee that assists in ensuring an equitable and diverse athletics program. FIU further focuses on training the athletic coaching and support staff on the importance of inclusion, diversity, equity, and access to ensure that they are well-suited to meet the needs of our diverse student-athlete population.

Employment Representation

FIU is committed to ensuring that the faculty and staff at our institution reflect the diversity of our local community and our student body. The Division of Human Resources continues to lead efforts to strengthen employment, recruitment, classification, and compensation by leveraging technology to meet current university/legal/compliance demands, expectations, and changes in law for administrative, staff, and student employees. Further, the Division of Academic Affairs and the Office to Advance Women, Equity, and Diversity (AWED) are actively engaged in the recruitment, retention, and development of university faculty throughout each college/school. In Fall 2020, there was only an increase in the number of Black tenured faculty members compared to Fall 2019. Additionally, there was also an increase in the percentage of There was a notable increase to Black and Female categories of the non-tenure-earning faculty or faculty at non-tenure. In Fall 2020, there was an increase in Non-resident Alien, Asian, Hispanic, and Female categories.

Protected-Class Representation in the Tenure Process

FIU's faculty tenure process strives to allow faculty members who are underrepresented minorities to participate and be considered throughout the process in each college during the academic year of 2019-2020. FIU is proud to encourage diversity in the faculty tenure process through targeted diversity recruitment initiatives through AWED. FIU strives to ensure the tenure process demonstrates fairness and equity to all participants, including females and underrepresented minorities. FIU acknowledges that greater diversity is needed throughout the tenure and promotion process; efforts to obtain diverse representation on committees are continually sought and improvement is expected to continue.

Areas for Improvement

The Non-resident alien category of students experienced decreases in the areas FTIC, retention of FTICs, Bachelor's, Master's, and Doctoral degrees awarded. Another area for improvement is in the overall number of FTIC student enrollment. The number of doctoral degrees awarded to Black students increased by 2% from the previous year, but that category remains underrepresented. There was also a decrease in the number of doctoral degrees awarded to female students. For gender equity in intercollegiate athletics, participation rates, male, and female, compared with full-time undergraduate enrollment and the availability of facilities, defined as locker room, practice, and competitive facilities, have been identified as areas for improvement.

For employment representation, the Fall 2020 number of tenured female faculty remains the same as the previous Fall and increased by 6% for the non-tenure-earning or faculty in the non-tenure category. The Fall 2020 number of tenured female faculty remains the same as the previous Fall and increased by 6% for the non-tenure-earning faculty in the non-tenure category. The university has an Affirmative Action plan with numerical placement goals that have been established pursuant to 41 C.F.R. § 60-2.16 and § 741.45 and we are making good faith efforts to meet the obligations contained in the plan. There are placement goals three (3) placement goals for faculty in the female category for faculty leadership and female and minority categories of tenured faculty. There are three (3) placement goals for the administrative goals in the athletic-support services, computer-telecommunication technicians, and service workers job groups.

Budget Plan

In the academic year of July 2019 to June 2020, the Division of Diversity, Equity, and Inclusion was not established. However, in July 2020, this new division was created with a \$1.4 million E&G budget allocation to ensure the institutional diversity, equity, and inclusion goals are intentionally set campus-wide and met. The university assesses its efforts on an ongoing basis to continue to improve the recruitment, search, and hiring process to enhance the potential for increasing the diversity of the faculty. Individual department budget plans include specific strategies and a budget allocation that support diversity and inclusion among faculty, staff, and students.

PART II. POLICIES AND PROCEDURES IN SUPPORT OF EQUITY

Review of Policies and Procedures

FIU has a deep commitment to diversity, equity, and inclusion. Diversity is an integral part of our identity. The university is committed to the pursuit of excellence by being inclusive to individuals without regard to race, color, national origin, sex, religion, age, disability, gender, pregnancy, gender identity, gender expression, sexual orientation, predisposing genetic characteristics, marital status, familial status, or veteran status.

It is a violation of the FIU-105, 106, and 2501 regulations (listed below) for any member of the university community to discriminate against or harass any member of the university community or applicant. Discrimination and harassment are forms of conduct that shall result in disciplinary or other action as provided by the Regulations of the university. In August 2020, FIU updated regulation FIU-105 in accordance with new updates from the United States Department of Education pertaining to Title IX. The regulations are:

- [FIU-105 Sexual Misconduct \(Title IX\)](#)
- [FIU-106 Nondiscrimination, Harassment, and Retaliation \(Title VII\)](#)
- [FIU-2501 Student Conduct and Honor Code](#)

The university's collective bargaining agreement with the United Faculty of Florida (UFF) explicitly articulates the university's commitment to an environment free from discrimination through its Non-Discrimination Article.

Examples of established university policies, procedures, practices, and/or programs that relate to equity are updated regularly as evidenced by the university's:

- [Equal Opportunity and Non-Discrimination Statement](#);
- [1705.010 Recruitment & Selection Policy](#);
- Annual Affirmative Action Plan;
- [Student Handbook & Orientation](#);
- [Search and Screen Committee training \(faculty & staff\)](#);
- New Employee and Faculty Orientations (faculty & staff);
- Undergraduate and Graduate New Student Orientations;
- [Administrative Search and Screen Handbook](#);
- [Faculty Handbook](#);
- [Tenure and Promotion Manual](#);
- [Title IX Statement](#);
- Equal Employment Opportunity (EEO) training.

University President's EEO Policy Statement

Florida International University EQUAL OPPORTUNITY POLICY STATEMENT

Florida International University is firmly committed to Equal Employment Opportunity (EEO) and to compliance with all federal, state, and local laws that prohibit employment discrimination on the basis of age, race, color, gender, national origin, religion, disability, protected veteran status, pregnancy discrimination, and other protected classifications. This policy applies to all employment decisions including, but not limited to, recruiting, hiring, training, promotions, pay practices, benefits, disciplinary actions, and terminations.

As a government contractor, Florida International University is also committed to taking affirmative action to hire and advance minorities and women as well as qualified individuals with disabilities and covered veterans.

We invite employees who are disabled or protected veterans and who wish to be included under our Affirmative Action Program to self-identify as such with the EEO Coordinator. This self-identification is strictly voluntary and confidential and will not result in retaliation of any sort.

Employees of and applicants to Florida International University will not be subject to harassment, intimidation, threats, coercion, or discrimination because they have engaged or may engage in filing a complaint, assisting in a review, investigation, or hearing or have otherwise sought to obtain their legal rights related to any federal, state, or local law regarding EEO for qualified individuals with disabilities or qualified protected veterans.

As President of Florida International University, I am committed to the principles of affirmative action and equal employment opportunity. In order to ensure dissemination and implementation of equal employment opportunity and affirmative action throughout all levels of the University, I selected Emmanuele Bowles as the EEO Coordinator for Florida International University. One of the EEO Coordinator's duties is to establish and maintain an internal audit and reporting system to allow for effective measurement of the University's programs.

In furtherance of Florida International University's policy regarding affirmative action and equal employment opportunity, Florida International University has developed a written Affirmative Action Program which sets forth the policies, practices, and procedures which the University is committed to applying in order to ensure that its policy of non-discrimination and affirmative action for qualified individuals with disabilities and qualified protected veterans is accomplished. This Affirmative Action Program for qualified individuals with disabilities and qualified protected veterans is available for inspection by any employee or applicant for employment upon request, during normal business hours in the Division of Diversity, Equity, and Inclusion office in Primera Casa (PC) 220. Any questions should be directed to me, your supervisor, or Emmanuele Bowles, EEO Coordinator.

Mark B. Rosenberg
President

PART III. GOALS, MEASUREMENT, AND DATA TABLES

A. Academic Program Reviews

Table 1. First-Time-In-College Enrollment (Full-time)

	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO*	UNK	TOTAL
Men	33	74	0	34	842	0	96	14	5	1098
Women	37	141	0	46	1240	0	141	27	4	1636
Total Fall 2020	70	215	0	80	2082	0	237	41	9	2734
Category % of Total Fall 2020	3%	8%	0%	3%	76%	0%	9%	1%	0%	100%
Total FTIC Fall 2015	189	413	3	84	2632	2	307	119	18	3767
Category % of Total Fall 2015	5%	11%	0%	2%	70%	0%	8%	3%	0%	100%
Change % from Fall 2015 to Fall 2020	-2%	-3%	0%	1%	6%	0%	1%	-2%	0%	0%

Source: IPEDS Part A, Fall enrollment by race, ethnicity, and gender. Full-time, First-time students.

The FIU FTIC enrollment data reflects that approximately 60% of students were female and 40% were male for the 2019-2020 academic year. Although the total number of FTIC students enrolled at FIU has decreased from 3,306 in Fall 2019 to 2,734 in Fall 2020, 87% of full-time FTICs enrolled at FIU were underrepresented minorities in Fall 2020. This percentage is slightly decreased over the previous Fall 2019 metric, where 88% of full-time FTICs enrolled at FIU were underrepresented minorities. Students from Hispanic backgrounds made up the greatest percentage increase in this metric.

In the academic year, of 2019-2020, FIU has over 58,000 students and a first-year student acceptance rate of 50%, which makes our admission process a selective one. The admissions committee selects undergraduate applicants who are academically prepared, based on high school GPA, grades in academic core courses, course selection, college readiness in math, writing and reading, and standardized test scores, have challenged themselves with advanced courses, are active in their community, or are motivated by a specific goal or passion. FIU strives to prepare applicants for a college education by opening doors to more future undergraduate students, every year.

In accordance with BOG Regulation 6.002(2)(c) FIU's Office of Admissions works closely with the Florida Board of Governors and Department of Education to review applicants through Florida's Talented Twenty Program. All other FTIC pathways for admission take into

consideration a combination of high school academic GPA, courses completed in high school as they are related to the readiness of college-level coursework; acceleration through Advanced Placement, Dual Enrollment or other advanced curricula; standardized testing as is required by Florida statute; family educational background, socio-economic status, graduation from a low-performing high school, military service or special talents as outlined in BOG Regulation 6.002(2)(b).

Florida's Talented Twenty Program supports the efforts to encourage students to strive for better grades in high school and provides access to at least one of the members of the state university system. Students eligible for the Talented Twenty Program have demonstrated academic success in their respective K-12 public schools and are guaranteed admission, within space and fiscal limitations, to one of the twelve state universities.

Areas for Improvement

In 2018, FIU began admitting students through a variety of pathways to pursue improvements in the level of selectivity without compromising access objectives. While the university has minimized the negative impact on Pell rates and diversity, the diversity or access FTIC goals have not been achieved to the extent intended. FIU will be augmenting these pathways with additional access pathways in the upcoming year.

FIU will develop a top 10% pathway through which FTIC students who graduate in the top 10% of their classes will be admitted. If students meet the minimum requirements as described in BOG Regulation 6.002, they will be admitted without applying the competitive admissions criteria to their standardized test scores. To maximize the impact of this pathway, Title I schools will be distributed among all recruiters; this will increase the resources committed to these schools. An additional recruiter in Admissions who will be accountable for initiatives associated with underrepresented and first-generation students will be added.

Enrollment Management & Services will collaborate with MDCPS to develop more opportunities for faculty engagement. This effort will focus on specific programs such as Journalism, Nursing, and Hospitality. These programs have a low representation of FTIC students. FIU believes that students will see the value of these majors and pursue them at the university. The desire to improve in this area highlights the need for early outreach and awareness programs.

Based on the success during COVID 19, virtual initiatives associated with direct recruiting and financial aid will be adopted or refined. Enhanced FAFSA workshops will be scheduled for underrepresented and first-generation students. The following events for high schools are being hosted. The tracking of the impact of these programs to help improve FTICs will be established.

AVID Recruitment

AVID, Advancement Via Individual Determination, is a 501(c)(3) nonprofit organization established in 1980. AVID is a fourth through the twelfth-grade system to prepare students in the academic middle for four-year college eligibility providing academic and social support to

ensure students' success in high school, college, and careers. FIU participated in the Miami Heat & AVID recruitment event in 2019 as well as provided support through college fairs, college nights, panels, and high school visits to over 120 AVID high schools in Florida.

College Board Access and Diversity Collaborative

FIU is a sponsor of the College Board Access and Diversity Collaborative (ADC). This program exists to provide information and tools to higher education institutions as they develop and implement policies and practices in support of educational access and diversity. FIU helps by shaping the priorities and provides advising and direction regarding activities; provides input to the policy and resources that guide the enrollment management community; and has the opportunity to work closely with the Education Counsel policy and law experts when dealing with diversity-related enrollment and admissions challenges, practices and goals.

College Board Landscape Tool

FIU is a member of the College Board's Landscape tool pilot program. Landscape provides FIU with neighborhood and high school information to use in conjunction with other applicant information in context. It does not replace individual applicant information but allows the university to consider more context about where the student comes from and opportunities, they have had during their high school career, relative to national and state data and comparisons.

FIU Golden Scholars

Through the Golden Scholars bridge program, FIU provides underrepresented students with an alternative admission pathway. In support of this effort, recruiters disseminate program information to targeted schools and students. FIU Admissions Coordinators undergo training concerning the Golden Scholars Program, and two coordinators participate on the student selections committee. As students are admitted to the program, first-generation students who graduate from high schools located in the City of Miami will be prioritized.

Program students participate in an intensive six-week residential summer bridge program. This program includes academic preparation, individualized advising, and personal attention from faculty and staff. Upon successful completion of the bridge program, students will matriculate into the fall term as fully admitted FIU students.

The process for selecting Golden Scholars will be improved with the long-term goal of increasing the size of the program from 40 to 200 participants. To increase process efficiency and capacity, resources will be provided to the Student Access & Success department. Students will be provided with earlier admissions decisions and resources as they decide to become FIU students.

Hispanic Scholars Fund

FIU is a partner with the Hispanic Scholarship Fund. This organization empowers students and parents with the knowledge and resources to successfully complete higher education. FIU attends college fairs and scholar conferences such as the National Leadership Conference and

STEM Summit; participates in College 101; hosts College Camp at FIU; and participates in the Youth Leadership Summit.

Strive/I'm First

FIU is a partner with Strive for College and I'm First! Strive connects students with financial needs with free, one-to-one mentoring to help them navigate the college and financial aid application process. Students already in college can be matched with a mentor for support to help them graduate and prepare for career opportunities. The Strive program is completely virtual, with mentors and students connecting through their online platform. FIU incorporates the I'm First resources into First Generation Student Day and is represented in the Partner book of colleges as well as on the website.

Title I School Recruitment

Title I Schools provide local educational agencies with the resources to help young people gain a quality education with the skills to master the standards required in the state in which they operate. Title I provide students in economically disadvantaged districts and neighborhoods with the technology, supplies, educational support, and activities to improve student achievement. Title I school districts have a disproportionately large population of students who receive free or reduced-priced lunches. According to the U.S. Department of Education, more than 26-million students are served by the Title I program, and 19% of these students are enrolled in grades 9-12.

Targeted emails about additional scholarship programs such as The Dream.US, Hispanic Scholars Fund, and other community and university initiatives are sent specifically to students who attend a school receiving Title I funds. In addition, FIU hosts application workshops and FAFSA nights at Title I schools in Florida counties.

Off-Campus Initiatives

Application workshops, high school visits, college fairs, and financial aid presentations are ways to engage the local community in the college search and selection process. These are free and open to the general public of a specific area. Hosted by a high school, district, or community-based organization, FIU participates in nearly 500 events each year. The list below outlines a sample of those done at Title I high schools across the State of Florida.

Off-Campus FTIC recruitment initiatives

Name of School	County	Outreach Activity
Douglas Anderson School of Arts	Duval	HS Visit
Robert E. Lee HS	Duval	HS Visit
Samuel W. Wolfson HS	Duval	HS Visit
Jean Ribault HS	Duval	College Fair

Andrew Jackson HS	Duval	College Fair
Booker T. Washington	Miami-Dade	College Fair and Visit
Hialeah-Miami Lakes HS	Miami-Dade	College Fair and Visit
Miami Central HS	Miami-Dade	College Fair and Visit
Miami Edison HS	Miami-Dade	College Fair and Visit
Miami Jackson HS	Miami-Dade	College Fair and Visit
Miami Norland HS	Miami-Dade	College Fair and Visit
Miami Northwestern HS	Miami-Dade	College Fair and Visit
Miami Senior HS	Miami-Dade	College Fair and Visit
North Miami HS	Miami-Dade	College Fair
North Miami Beach HS	Miami-Dade	College Fair
William H. Turner Tech	Miami-Dade	College Fair
Glades Central	Okeechobee	HS Visit
Pahokee HS	Okeechobee	HS Visit
University HS	Orange	HS Visit
Gateway HS	Osceola	Application Workshop
Poinciana HS	Osceola	HS Visit
Winter Springs HS	Seminole	HS Visit

During the upcoming year, Title I schools will be distributed more evenly among the professional recruitment staff. The team will ensure that all listed schools have specific contact records in the CRM (SalesForce) system and will enhance the communication plan for students enrolled in the Title I schools. Through this communication effort, early awareness of financial aid opportunities and FAFSA processes will be developed. As these efforts will focus on ninth graders, this engagement strategy will be augmented for faculty members who will provide students with opportunities to explore career opportunities.

Community-Based Organization Outreach

Back 2 Life 'Get Life Ready'

FIU participated in the Back 2 Life 'Get Life Ready' sponsored by Broward County Schools. This event sought to increase student exposure to the higher education opportunities available in Broward and Miami-Dade counties. By integrating educational workshops during community

gatherings, the ‘Get Life Ready’ event served to showcase how community and family obligations can be managed along with higher education pursuits. Financial Aid/College Admissions/Vocational Schools were represented to include the various professional development opportunities open to the public.

Black Brown College Bound Summit – Hillsborough Community College

In 2006, Hillsborough Community College held the first annual Black, Brown & College Bound Summit in Tampa, Florida to address the national problem of a lack of student success in the areas of persistence, retention, and graduation for all students, specifically African American and Latino males. FIU participates in the summit and college fair.

Breakthrough Miami

Breakthrough Miami uses a unique “students-teaching-students” model to create a rigorous, vibrant learning community. In this community, highly motivated, traditionally underrepresented minority 5th-12th grade students pursue activities that prepare them for post-secondary success and become emerging leaders. These students will become the next generation of educators and advocates.

Breakthrough Miami currently serves 1,300 middle and high school students at six community campus locations (Carrollton School of the Sacred Heart, Gulliver Schools, Miami Country Day School, Palmer Trinity, Ransom Everglades, and the University of Miami). Acceptance into the program is based on a competitive application and interview process. This process helps to identify students who are academically motivated and meet at least two of the following five risk factors associated with failure to enter/complete college:

- Ethnic/racial minorities
- Family income qualifies for free/reduced lunch
- First-generation in their families to attend college in the U.S.
- Single-parent household
- Primary language other than English

FIU has been partnering with Breakthrough Miami since 2019 and actively participates in the College Bootcamp, College Tour, Sessions with College Admissions Officers, and Financial Aid sessions. In addition, the Miami Beach Urban Studios sponsors the Breakthrough Miami Growlight program; an art and design summer camp program for low-income high school students who are interested in learning how to navigate the world of art, design, and entrepreneurship.

I Have a Dream (IHAD) Foundation

The Miami Chapter I Have a Dream” Foundation is the only not-for-profit in America that works with lower-income children from Kindergarten with unbroken, year-round support through College. To gain acceptance into this program:

- Family income qualifies for free/reduced lunch
- Low performing school in an economically disadvantaged area

- First-generation in their families to attend college in the U.S.
- Ethnic/racial minorities

FIU Office of Admissions staff co-hosted college planning workshops to help prepare high school juniors and seniors for the rigors of the college application and admissions process. They gave presentations on how to complete college applications, selecting majors and careers, the benefits of 2+2 programs, and how to write a college essay.

Infinite Scholars

The Infinite Scholars program is a non-profit organization founded by Thomas Ousley, a former teacher in Missouri. He founded the program to ensure that financially disadvantaged students could receive the funding they needed to go to college and succeed. More than 80% of participants of this program go on to college.

FIU is one of the 450 partner institutions that support the Infinite Scholars program. Only five other members of the SUS are partner institutions as well as three of the members of the Florida State College System.

Miami Youth Co-Op

Youth Co-Op's immigration program provides a wide array of immigration services to Miami-Dade County. The program's staff is comprised of BIA accredited representatives and legal assistants, all of whom are supervised by the program's immigration attorney. This program hosts a college fair and college planning workshop to help clients connect to opportunities. FIU attended the program to help with providing information sessions in Spanish.

TRIO Programs

The Federal TRIO Programs (TRIO) are Federal outreach and student services programs designed to identify and provide services for individuals from disadvantaged backgrounds. TRIO includes eight programs targeted to serve and assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to postbaccalaureate programs. TRIO also includes a training program for directors and staff of TRIO projects.

FIU participates in many of the TRIO program initiatives including application workshops, FAFSA programs, and hosting the students on campus for "Panther for a Day" type events. In this time frame, the FIU Office of Admissions went to PBSC Lake Worth to participate in three days of college planning events.

Upward Bound

The Upward Bound program provides fundamental support to participants in their preparation for college from taking standardized tests to completing applications. Students in the program are from low-income families who are the first in their families to go to college. Upward Bound participation not only increases the likelihood of participants going to college but also enhances their college completion rates by providing additional support and success strategies such as mentorships, counseling, and enrichment activities. FIU Office of Admissions provides campus

tours, information sessions, and college planning workshops on both the BBC and MMC locations for Upward Bound at FIU; and hosts groups from around the country who participate in other U.S.-based Upward Bound programs.

The Office of University Admissions will collaborate with the Office of Scholarships to offer students micro-scholarships for their participation in specific Community-Based Organizations such as 5000 Role Models, Upward Bound, IHAD, and Breakthrough Miami. A new RaiseMe “plus” category will be incorporated to ensure students in these programs understand that finances should not be a barrier to education.

School Counselor Initiatives

Bill & Melinda Gates Foundation – Screening of Personal Statement

Miami-Dade County Public Schools Division (MDCPS) of Student Services hosted a free screening of the movie Personal Statement; and a panel discussion with the three students from the documentary on January 22, 2020.

This film, a documentary funded by the Bill & Melinda Gates Foundation, follows three high school students turned peer college counselors as they navigate themselves and their classmates through the challenges of college access and equity. The event was sponsored by the Miami-Dade County Public Schools Division of Student Services and the Bill & Melinda Gates Foundation and allowed prospective students, counselors, and the community to learn firsthand about the challenges low-income, first-generation students face in college access. FIU Admissions facilitated the usage of the Student Academic Success Auditorium for the screening.

Table 2. Florida Community College A.A. Transfers (Full-time)

	NRA	B	AI/AN	A	H	NH/OPI*	W	≥ TWO*	UNK	FEMALE	MALE	TOTAL
Total Fall 2020	392	1016	1	155	5494	3	536	126	19	4786	2956	7742
Category % of Total Fall 2020	5%	13%	0%	2%	71%	0%	7%	2%	0%	62%	38%	100%
Total Fall 2015	313	827	5	158	4683	5	511	131	53	3866	2820	6686
Category % of Total Fall 2015	5%	12%	0%	2%	70%	0%	8%	2%	1%	58%	42%	100%
Category % Change from 2015 to 2020	0%	1%	0%	0%	1%	0%	-1%	0%	-1%	4%	-4%	0%

Source: Student Instruction File. Full-time students.

For Fall 2020, there were a total of 7,742 Florida Community College A.A. transfers. This marks an approximate 1% increase from last year's 7,646 enrollment number and a 13.64% increase from the Fall 2015 enrollment number of 6,686. The percentage changes in the racial groups mirrored the previous year with a 1% increase to the Hispanic racial group. Additionally, the total number of female and male transfer students increased for Fall 2020, although there was a slight change of 1% in the percentage of female transfer students and male transfer students. Over the past five years, FIU has experienced a 19.22% increase in the total number of female transfer students and a 1.6% increase in the total number of male transfer students.

Transfers who are starting their third year of college (or are near earning 60 credits) have a chosen degree. If they are entering FIU with an associate degree, they must apply to their college or program of choice in addition to university application. Some degree programs, such as architecture and nursing, have higher minimum admissions requirements than others and may require additional information or exams along with the application. The following programs assist in the increase of transfer students at FIU.

Connect4Success

The Connect4Success (C4S) program is two-fold; there is the part where FIU Office of Admissions conducts workshops in the high schools to educate students of the benefits of a 2+2 program, and the second part where Admissions and Transfer and Transition Services assists students at the State Colleges with transitioning back to the university as they are earning their AA or approved AS degree.

High School to C4S Recruitment

Programs at Hialeah-Miami Lakes, Hialeah Gardens, Mater Academy Charter, and Miami Lakes Educational Center were held to work with students to understand the benefits of the Connect4Success program and to complete the application. These schools have students with a

heavy interest in the STEM fields who are not ready for college-level calculus so special attention is paid to how best to advise these students on their journey toward a major with a heavy emphasis on math and science.

C4S Kickoff Events

The C4S Kickoff welcomes new students and their families to the program, including its comprehensive financial, social, and academic benefits in tandem with Miami-Dade College, Broward College, and Palm Beach State College. Historically, students have been offered this half-day event beginning in the morning. Although attendance has been strong for students, many parents and other family members could not attend or departed the event early due to employment or familial responsibilities. Recognizing the important role that families play in the lives of their students, FIU expanded the program in 2019 to include an evening option. The adjustment was very well received. In Summer 2020, FIU shifted to virtual programming due to the COVID pandemic. The Office of Admissions worked diligently with partner colleges to ensure that FIU could offer the most comparable experience possible, while also recording the event for those students and families who could not attend the event live.

University Admissions will offer virtual Kickoffs this summer (per ongoing pandemic guidelines, including at partner colleges); an in-person evening option will follow these events.

Pre-Transfer Advising

On March 16, 2020, FIU moved to fully remote work. Bridge Advisors, already well versed in virtual resources per their roles outside FIU, added Zoom to their toolkit and transitioned seamlessly. The team communicated to students how to reach advisors, and within days, students were being served by the Bridge Advisors.

During the height of the pandemic (March 16-June 30, 2020), Bridge Advisors met with 1,549 students compared to 1,244 students during the same period in 2019. Bridge Advisors also noted meeting with more students from campuses outside where the advisor is housed, as well as having more focused conversations and instructional support via sharing tools. The attendance data and qualitative feedback signal the multiple benefits of virtual advising, especially for students who work and/or those who attend campuses in rural communities.

The C4S department will expand access to pre-transfer advising by offering more virtual appointment options for individual and small groups.

C4S STEM Transition Workshop

In June 2020, FIU and Miami-Dade College facilitated a STEM Transfer workshop covering prerequisite completion and milestones, STEM careers, and transition tips, as well as a live chat and question and answer session with peers. The workshop offered virtually, recorded the highest attendance to date, 214 students, across two sessions. The virtual environment may have facilitated more participation of information sharing and engagement for our students. In collaboration with Transfer and Transition Services, the C4S team will increase the number of scheduled transition workshops by adding at least two virtual options while maintaining the current number of in-person options.

Table 3. Retention of Full-Time FTICs After One Year

	NRA	B	AI/AN	A	H	NH/OPI	W	≥ Two	UNK	FEMALE	MALE	TOTAL
Fall 2019 Cohort	115	266	1	109	2458	4	271	65	8	1928	1369	3297
Category % of Total	3%	8%	0%	3%	75%	0%	8%	2%	0%	58%	42%	100%
Enrolled Fall 2020	100	235	1	106	2262	4	232	58	8	1781	1225	3006
Retention Rate	87%	88%	100%	97%	92%	100%	86%	89%	100%	92%	89%	91%

One-year retention rates for full-time FTIC freshmen averaged 91% for Fall 2020. This is a slight increase from the Fall 2019 number of 89% to 91% in Fall 2020. Across the various racial and ethnic groups, the retention rate increased by at least 1% or remained consistent except for the Non-resident alien category. The retention rates for female and male students increased as well.

FIU offers many first-year programs designed to introduce students to the college environment and communicate expectations. The programs, activities, and courses (listed below) have been established to promote and support academic, intellectual, personal, and social growth.

Center for Academic Success

The Center for Academic Success is charged with supporting the retention and graduation of undergraduate students. The Center focuses on freshmen and those nearing graduation. The Center coordinates the creation and distribution of lists that academic advisors use to reach students facing academic risk, or who are approaching graduation. The Center helps students having financial difficulties find resources to continue their enrollment, provides coaching, and mentors a cohort of, particularly, at-risk freshmen students.

First Year Experience Course (SLS 1501)

SLS 1501 introduces students to the university and promotes as well as supports academic, intellectual, personal, and social growth and success.

Exploratory Students

Exploratory student pathways are designed to assist students through self-discovery to choose and plan for a major and a career path. FIU has established career-focused courses to help with the transition into a prospective career and to assist in selecting a suitable major.

The Common Reading Program

This curriculum for all incoming freshmen affords incoming first-year students the opportunity of participating in a common curricular experience that creates community and a common ground for discussion. This is augmented through a series of presentations and lectures across the year.

Peer Mentor Program

The Peer Mentor Program is for students who want to be FIU student leaders by assisting a First Year Experience instructor throughout the length of the SLS 1501 course. Peer mentors guide

fellow peers throughout their first semester of college and are a great resource for students in and outside of the classroom.

Surviving the First Year

Surviving the First Year teaches incoming first-year students how to balance their social and scholastic lives with an understanding of how important it is to get organized, manage their time well, make room for homework, social activities, employment, and, most importantly, time to study.

Academic Planning and Preparation Workshops

FIU has various academic planning and preparation workshops to give students the tools for success. "SUCCESS - THERE'S AN APP (Academic Planning and Preparation Workshops) FOR THAT!"

The University Learning Center

The FIU University Learning Center offers students free tutorial services in the areas of reading, writing, language, and mathematics. Many students take advantage of the free workshops that the Center provides on notetaking, test-taking, and time and organization management.

Fostering Panther Pride (FPP)

FIU's Fostering Panther Pride (FPP) program offers tailored academic and other support services to undergraduate students identified as foster, former foster youth, or homeless. Launched in 2013, the primary goal of FPP is to assist students in their transition to FIU, their retention and graduation, and their pursuit of securing employment or graduate school upon receiving their bachelor's degree.

Table 4. Graduation Rate of Full-Time FTICs by Race/Ethnicity

	NRA	B	AI/AN	A/PI	H	NH/OPI	W	≥ TWO*	UNK	Female	Male	Total
2014-20 Cohort	113	396	0	118	2619	2	313	169	9	2119	1620	3739
Category % of Total	3%	11%	0%	3%	70%	0%	8%	5%	0%	57%	43%	100%
Number of Graduates within 6 yrs from cohort	83	233	0	87	1811	2	181	96	7	1537	963	2500
Percent Graduated	73%	59%	0%	74%	69%	100%	58%	57%	78%	73%	59%	67%
Number Still Enrolled in 6th Year from cohort	5	21	0	6	161	0	17	9	0	73	146	219
Percent Retained	4%	5%	0%	5%	6%	0%	5%	5%	0%	3%	9%	6%

Note: FTIC includes Beginners and Early Admits.

As reflected in Table 4, FIU has a 67% graduation rate for all full-time FTICs. This demonstrates an improvement of about 5.5% compared to the 61.47% graduation rate reflected in the previous year's report. Male students in this group experienced a 3.92% increase in the graduation rate when compared to the previous year's report and the female student graduation rate has a larger increase by approximately 6.23%. There were increases in the number of Asian (74%, up from 65.73% for 2013-2019), Black (59%, up from 54.07%), Non-resident alien (73%, up from 69.87%), and White (58%, up from 54.41%) students that graduated.

In comparing last academic year, the largest total increase in the number of full-time FTICs who graduated were Non-resident alien students and the second largest increase in Black students. There was a slight decrease in the number of Hispanic students (69%, down from 71.10% in 2013-2019) that graduated. No American Indian/Alaska Native students graduate which is a decrease from 75% that graduate in the 2013-2019 cohort.

Table 5. Bachelor's Degrees Awarded by Race

	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO	UNK	TOTAL
AY 2019-20										
Male	393	462	3	128	3142	4	432	107	19	4690
Female	563	908	3	147	4697	9	614	172	27	7140
Total	956	1370	6	275	7839	13	1046	279	46	11830
Category % of Total	8%	12%	0%	2%	66%	0%	9%	2%	0%	100%
AY 2018-19										
Male	343	479	2	110	2818	6	391	103	19	4271
Female	469	886	2	144	4403	3	582	181	19	6689
Total	812	1365	4	254	7221	9	973	284	38	10960
Category % of Total	7%	12%	0%	2%	66%	0%	9%	3%	0%	100%
AY 2014-15										
Male	241	369	2	96	2299	3	358	40	33	3441
Female	347	546	1	112	3455	5	452	79	56	5053
Total	588	915	3	208	5754	8	810	119	89	8494
Category % of Total	7%	11%	0%	2%	68%	0%	10%	1%	1%	100%

Source: IPEDS Completions, GRAND TOTAL BY FIRST MAJOR, Bachelor's degrees. Table for 99.0000, all disciplines.

FIU awarded 11,830 bachelor's degrees during the 2019-2020 academic year, which was an increase from the previous year's 10,960 bachelor's degrees awarded. This constituted a 7.4% increase in degrees awarded. During the same year, 60% of bachelor's degrees were awarded to female students and 40% to male students, compared with 61% and 39% respectively in 2018-2019. During the 5-year period from the 2014-2015 Academic Year to the 2018-2019 Academic Year, the number of degrees awarded increased by 28.20%.

During the 2019-2020 Academic Year, the percentage of bachelor's degrees awarded to each of the various racial and ethnic groups closely mirrored the percentages reported in the 2018-2019 Academic Year with a 1% decrease of Non-resident alien graduates. However, it is important to note the increases in the number of bachelor's degrees awarded to Hispanic students (7,839, up from 6,873), represent an increase of 8% respectively.

Table 6. Master's Degrees Awarded by Race

	NRA	B	AI/AN	A	H	NH/OPI	W	≥Two	UNK	TOTAL
AY 2019-20										
Male	198	144	1	49	670	1	164	26	7	1260
Female	269	329	3	73	1174	3	276	45	16	2188
Total	467	473	4	122	1844	4	440	71	23	3448
Category % of Total	14%	14%	0%	4%	53%	0%	13%	2%	1%	100%
AY 2018-19										
Male	224	125	0	38	615	1	185	17	6	1211
Female	250	305	0	65	1055	1	265	39	16	1996
Total	474	430	0	103	1670	2	450	56	22	3207
Category % of Total	15%	13%	0%	3%	52%	0%	14%	2%	1%	100%
AY 2014-15										
Male	334	131	1	42	581	0	240	17	14	1360
Female	345	234	2	56	875	2	277	23	13	1827
Total	679	365	3	98	1456	2	517	40	27	3187
Category % of Total	21%	11%	0%	3%	46%	0%	16%	1%	1%	100%

Source: IPEDS Completions, GRAND TOTAL BY FIRST MAJOR, Master's degrees. Table for 99.0000, all disciplines.

A total of 3,448 master's degrees were conferred during AY 2019-2020. This represented an increase of 7.51% from AY 2018-2019. It is also an increase of 8.19% from five years ago (AY 2013-2014). Of the total number of master's degrees awarded in AY 2019-2020, females received 2,188, representing 63.46%, whereas males received 1,260 degrees or 36.54%. Hispanic students were awarded the largest number of master's degrees, a continuing trend here at FIU, with 1,844 conferrals representing 53.48% of the total number of master's degrees awarded. At 13.72% Black students and 13.54% Non-resident alien students represented the next largest percentages of the total number of master's degrees awarded. Asian students and White students accounted for 3.53% and 12.76% respectively, of the total number of master's degrees.

Hispanic females represented the largest population with 34.04% of degrees awarded, followed by Hispanic males at 19.43%. Other larger group representations include Black females at 9.54%, Non-resident alien females at 7.8% and White females at 8%; Non-resident alien males at 5.74%, White males at 4.76%, and Black males at 4.18%. There were four master's degrees awarded to both American Indian/Alaska Native and Native Hawaiians/Other Pacific Islander student categories. This represents an increase from previous years. This has been the most in those categories at least in the last three years. From AY 2018-2019 to AY 2019-2020 the number of master's degrees awarded increased by 15.2% for Black males, 11.28% for Hispanic females, 8.94% for Hispanic males, 7.87% for Black females, and 7.6% for Non-resident alien females. There was a percentage decrease for Non-resident alien males (11.61%) and White males (11.35%).

Table 7. Doctoral Degrees Awarded by Race

	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO	UNK	TOTAL
AY 2019-20										
Male	52	4	0	2	24	0	23	1	1	107
Female	25	9	0	2	26	0	21	2	2	87
Total	77	13	0	4	50	0	44	3	3	194
Category % of Total	40%	7%	0%	2%	26%	0%	23%	2%	2%	100%
AY 2018-19										
Male	58	4	0	3	20	0	26	0	2	113
Female	37	7	1	2	26	0	25	3	1	102
Total	95	11	1	5	46	0	51	3	3	215
Category % of Total	44%	5%	0%	2%	21%	0%	24%	1%	1%	100%
AY 2014-15										
Male	40	3	0	3	16	0	22	3	1	88
Female	27	14	0	7	24	0	27		2	101
Total	67	17	0	10	40	0	49	3	3	189
Category % of Total	35%	9%	0%	5%	21%	0%	26%	2%	2%	100%

Source: IPEDS Completions, GRAND TOTAL BY FIRST MAJOR, Doctoral degrees. Chart for 99.0000, all disciplines.

FIU awarded 194 doctoral degrees in AY 2019-2020, a decrease of 21 (9.7%) degrees awarded from last year's 215. Most, 39.69%, were awarded in the Non-resident alien category, a continuing trend from last academic year. The next largest category was that of Hispanic students with 26% of total doctoral degrees. This is a change from the previous year, where the second largest category was White students.

Males represented 55.15% of the doctoral degrees and females represented 44.85%. There was a 14.71% decrease in the representation of female students both in the number of degrees awarded and percentage representation since the last academic year and a 13.86% decrease from 2014-2015. This is an area for improvement as the number of degrees awarded to female students has decreased.

From AY 2018-2019 to AY 2019-2020 the number of doctoral degrees awarded increased by two for Black students and four for Hispanic students. The number of degrees decreased by 18 for Non-resident alien students and six for White students. There were no doctoral degrees awarded to Native Hawaiians/Other Pacific Islander and American Indian/Alaska Native categories in AY 2019-2020. Although there have been positive increases since the last academic year, increasing the number of degrees awarded to Black and Asian students is an area for improvement.

Table 8. First Professional Degrees Awarded by Race

	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO	UNK	TOTAL
AY 2019-20										
Male	NRA	7	1	16	63	1	59	4	6	158
Female	1	22	1	17	95	0	60	9	2	207
Total	2	29	2	33	158	1	119	13	8	365
Category % of Total	1%	8%	1%	9%	43%	0%	33%	4%	2%	100%
AY 2018-19										
Male	1	12	0	16	67	0	53	4	9	162
Female	2	17	0	16	92	0	64	5	3	199
Total	3	29	0	32	159	0	117	9	12	361
Category % of Total	1%	8%	0%	9%	44%	0%	32%	2%	3%	100%
AY 2014-15										
Male	1	9	0	4	50	0	61	1	6	132
Female	0	12	1	10	59	1	60	2	6	151
Total	1	21	1	14	109	1	121	3	12	283
Category % of Total	0%	7%	0%	5%	39%	0%	43%	1%	4%	100%

Source: IPEDS Completions, GRAND TOTAL BY FIRST MAJOR, First Professional degrees. Chart for 99.0000, all disciplines.

The designation of “First Professional Degrees” represents degrees awarded through the College of Law (JD), the Herbert Wertheim College of Medicine (MD), the Nicole Wertheim College Nursing and Health Sciences (DNP), and Physical Therapy (DPT) programs. The number of degrees awarded in this category for AY 2019-2020 was 365, a slight increase of 1.1% over AY 2018-2019.

Females received 56.71% of these degrees and males received 43.29%. Hispanic students represented the largest group, 43.29% of degree recipients, White students represented the second largest group with 32.6% of degree recipients. Asian degree recipients represented 9.04% and Black students represented 7.95%. As such, the larger group categories remained stable, compared to the previous year. There were two degrees awarded in the American Indian/Alaska Natives group, and one in the Native Hawaiians/Other Pacific Islander group. These numbers represent an increase from AY 2018-2019, where there were no graduates in those group categories. There was a decrease of total degrees awarded to Non-resident alien students between AY 2018-2019 and AY 2019-2020 from three degrees to two.

At FIU graduate student recruitment is part of the Enrollment Management Services portfolio. The University Graduate School (UGS) is primarily focused on supporting doctoral programs and attracting a diverse pool of highly qualified applicants. As such, UGS provides funding to doctoral programs to implement specific recruitment activities that require a cost-match from the Colleges in which they reside. One of UGS’ requirements for funding allocation is that one or several activities must be targeted to the recruitment of underrepresented minority students. Doctoral programs utilize these funds to participate in conferences that specifically target the

participation of minoritized students in their areas of research and visitations to HBCUs and other HSIs. An Inclusion Fellowship is presently offered at UGS. This fellowship was created to encourage promising undergraduate and master's students who are underrepresented minorities or people with disabilities, to pursue a Ph.D. degree. The Inclusion Fellowship supports Ph.D. students in any discipline for up to two years with another two years of funding provided by the graduate program through a teaching or research assistantship. Three fellowships were awarded in AY 2019-2020.

There was continued engagement by UGS with state and national programs to encourage the participation of underrepresented minority students in graduate education. The Ronald E. McNair program is a Federal TRiO program designed to prepare students from low-income, first-generation, and traditionally under-represented groups for doctoral studies. At FIU we have 27 active McNair scholars every year of which approximately 30% transition to FIU for graduate studies. The FIU McNair and Undergraduate Research Conference was held in October 2019. We had over 200 underrepresented STEM students from within and outside FIU attend. Three FIU doctoral students were awarded fellowships from The National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc. (GEM) in AY 2019-2020.

FIU participated in the National Name Exchange (NNE). This is a consortium of fifty-five nationally-known universities which on an annual basis collect and exchange the names of talented underrepresented ethnic minority students who are in their sophomore, junior or senior year of their undergraduate education. The purpose of the exchange is to ensure that participating universities continue to identify a pool of qualified students who could be recruited to the graduate programs at these institutions. From the shared list of underrepresented minority students, we sent students communication about opportunities at FIU. As a result of our recruitment activities, FIU hosted 5 new fully funded McKnight Fellows and three Affiliate fellows starting in Fall Semester 2019. McKnight Fellows, who are Black and Hispanic doctoral students, receive a \$12k stipend from the Florida Education Fund (FEF), in addition to a \$12,000 enhancement and medical insurance supplement from UGS.

During AY 2019-2020 UGS supported 8 underrepresented minority students and provided professional development opportunities as fellows of the Bridge to the Doctorate program. This program is under the Florida-Georgia Louis Stokes Alliance for Minority Participation (FG-LSAMP) to enhance recruitment and retention of underrepresented minority students in STEM disciplines. In collaboration with the FIU Biomolecular Sciences Institute (BSI), UGS submitted and was awarded a National Institute of General Medicine (NIGMS) training grant (T32) to support 8 PhD students in transdisciplinary biomolecular sciences. For this program, we are specifically recruiting at FAMU and Bethune Cookman who agreed to support us in our efforts to increase the representation of Black students in our doctoral programs. The first cohort was appointed in Fall 2019 with 3 underrepresented minority fellows.

The Willie Williams monetary award to recognize Achievements in Building Awareness and Strengthening Cultural Diversity in Higher Education was awarded by UGS to three doctoral students. The award rewards the contributions of graduate students who excel in utilizing

positive and pro-active communications to promote continued efforts in the areas of diversity and improved race relations in academia.

In AY 2019-2020 we also improved some of our processes and added programming to better serve students. Enhanced service to students in general, impacts equity in that UGS' services and programming are geared to improve retention and timely graduation rates, and to provide professional development assistance during students' graduate careers.

For instance, UGS has consistently improved orientations (held in Fall and Spring) for incoming graduate students to be broader and more inclusive of policy review and updates and allowed for individualized student interaction with staff.

A Graduate Program Director professional development program to strengthen the engagement of these faculty and enhance their mentoring skills was also initiated by UGS. This is essential to aid the retention of students. Informational workshops on policies and best practices were also offered by UGS.

The University Graduate School addressed some wellness concerns, by providing programming to promote awareness of the mental health and wellness resources on campus. Although planned prior to FIU going remote due to the pandemic, this programming was additionally useful to students given the increased interest in these resources due to the socio-emotional effects of the pandemic.

External faculty and professionals with specific expertise were hosted by UGS to provide a series of workshops to our graduate students in STEM, Social Sciences, and Humanities on identifying and applying for external funding sources.

Areas for Improvement

The University Graduate School at FIU primarily manages theses and dissertation guidelines and policies, and some funding and programming for research degrees, as such these, are areas we impact.

Master's Degrees Awarded

Representation of groups obtaining master's degrees mirrors the local demographics and we would like to continue ensuring that this is the case. One area for improvement is the increase in the number of AI/AN (Native American or Indigenous) students in master's programs.

Doctoral Degrees Awarded

In previous years we have identified recruitment and retention of Black and Hispanic doctoral students as a primary goal for our graduate programs, specifically STEM. Numbers in both groups rose slightly in AY 2019-2020. We will continue to pursue strategies described in the Recruitment, Retention, and Support section of the narrative to increase representation.

There was a decrease of 21 doctoral degrees awarded this year when compared to last year. This could be attributed to some of the concerns expressed by students about delays in their research in Spring and Summer 2020 due to the pandemic. This would impact completion of their

dissertations and degrees. Examples include inability to collect data, needing to pivot to online data collection, inability to travel for research purposes, restrictions in going to the lab, and delays traveling back to the U.S. However, it would be useful to complete an analysis of factors that may affect attrition, as this impacts all doctoral categories of degrees awarded.

Targeted Goals

To increase the proportion of research doctorates awarded to Black students by 1% each year so that by AY21-22 Black students will represent 9% of research doctorates awarded.

To increase the proportion of research doctorates awarded to Hispanic students by 1% each year so that by AY21-22 Hispanic students will represent 28% of research doctorates awarded.

Action Plan

Year 1 (AY 2020-2021) and Year 2 (AY 2021-2022)

- Master's Degrees: Working with local contacts to pursue recruitment in regional Native American communities (e.g. Seminole/Miccosukee)
- Doctoral Degrees: Continue to pursue strategies described in the Recruitment, Retention, and Support section of this narrative to increase representation. This includes programming, fellowships, tuition waivers, and other contributions to academic programs for direct student funding and recruitment.
- Assess the impact of UGS requirements for funding allocation related activities targeted to the recruitment of underrepresented minority students.
- Increase by 10% the number of underrepresented doctoral students that are supported by internal and external grants and fellowships.
- Complete an analysis to better understand attrition
- Strengthen recruitment at HBCUs

With the establishment of the Division of Diversity, Equity, and Inclusion, institutional goals that will work towards fostering a culture of belonging and towards eliminating disparities within the FIU community among underrepresented groups have been identified. These goals will also help improve the areas that have been identified as areas for improvement. The following goal has been established with tactics and strategies toward achieving the stated goals.

REPRESENTATION: *Recruit, Retain, and develop a Diverse Community*

PRIORITY: Graduate Students

To achieve this, the university is researching and identifying barriers that impact the recruitment, retention, and graduation of historically underrepresented minorities – initially, with a focus on graduate students toward increasing the production of doctoral to the professoriate. Toward their retention, the focus will be on these areas:

- advising (academic, financial, and mental health)
- interaction with faculty and administrators

- and curriculum.

ANTICIPATED OUTCOMES

- Identifying barriers that impact recruitment, admissions, and retention of doctoral students.
- Create an action plan to remedy and remove identified barriers to increased enrollment of underrepresented minority graduate and professional student body.
- Report by Fall, 2022 identifying recommendations of efforts to effectively restructure to remove barriers noted.

TACTICS:

- Create platforms to conduct and engage in listening sessions with students.
- Create 'belonging' climate surveys and report findings and recommendations.
- Conduct qualitative and quantitative analysis of our current recruitment, enrollment, retention practices, and processes.
- Conduct listening sessions with Graduate Program Directors to understand their roles and challenges in recruitment as well as support to graduate students and their retention.
- Compile report to recommend actions to be conducted by Graduate Program Directors.
- Collaborate with HBCUs (historically black colleges and universities) and other MSIs (minority-serving institutions) to recruit underrepresented minorities into our graduate programs.
- Launch visitation programs for underrepresented minority prospective undergraduate, graduate, and professional students.
- Create a cohort model for underrepresented minority doctoral students.

This page intentionally left blank

B. Student Services

1. Academic Advising

FIU students have equal access to utilize academic advising services. The university is particularly committed to providing equitable advising services to undergraduate students and employs a diverse staff of over 125 professional academic advisors who can serve as guides and mentors for the university's diverse student population. All undergraduate students have access to an online advising platform (the Panther Success Network) that enables them to connect with an advisor and make advising appointments. Each student is assigned to a professional academic advisor from their academic department who is responsible for guiding their progress toward earning a degree. Graduate students are assigned to and work with faculty members from their respective disciplines. All students also have access to an online degree audit and other advising tools that provide information on degree requirements and track their progress toward completing their degree.

Advising Services

During Spring 2020, the university (and institutions throughout the U.S. and the world) was faced with an unprecedented challenge related to the outbreak of the COVID-19 virus. In March, all courses and services were moved to a remote/virtual format to comply with Executive Orders designed to keep the community safe and help reduce the spread of the virus. From an advising standpoint, that meant moving all advising appointments to online meetings utilizing the Zoom platform. Fortunately, the Panther Success Network advising system was already equipped to handle online/virtual appointments (since they also advise students who are enrolled in fully online programs), so the transition occurred quickly and relatively seamlessly.

Since March 2020, students have utilized the Panther Success Network to send and receive messages to and from their academic advisors, as well as schedule and hold remote appointments. From March 16 through August 6, there were a total of 36,010 unique undergraduate advising appointments across all schools and colleges. Fall 2019 to Fall 2020 re-enrollment data showed that of students who attended an advising session during the academic year, 94% Hispanic students re-enrolled, 94% Black students re-enrolled, and 92% White students re-enrolled. College Life Coaches met with 320 students during the 2019-2020 year. Of those, 60.6% re-enrolled for Fall 2020: Hispanic students 60.8%; Black students 60.3%; White students 54.8%.

In addition to meetings and communications with current FIU students, the academic advisors also successfully conducted orientation advising sessions for thousands of new freshmen and transfer students who enrolled for the first time at FIU in summer/fall (3,752 freshmen and 4,724 transfer students). Students were first required to complete the Virtual Orientation (VO), then register for the web-based in-person (zoom) session. During the in-person (zoom) session, students were first provided information about academic and student affairs, student financials, student conduct, and academic integrity during a general session. Following the general sessions, students were divided into smaller groups based on major. Each group received an advising presentation specific to their program which was followed by individual meetings with an academic advisor to discuss degree requirements and course selection in more detail.

Some of the DEI-related training for academic advisors during the 2019-2020 year included Safe Zone, Green Zone, Who Are Our Students, Disability Resources, and various brown bag lunches (veterans, LGBTQA, gender pronouns, students in recovery, etc.).

Retention and Graduation Support/Student Success Outreach Initiatives

During the 2019-2020 academic year, the academic advising community actively participated in several outreach campaigns designed to support student success and assist students with making positive progress toward their degrees. These included advising appointment campaigns to the 2019 FTIC students (September-November and February-May) to encourage Spring and Summer/Fall enrollment, as well as advising appointment campaigns to students approaching 90 credit hours to assist in mapping out the final semesters to graduation.

Beginning Summer 2019, Academic and Career Success implemented a cohort tracking project. Each semester, Academic and Career Success provided the colleges with updated analysis on each of their FTIC students, with a focus on those students who are approaching or completing their fourth year. Each students' progress was tracked through indicators such as credits earned and in progress, GPA, remaining courses needed and their availability, future enrollment, financial concern, etc. Throughout the year, the advisors were asked to review each student in the 2016 FTIC cohort and indicate whether they are "on track" for four-year graduation. They worked with the students if/when any actions were needed to keep them on track for on-time graduation. Academic and Career Success supported the advisor's efforts in advocating for the students and removing any barriers to their success. This project has led to more targeted outreach and intervention and has ultimately contributed to an increase in four-year graduation. Beginning Summer 2020, the project shifted focus to the 2017 FTIC cohort.

Recently, Academic and Career Success hired a Student Success Advocate and two Student Success Specialists to assist with supporting the colleges in their student success efforts. The Student Success Advocate identifies targeted populations of students for retention and/or graduation-related outreach. The Student Success Specialists reach out to the students, document any barriers the students are facing, and work closely with the Student Success Advocate to resolve pending barriers to success. Academic and Career Success also collaborates with the Colleges and advisors on their findings.

Self-Assessment: Excellence in Academic Advising

In Spring 2018, FIU was selected to participate in a self-study of undergraduate academic advising, as part of a national project called Excellence in Academic Advising (EAA). The project is a joint initiative between the John N. Gardner Institute for Excellence in Undergraduate Education and NACADA: The Global Community for Academic Advising. Twelve charter institutions across the country were selected to participate and were guided through a comprehensive, standards-based assessment process of decision-making, planning, and implementation that promotes excellence in academic advising. For more information, please see <https://nacada.ksu.edu/Programs/Excellence-in-Academic-Advising.aspx>.

At the beginning of Fall 2019, an academic advising survey was electronically sent to all active undergraduate students and all university employees to assess the perceptions and experiences of students, faculty/staff who have advising responsibilities, and faculty/staff who do not have

advising responsibilities. The academic advising surveys were designed to elicit feedback from key stakeholders in the institution and were directly related to the Key Performance Indicators within the nine Conditions of Excellence in Academic Advising.

The Academic Advising team received 830 responses from students. Tekla Nicolas, Ph.D., Senior Researcher with FIU's Analysis and Information Management (AIM) division, conducted an in-depth analysis of the student survey qualitative results. In summary, *"students tell us about the most important thing for advisors to do is to guide them and prepare them to successfully complete the journey to graduation and into a career. A review of both positive and negative comments displayed a common set of advising needs to guide students to graduation and beyond. Responses indicated that these needs were very well satisfied for some students, but for others, they were frustratingly absent or difficult to access. This suggests that the advising community is equipped with an opportunity to take the best of academic advising at FIU and ensure it is broadly and equitably available across academic units, campuses, and learning modalities. Students emphasized the need for consistent and reliable information, accessible when needed through flexible modalities, delivered with encouragement and support for the student's goals and aspirations. At best, advising goes beyond the basics, of course, planning to include the development of habits for success, support through setbacks, and celebration of achievements"*. An additional 224 survey responses from faculty and staff were received. While a comprehensive analysis was still being completed, the members of the Conditions committees reviewed raw data as evidence when discussing their recommendations.

At the end of Fall 2019, the EAA task force held a retreat to share findings of each of the nine Conditions, review FIU data and survey results, and discuss recommendations. In Spring 2020, the academic advising team finalized the Cohort I report for EAA, outlining the task force recommendations. The next steps include working with the Task Force and the Advising Council to prioritize the recommendations and create working groups to evaluate all implementation strategies through the lens of diversity, access, and equity, as work with the EAA proceeds with the second cohort during the 2020-2021 year.

For the 2020-2021 reporting year, the feasibility of offering a mentorship program will be explored to support students on a university-wide basis and help with engagement and retention. The student academic advising survey, administered as part of the EAA process, will be replicated annually so that feedback can be provided to each college.

Advising Organizational Structure and Personnel

FIU utilizes a decentralized advising system for all undergraduate students that relies on a team of professional academic advisors and receives support and coordination from a centralized team of administrators and technological support. As previously mentioned, graduate students receive their advising and academic support from the faculty mentors and administrative staff of their respective academic departments.

Centralized advising efforts are coordinated by the Associate Provost for Academic and Career Success and her team of student success administrators. That team includes an Associate Director who is charged with working with all the academic units and providing support to all undergraduate professional academic advisors. Her responsibilities also include developing and coordinating training sessions for newly hired advisors, and professional development workshops that are offered to all academic advisors and advising leads throughout the year.

That Associate Director also supervises a Manager of Academic Support Services, two Student Success Specialists, and a team of College Life Coaches who provide additional support to the academic advising community and to students who need additional assistance with staying on track. The Associate Provost also supervises a team dedicated to Academic Advising Technology, which includes the use of several tools that support advisors' ability to manage their advising caseloads. In addition, the Associate Provost supervises two additional staff members who work to support the academic units' efforts to utilize predictive analytics to identify students who need additional support and develop reporting mechanisms that allow the institution to track our progress on improving retention and on-time graduation rates. This centralized support has created a unique situation in which our decentralized advising system not only functions effectively but also ensure a level of consistency (across academic units) that is normally more difficult for universities to achieve.

As part of the decentralized advising system, FIU relies on over 125 professional academic advisors who report directly to academic administrators who oversee the advising initiatives for each of the respective academic colleges/schools. Those academic administrators participate in a university-wide policy group called the Council for Undergraduate Academic Advising that meets monthly to discuss academic policies and procedures. They also participate in an ad hoc group of "advising leads" who meet regularly with the central administration to discuss issues and concerns related to academic advising. Through these efforts, the university ensures that students in each of the academic units receive comparable advising support and that academic policies are applied equitably across academic units.

The Associate Provost and her team also monitor the advising ratios for each of the professional advisors throughout the university. In doing, advising ratios have decreased to around 400 students (on average) for each advisor, a number that will continue decreasing.

2. Admission to Academic Programs

Strive for College

FIU was accepted as a partner with Strive for College; an online platform that provides mentoring, guidance, and college discovery to high school students who are the first in their families to go through the college search, application, and enrollment process. There are only three (3) Strive for College Institutions in Florida. Strive for College provides college partners with the opportunity to connect with students and mentors through an online learning community and face-to-face interaction. First-generation college students connect with not only colleges and universities, but also mentors who are leaders in the industry to learn not only about the college search and selection process but also have someone guide them through to graduation. Strive for College has proven results, 97% of the high school students, “Strivers” went to college and 84% of them attended a four-year institution.

FIU is highlighted on the “I’m First!” website and in the “I’m First” Guide to College. High schools around the country receive the guide as well as access to the Strive for College platform, therefore, connecting first-generation college students with access to FIU and the resources the university has to offer. FIU also benefits from professional development initiatives such as best-practice webinars and a supportive learning community with 135 like-minded institutions providing equity and access to higher education. See striveforcollege.org for additional details.

Campus Tours

Campus tours were provided to various elementary, middle, and high school students participating in community outreach programs and from Title I schools. This exposure to higher education and the possibilities that come with it serves as a motivating factor for academic achievement.

The following community organizations and Title 1 schools were provided campus tours, accounting for over 2,000 student visitors.

Table 1. Community Organizations visit FIU		
Group Name	Tour Date	Students
Sergeant Delancey Park	7/2/19	20
FIU After School All Stars	7/2/19	44
FIU-ENLACE	7/5/19	23
FIU-ENLACE	7/10/19	31
TRIO Educational Talent Search	7/10/19	38
Miccosukee Higher Education Department	7/12/19	10
Achieve Miami	7/12/19	64
Educate Tomorrow	7/15/19	15
Martin Luther King Jr Park	7/15/19	23
FIU-ENLACE	7/17/19	28
Boys and Girls Hank Kline Club	7/17/19	19

MERGE, Inc.	7/18/19	15
FIU - ENLACE	7/24/19	27
Achievement Center for Children and Families	7/25/19	40
TCC Educational Talent Search Program	7/26/19	30
Big Brothers Big Sisters	8/2/19	9
YWCA of Greater Miami	9/3/19	25
FIU Education Effect	10/4/19	37
AVID Sumter County School District	10/17/19	37
Take Stock in Children - Monroe	11/6/19	38
Black Student Union at Flanagan High school	11/7/19	8
Young Kings & Queens College Prep	11/25/19	50
Take Stock in Children-Big Brothers and Big sisters	2/1/20	31
Student Access and Success (Education Effort)	2/12/20	75
The Immokalee Foundation	3/9/20	38
Women of Tomorrow	3/11/20	9
Trio Talent Search	10/14/20	30
TRIO Talent Search Program- Palm Beach State College	10/18/20	50

Table 2. Title I Schools visit FIU

School Name	Tour Date	Students
Dorcas Outreach Center for Kids (A Neighbor Up Brevard affiliate)	8/5/2019	9
Hialeah Gardens High School	9/11/2019	41
Bloomingdale Senior High School AVID	9/20/19	41
Youth Co-Op Preparatory School	9/23/2019	40
Palm Glades Academy	9/26/19	23
Palm Glades Academy	10/3/19	33
Palm Glades Academy	10/10/19	50
John A. Ferguson Senior High School	10/11/2019	40
Cutler Bay Senior High	10/15/2019	42
Miami Southridge Senior High School	10/23/19	40
Coral Shores High School	10/23/2019	54
Miami Killian Senior High School	10/24/2019	30
McArthur High School	10/28/2019	55
Miramar High School	10/29/19	25
iMater Prep High School	11/1/19	43
Miami Police Athletic League (Teen Leadership Circle)	11/4/2019	25
City of Hialeah Educational Academy	11/5/2019	60
Coral Springs High School	11/5/2019	40

Palm Beach Gardens High School	11/6/19	50
Carlos J. Finlay Elementary School (c/o FIU Office of Engagement)	11/7/2019	86
Care Elementary	11/12/19	11
South Ft. Myers High School	11/13/19	51
Gibbs High School	11/14/19	50
Port Charlotte High School	11/15/2019	36
Arthur & Polly Mays Conservatory of the Arts	11/20/19	30
Miramar High School Mentoring Programs	11/20/19	17
Somerset Preparatory North Lauderdale High School	11/25/19	38
John A. Ferguson Senior High School	11/26/2019	31
Charter High School of the Americas	12/2/2019	26
Coconut Palm K-8 Academy	12/4/2019	6
Oak Ridge High School	12/5/19	38
East Lee County High School	12/5/19	52
Hallandale High School	12/6/19	31
City of Hialeah Educational Academy	12/16/2019	30
Shepherd Of God Christian Academy	12/16/19	15
Calusa Preparatory School	12/17/2019	11
Kinloch Park Middle School	12/18/2019	45
Hialeah High School	1/16/20	17
Center City Public Charter School- Congress Heights	2/27/20	36
Center for International Education- GSA	3/5/20	25
AVID South Fork High School	12/19/20	27

This page intentionally left blank

Table 3. Ambassador scholarships by race/ethnicity			
2020 Ambassador Distinct Award Count		Admit Type	
Term	Ethnicity	FTIC	Total Distinct
Fall 2019	Asian	8	8
	Black or African American	8	8
	Hispanic/Latino	116	116
	Not Hispanic	1	1
	White	26	26
	Two or More	6	6
	Choose Not to Respond Ethnicity	1	1
Fall 2019 Total		166	166
Spring 2020	Asian	7	7
	Black or African American	8	8
	Hispanic/Latino	107	107
	Not Hispanic	1	1
	White	24	24
	Two or More	5	5
	Choose Not to Respond Ethnicity	1	1
Spring 2020 Total		153	153
Summer 2020	Asian	6	6
	Black or African American	4	4
	Hispanic/Latino	91	91
	White	16	16
	Two or More	3	3
Summer 2020 Total		120	120
Total Distinct		170	170

Table 4. Gold and Blue scholarships by race/ethnicity				
2020 Gold & Blue Distinct Award Count		Admit Type		
Term	Ethnicity	FTIC	Transfer	Total Distinct
Fall 2019	American Indian or Alaska Native	1		1
	Asian	86	39	125
	Black or African American	108	122	230
	Hispanic/Latino	1536	1131	2667
	Native Hawaiian/Oth Pac Island		2	2
	Not Hispanic	2	7	9
	White	186	195	381
	Two or More	36	27	63
	Choose Not to Respond Ethnicity	4	34	38
Fall 2019 Total		1959	1557	3516
Spring 2020	American Indian or Alaska Native	1		1
	Asian	79	37	116
	Black or African American	104	118	222
	Hispanic/Latino	1459	1054	2513
	Native Hawaiian/Oth Pac Island		1	1
	Not Hispanic	2	6	8
	White	166	184	350
	Two or More	35	24	59
	Choose Not to Respond Ethnicity	4	36	40
Spring 2020 Total		1850	1460	3310
Summer 2020	American Indian or Alaska Native	1		1
	Asian	70	27	97
	Black or African American	99	90	189
	Hispanic/Latino	1331	800	2131
	Native Hawaiian/Oth Pac Island		2	2
	Not Hispanic	2	2	4
	White	148	119	267
	Two or More	28	17	45
	Choose Not to Respond Ethnicity	3	25	28
	(blank)	1		1
Summer 2020 Total		1683	1082	2765
Total Distinct		2152	1699	3851

Table 5. National Merit/National Hispanic – College Board Recognition scholarships by race/ethnicity

2020 National Premier Distinct Award Count		Admit Type	
Term	Ethnicity	FTIC	Total Distinct
Fall 2019	Hispanic/Latino	54	54
	White	5	5
Fall 2019 Total		59	59
Spring 2020	Hispanic/Latino	50	50
	White	5	5
Spring 2020 Total		55	55
Summer 2020	Hispanic/Latino	38	38
	White	4	4
Summer 2020 Total		42	42
Total Distinct		59	59

Table 6. Presidential Scholars by race/ethnicity

Term	Ethnicity	FTIC	Total Distinct
Fall 2019	Asian	16	16
	Black or African American	8	8
	Hispanic/Latino	130	130
	Not Hispanic	1	1
	White	34	34
	Two or More	3	3
	Choose Not to Respond Ethnicity	2	2
	American Indian or Alaska Native	1	1
Fall 2019 Total		195	195
Spring 2020	Asian	14	14
	Black or African American	8	8
	Hispanic/Latino	116	116
	Not Hispanic	1	1
	White	30	30
	Two or More	3	3
	Choose Not to Respond Ethnicity	1	1
	American Indian or Alaska Native	1	1
Spring 2020 Total		174	174
Summer 2020	Asian	10	10
	Black or African American	6	6
	Hispanic/Latino	90	90
	Not Hispanic	1	1
	White	21	21
	Two or More	3	3

	Choose Not to Respond Ethnicity	1	1
Summer 2020 Total		132	132
Total Distinct		198	198

RaiseMe Micro Scholarships

FIU is entering its fifth year as a partner with RaiseMe Micro Scholarships. These awards enable students to earn scholarship money throughout their high school career by doing things that prepare them for college. This social enterprise is focused on expanding access to affordable education by demonstrating that finances shouldn't be a barrier to achieving dreams.

More than one-third (1/3) of each FTIC class comes to FIU with some micro-scholarship funding and FIU added the transfer platform in 2018. Students who participate in Connect4Success can earn up to \$1000 while earning their AA degree at a partner state college. These students are encouraged to stay on track and take the required prerequisites for their major.

Table 7. RaiseMe Scholarships by race/ethnicity				
2020 FIURME Awards Count		Admit Type		
Term	Ethnicity	FTIC	Transfer	Grand Total
Fall 2019	American Indian or Alaska Native	1		1
	Asian	76	2	78
	Black or African American	136	5	141
	Hispanic/Latino	1,876	40	1,916
	Native Hawaiian/Oth Pac Island	1		1
	Not Hispanic	3		3
	White	127	1	128
	Two or More	29		29
	Choose Not to Respond Ethnicity	1		1
1198 Total		2,250	48	2,298
Spring 2020	American Indian or Alaska Native	1		1
	Asian	69	1	70
	Black or African American	123	5	128
	Hispanic/Latino	1,781	32	1,813
	Native Hawaiian/Oth Pac Island	1		1
	Not Hispanic	3		3
	White	119	1	120
	Two or More	28		28
	Choose Not to Respond Ethnicity	1		1
1201 Total		2,126	39	2,165
Summer 2020	American Indian or Alaska Native	1		1
	Asian	71	1	72
	Black or African American	127	5	132
	Hispanic/Latino	1,809	29	1,838
	Native Hawaiian/Oth Pac Island	1		1

	Not Hispanic	2		2
	White	119	1	120
	Two or More	26		26
	Choose Not to Respond Ethnicity	1		1
1205 Total		2,157	36	2,193
Grand Total		6,533	123	6,656

Student Recruitment and Travel

FIU Office of Admissions engages in student recruitment in and out of Florida. The staff use data mining tools from the CollegeBoard and Hobsons to determine which high schools to visit and college fairs to attend. FIU staff goals are based on the university strategic plan and BOG metrics and are also based on the mission of FIU. Out-of-state recruitment is limited to urban areas around Los Angeles, Houston, Atlanta, Washington DC, and Illinois. In-state recruitment is focused on South Florida, Hillsborough County, Orange County, and Duval County, and larger cities.

Golden Promise

FIU implemented the Golden Promise in 2018; this is a commitment to entering FTIC with an EFC of \$0 that the university will meet 100% of their tuition and fees with grants and scholarship aid. This program helps to reduce the number of loans that these students will have to secure (if any). Students with the Golden Promise can stack this award with funds from Raise.Me or Florida Bright Futures, therefore, meeting the needs of books and supplies as well. Approximately 1/3 of the incoming freshman class receives the Golden Promise.

Other Efforts

FIU's Office of Admissions is a prominent fixture in community-based organization events. Staff have hosted free college application workshops, financial aid workshops, and college search workshops for Breakthrough Miami, I Have a Dream, and 5000 Role Models, Inc. and have actively participated in college fairs in the community through the Seminole Tribe of Florida, 100 Black Men of Jacksonville, and the Black Brown College Bound Summit.

The office also supports the community by engaging with the students at the events such as the Honey Shine, Inc. Hats Off Luncheon. Enrollment Management and Services in partnership with the Office of Admissions also hosts Miami-Dade County Public Schools Counselors at the FIU MLK Annual Breakfast. The school counselors in attendance feel like it allows them to get to know the faculty, staff, and students at a deeper level. It also helps them to understand FIU's commitment to diversity. School counselors know that FIU doesn't solely use "access" as a mission statement but lives "in access" by providing opportunities to a variety of students regardless of their race or ethnicity.

Participation and presentations regarding diversity, equity, and access have been presented by FIU Office of Admission staff members at the following professional organization national conferences: National Association for College Admission Counseling's Guiding the

Way to Inclusion; College Board's A Dream Deferred. The office also participates in the graduate program "Black Professionals Summit" that assists in the education of Black and African American professionals about the benefits of post-baccalaureate education.

3. Counseling and Student Health Services

The Student Health Fee funds several student support departments which are managed across two separate divisions. The Division of Academic Student Affairs oversees Counseling and Psychological Services (CAPS), the Healthy Living Program (HLP), and the Victim Empowerment Program (VEP), among others. CAPS, HLP, and VEP provide mental health and health education/promotion services. The Student Clinics, managed by the FIU Health Care Network (HCN) provide students with primary medical care. All registered students who pay the student health fee for the corresponding semester have access to services offered by these four departments. Through these collective programs and services, SHW helps students lead healthier and more fulfilling lives.

Note:

The data presented in this report are from two separate electronic medical records; the Student Clinics and the Healthy Living Program both utilize PyRAMED Health Systems, while CAPS and VEP utilize Titanium.

Student Health and Wellness Overview

Student Health and Wellness (SHW), housed within the Division of Academic and Student Affairs, helps students succeed both personally and academically. Recognizing each student is an individual with different needs, SHW programs and services emphasize the nine dimensions of wellness, educating students about building their personal toolbox of skills they can use to enhance their overall wellbeing.

Dimensions of wellness:

1. Cultural
2. Emotional
3. Environmental
4. Financial
5. Intellectual
6. Occupational
7. Physical
8. Social
9. Spiritual

Student Clinics and Healthy Living Program Equity data fiscal year 2019-2020

The Student Clinics and the Healthy Living Program continue to provide services to all registered students who paid the health fee. As anticipated, most students who accessed services were between the ages of 18-25, congruent with a college student population. Services were primarily accessed by female students, accounting for 68.05% of all encounters. Over half of the appointments seen were for Hispanic students (53.15%), followed by White (16.20%) and Black students (15.64%). The students who access services had similar demographics to the [FIU AIM dashboard](#) for the 2019-2020 academic year.

Table 8. Age of students by service

Age Ranges	BBC Clinical Services		MMC Clinical Services		Healthy Living		Total	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Under 18	2	0.12%	14	0.17%	33	0.53%	49	0.31%
18-25	1075	66.03%	5721	69.74%	4559	73.28%	11355	70.74%
26-35	419	25.74%	2059	25.10%	1172	18.84%	3650	22.74%
Over 35	132	8.11%	409	4.99%	457	7.35%	998	6.22%

Table 9. Student Demographics by Age- Enrolled

Age Ranges	2017-18	2018-19	2019-20
Between 18 and 21	8542	8705	8917
Between 22 and 25	4458	4665	4906
Between 26 and 30	2248	2404	2485
Between 31 and 39	1351	1454	1506
Under 18	668	940	809
Over 39	739	833	848

Table 10. Gender of students by service

Age Ranges	BBC Clinical Services		MMC Clinical Services		Healthy Living		Total	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Female	1184	72.73%	5250	63.99%	4506	72.18%	10940	68.05%
Male	441	27.09%	2950	35.95%	1712	27.42%	5103	31.74%
Other	3	0.18%	5	0.06%	25	0.40%	33	0.21%

Table 11: Student Demographics by Gender- Enrolled

Age Ranges	2017-18	2018-19	2019-20
Female	10487	11113	11193
Male	7516	7886	8275
Not Reported	3	2	3

Table 12. Ethnicity of students by service

	BBC Clinical Services		MMC Clinical Services		Healthy Living		Total	
Ethnicity	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
American Indian	3	0.18%	10	0.12%	9	0.14%	22	0.14%
Asian	184	11.30%	748	9.12%	387	6.20%	1319	8.20%
Black	389	23.89%	1241	15.12%	884	14.16%	2514	15.64%
Hispanic	691	42.44%	4160	50.70%	3693	59.16%	8544	53.15%
Not Reported	1	0.06%	5	0.06%	3	0.05%	9	0.06%
Other	99	6.08%	619	7.54%	346	5.54%	1064	6.62%
White	261	16.03%	1422	17.33%	921	14.75%	2604	16.20%

Table 13. Student Demographics by ethnicity- Enrolled

Age Ranges	2017-18	2018-19	2019-20
Hispanic/Latino	10775	11155	11175
Nonresident Alien	2072	2345	2831
Black or African American	2269	2404	2398
White	1912	2104	2077
Asian	492	466	486
Two or More Races	382	430	404
Not Reported	93	82	79
Pacific Islander	14	7	11
American Indian or Alaska Native	17	8	10

The patient satisfaction survey HLP sends to students after appointments, assists in monitoring student satisfaction. Below relevant questions and recommendations from the HLP survey:

- The provider was welcoming. At HLP 95% strongly agreed with this statement.
- The provider valued me as a patient. At HLP, 93% strongly agreed with this statement.
- I felt comfortable and safe in the building. 89.19% agreed with this statement.

Recommendations:

- Continue to monitor patient satisfaction to ensure students can provide feedback about inclusivity.
- Consider adding questions to the patient satisfaction survey to evaluate the climate within the student health areas.

Counseling and Psychological Services (CAPS) and Victim Empowerment Program (VEP) Equity data fiscal year 2019-2020

CAPS/VEP provides services to all registered students who paid the health fee. Initiatives around equity include students, staff, supervisors, and the university as a whole. As such, statistics in these four areas are discussed below, including their current statuses as well as future directions. Finally, the CAPS/VEP team recognizes that creating and sustaining a department that validates and values the many intersecting identity variables of students and employees is a journey and not a destination and is committed to ongoing learning and continued efforts to make the department a place that “feels different” to students and employees when it comes to a truly equitable environment.

Race, Ethnicity, and Gender

In terms of race, ethnicity, and gender, enrollment data at the university level is compared to utilization data at CAPS/VEP. Utilization percentage was higher than enrollment percentage among students who identify as Black/African American female (+2.84%), Hispanic female (+3.04%), Multi-Racial female (+3.07%), and White female (+3.73%). Utilization percentage was lower than enrollment percentage among students who identify as Hispanic males (-11.57%).

Age

In terms of age, enrollment data at the university level is compared to utilization data at CAPS/VEP. Utilization percentage was higher than enrollment percentage among students in the 22-25 years age range (+5.8%) and the 26-30 years age range (2.7%). The utilization percentage was lower for students under 18 years old (-4.1%) and over 39 years old (-3.9%).

Staff

In terms of intersecting identities, efforts have been made to have a team that is representative of the student body. As such, enrollment data at the university level is compared to the staff identity variable at CAPS/VEP. Staff representation was higher than enrollment representation for people identifying as Black female (+13.44%), Black male (+4.45%), Hispanic female (+5.92%), Multiracial female (+4.80%), White female (+6.38%), and White male (+4.62%). Staff representation was lower than enrollment representation for people identifying as Hispanic male (-24.39%) and as being part of the LGBTQ+ community (estimated -4% to -8%). [While FIU enrollment data does not capture the percentage of students who identify as part of the LGBTQ+ community, national statistics suggest that as many as 13% - 17% of college students fall into this category (<https://pnpi.org/lgbtq-students-in-higher-education/>, https://www.cdc.gov/healthyyouth/data/yrbs/2019_tables/students_by_sexual_identity.htm)]

4. Club and Intramural Athletics¹

The FIU Intramural Sports program (IM), through the commitment of the Division of Student Affairs Department of Recreation Services, fosters student development in important life skills such as leadership, competitiveness, teamwork, and sportsmanship. In support of the mission of the university and the Division of Student Affairs, Recreation Services promotes active, healthy lifestyles for FIU's vibrant and diverse community through quality participation opportunities, educational experiences, and support services. Through intramurals, students of all backgrounds are encouraged to practice a balanced lifestyle while developing habits that have a positive impact on their physical health and fitness.

Club and Intramural Athletics Services

To increase women's participation in 2019-2020, IM implemented specific marketing to target previous female and open participants to fill women's leagues. Additionally, IM adjusted the schedule based on previous feedback from participants in women's leagues so that the days and times that women's leagues were offered were adjusted to accommodate more women. Additionally, IM added more sports offerings that had leagues and divisions classified as Open - leagues where the gender composition of teams is not a factor for play. For future efforts to continue increasing female participation, there will be benchmarking on Intramural Sports and Sport Clubs programs to develop assessment tools that fall within NIRSA industry standards. Finally, more Open leagues will be offered to reduce barriers to female participation.

While the number of female and male teams dropped from 18-19 to 19-20 by -2.27% and -7.66% respectively, there was growth when it came to overall male and female unique participants by 20.01%. Additionally, open teams increased by 451.47% from 18-19 to 19-20. The changes in these numbers are attributed to the program intentionally reducing barriers to participation by eliminating the IM Sports Pass, and updating policies regarding jewelry and participant equipment, which historically has presented as barriers for female participation. Additionally, more open leagues were offered in 19-20 than in 18-19. Lastly, a new policy change was implemented that allowed Greek participants to play in not only the Greek-specific leagues but also in the Men's and Women's divisions. Covid-19 also impacted the overall team numbers in that some leagues and tournaments were canceled.

Women's Sport Clubs participants experienced another year of growth by 5.26%. While overall Sports club team numbers stayed the same from 2018-2019 to 2019-2020, the make-up of the organizations changed. Cycling, Golf, Mixed Martial Arts, Men's Volleyball, and Run clubs were eliminated, and Handball, Kendo, Scuba, Spikeball, and Tennis Clubs were added. The added clubs were all co-ed clubs, which contributed to the increase in female participants.

¹ Report on Sex Equity only.

Table 14. Intramural Athletics

	2017-2018			2018-2019			2019-2020		
IM Teams		Total	Change		Total	Change		Total	Change
Female	48	19.83%	33.33%	44	18.18%	-8.33%	43	17.77%	-2.27%
Male	132	54.55%	-31.61%	209	86.36%	58.33%	193	79.75%	-7.66%
Open	62	25.62%	-44.14%	68	28.10%	9.68%	375	154.96%	451.47%
Total	242		-28.82%	321		32.64%	611		90.34%
Unique IM Participants									
Female	492	30.79%	-30.80%	532	29.49%	8.13%	658	30.39%	23.68%
Male	1,106	69.21%	-35.74%	1,272	70.51%	15.01%	1,507	69.61%	18.47%
Total	1,598		-34.29%	1,804		12.89%	2,165		20.01%
IM Participants									
Female	883	33.25%	-21.23%	913	29.70%	3.40%	1,183	28.42%	29.57%
Male	1,773	66.75%	-42.02%	2,161	70.30%	21.88%	2,979	71.58%	37.85%
Total	2,656		-36.44%	3,074		15.74%	4,162		35.39%
IM Participations									
Female	2,425	30.84%	-24.29%	2,625	27.06%	8.25%	2,046	25.58%	-22.06%
Male	5,439	69.16%	-35.56%	7,077	72.94%	30.12%	5,953	74.42%	-15.88%
Total	7,864		-32.46%	9,702		23.37%	7,999		-17.55%
Sport Club Participants	17			23			23		
Female	115	31.00%	-35.03%	152	35.27%	32.17%	160	36.61%	5.26%
Male	256	69.00%	2.81%	279	64.73%	8.98%	277	63.39%	-0.72%
Total	371		-12.91%	431		16.17%	437		1.39%

Areas of Improvement

To increase overall participation in the program, policies, and procedures that can be perceived as barriers to participation will continue to be assessed. This effort will be accomplished through the IM Sports End of Year Participant Feedback Survey, as well as from feedback from staff members. Additionally, 2020-2021 is when the Esports program will be launched, which will include intramural sport offerings, as well as establishing an Esports sport club in both virtual and in-person spaces. With the addition of this program offering, the expectation is that not only overall participation and team numbers will increase, but more specifically unique participants will increase, by targeting and including a different demographic of students.

5. Student Financial Assistance

The Office of Financial Aid administers student financial aid in accordance with federal and state laws, regulations, and guidelines as well as institutional policies and procedures. The office is audited annually to ensure federal and state aid programs are properly managed and funds are timely disbursed to students. The 2019-2020 Federal Student Financial Aid Audit, the most recent audit, reported no findings for FIU.

In terms of benchmarking, this office compares its full-time, first time degree seeking undergraduates receiving aid against the national average derived for four-year public Title IV institutions. It strives to exceed 80% of the national average of students who receive federal, state, and institutional aid. The chart below illustrates the university's favorable comparison when applying the 80% threshold.

FIU's Golden Promise program, which began in the 2017-2018 Academic Year, guaranteeing incoming FTIC Florida Residents with a 0 EFC that 30 credits of tuition and fees would be covered with a combination of Federal, State, and Institutional Scholarships and Grants, continues. Renewal requires a 2.0 GPA and completion of 30 credits each academic year inclusive of Summer Term. Through the 2019-2020 academic year, 4,181 students were in the program.

Table 15. 2019-2020 Golden Promise Data

Ethnic Code	Gender			Total
	F	M	U	
AMIN	2	0	0	2
ASIAN	77	56	1	134
BLACK	423	221	0	644
CNRETH	4	1	0	5
HISPA	1967	1208	3	3178
NHISP	2	0	0	2
PACIF	1	0	0	1
TWOMORE	34	30	0	64
WHITE	91	59	1	151
Total	2601	1575	5	4181

6. Housing

The Department of Housing and Residential Life at FIU offers residential students a vibrant and diverse living and learning experience. Its diversity statement is as follows:

The diversity of our residential community takes many forms. It includes differences related to race, ethnicity, national origin, gender, socioeconomic status, sexual orientation, religion, age, and ability. We believe that any form of discrimination against any individual or group is a threat to the welfare of the entire community. We are guided by the belief that celebrating diversity enriches and empowers the lives of all people. Therefore, everyone who chooses to live in or visit our residential communities must understand that we will not tolerate any form of bigotry, harassment, intimidation, threat, or abuse, whether verbal or written, physical or psychological, direct or implied. Our residential communities are rich, alive, and dynamic environments that are designed to enable all individuals to develop and grow to their full potential. All members of the community are encouraged to live by these principles so that we can foster a successful learning environment.

The department is dedicated to recruiting, hiring, selecting, promoting, and retaining a competent and diverse team that reflects the cultural and personal diversity of the FIU and the Miami community.

Contained in this report is information regarding housing assignment information and residents, and an overview of departmental diversity initiatives and programs.

Housing Assignments Information and Demographics

Room assignments are made without regard to race, creed, color, sex, religion, national origin, age, disability, veterans’ or marital status, sexual orientation, gender identity, gender expression, or any other protected group status. FIU Housing makes the following provisions with regards to room assignments: students are assigned to spaces by gender unless they have selected gender-inclusive housing; accommodations are made for students with disabilities.

The department works closely with the Disability Resource Center (DRC) on accommodations for students living in on-campus housing. It also partners with the Fostering Panther Pride program to ensure FIU students who are classified as homeless or from foster homes have a place to live on-campus while completing their studies.

Table 16. Residential Students Demographics				
GENDER	FALL 2019		SPRING 2020	
	COUNT	PERCENT	COUNT	PERCENT
Females	1974	58.11%	1958	57.86%
Males	1351	39.77%	1360	40.19%
Non-Binary/Transgender	72	2.12%	66	1.95%

	FALL 2019		SPRING 2020	
	COUNT	PERCENT	COUNT	PERCENT

ETHNICITY	COUNT	PERCENT	COUNT	PERCENT
African American	1032	30.38%	1021	30.17%
Asian	152	4.47%	160	4.73%
Hispanic	1266	37.27%	1271	37.56%
Native American	7	0.21%	6	0.18%
Not Reported	168	4.95%	192	5.67%
Other	204	6.01%	189	5.59%
White	568	16.72%	545	16.11%

	FALL 2019		SPRING 2020	
AGE	COUNT	PERCENT	COUNT	PERCENT
15-17	94	2.77%	34	1.00%
18-20	2484	73.12%	2379	70.30%
21-25	775	22.81%	930	27.48%
26-30	36	1.06%	32	0.95%
31-over	8	0.24%	9	0.27%

	FALL 2019		SPRING 2020	
FOSTERING PANTHER PRIDE	COUNT	PERCENT OF POPULATION	COUNT	PERCENT OF POPULATION
	48	1.41%	80	2.36%

	FALL 2019		SPRING 2020	
STUDENTS REGISTERED WITH THE DRC	COUNT	PERCENT OF POPULATION	COUNT	PERCENT OF POPULATION
	157	4.62%	156	4.61%

Housing Diversity Initiatives and Highlights

Diversity and Inclusion Committee Events:

- **Dinner in the Dark** - Members of the community were assigned different disabilities that others live with daily. They were required to indulge in a meal and conversation while living with their assigned disability.
- **Baby Mall** - Members of the community learned about the different obstacles everyone faces when trying to achieve society's definition of success.
- **Inclusion Language Campaign** - Members of the community learned that words have power and why we all need to be more aware of the words we use daily.
- **HRL Inclusion & Diversity Logo** - Created a diversity and inclusion logo to assist in branding the committee.
- **Soles for Souls** - Members of the community donated shoes to bring awareness to communities who go without everyday necessities that protect them from illnesses.
- **Hot Topic Jeopardy Game** - Members of the community gathered for a game of jeopardy based solely on current events happening globally. It was a chance to educate while having a dialogue about issues directly or indirectly impacting the community.

Residential Curriculum:

The Department of Housing and Residential Life recognizes the essential role diversity plays in being worlds ahead. To this end, it intentionally develops communities where all members can integrate key academic, social, and recreational experiences that inform their diverse being.

During the 2019-2020 academic year, FIU Housing and Residential Life continued using a curricular approach across all residential communities. As defined in the learning goals below, diversity and equity were elements embedded in each of the goals.

Educational Priority:

As a result, of living on-campus students will be leaders serving the local and global communities.

Learning Goals:

- **Personal Development** - Residents will engage in self-discovery by exploring their identities, values, and purpose.
- **Community** - Residents will understand and appreciate living in a multi-cultural area where they will grow and communicate across differences, and work towards respect amongst each other.
- **Social Justice** - Residents will become aware of themselves by engaging in social discourse to create inclusive communities, advocate for equity, and immerse themselves in other cultures and belief systems.
- **Global Responsibility** - Residents will participate in a learning environment, where they will reflect on the challenges in all communities, gain skills to advocate for others, and engage globally.

Strategies:

Residential Life staff was charged with implementing a variety of strategies to meet learning outcomes associated with the above goals. Student employees engaged in structured international interactions to engage students around select scaffolded and sequenced topics around diversity as described below:

- **Personal Development** – individual identities and intersectionality
- **Community** – community identifies and multi-culturalism
- **Social Justice** – inclusivity and equity around diversity
- **Global Responsibility** – advocacy around diversity

Self-Assessment: Housing Assessment of Diversity Initiatives

Housing and Residential Life uses the Skyfactor Resident Satisfaction Survey to assess if students are having meaningful diverse interactions while living on campus. Its current overall score for the category of diverse interactions is a mean score of 5.29. The goal is to have a mean score of 5.5 or above. This is based on the following three (3) survey questions:

1. *To what degree has your on-campus housing experience helped you: Interact with residents who are different from you (i.e., race, gender, beliefs).* Achieved a mean score of 5.42.
2. *To what degree has your on-campus housing experience helped you: Understand other residents by putting yourself in their place.* Achieved a mean score of 5.16.
3. *To what degree has your on-campus housing experience helped you: Benefit from the interactions with residents who are different from you.* Achieved a mean Score of 5.30.

The assessment goal for the 2020-2021 report year is to achieve a 5.5 or above for each of these three questions. The action plan to achieve this is:

- prioritizing inclusivity and equity around diversity in our residential curriculum;
- creating programs and activities to raise awareness around issues of inclusivity and equity;
- a commitment to talking directly with students from marginalized populations about their experiences on campus and in the dorms and using the information to create more inclusive environments; and
- addressing behaviors around bias, hate, or intolerance promptly.

7. Student Employment

FIU offers a significant amount of employment opportunities for our students. A large portion of the employee population (approximately 30%) are students. A study in the FIU libraries has continued to demonstrate a strong correlation between on-campus jobs and graduation success.

The Career Ready program, developed by a multi-disciplinary council from Human Resources, Student Affairs, the Office of Academic and Career Success, the Office of Analysis and Information Management, and the Office of Alumni Affairs, offers convenient on-campus job opportunities to students, provides relevant job experience, and professional development at different levels, which will assist students once they graduate.

The Career Ready team has performed many different outreach and marketing activities and events to increase the structure and formalize student employment opportunities. The program collaborated with university departments and colleges by attending several student development-focused events and initiating conversations with student advisors for success. On-campus employment provides career preparation so that students can compete for well-paying jobs upon graduation. The events attended expanded knowledge about student employment and provided services for incoming freshmen, transfer students, and alumni support. Alignment of Career Ready in these events reduced duplications of effort and increased communication regarding internal and external job, internship, and apprenticeship opportunities. The Career Ready team met with several Deans and Colleges. They were able to inform Career and Talent Development about the dashboard for accountability to work in tandem with the Division of Human Resources efforts to place student employees as well as Federal Work-Study students into roles aligned with their respective majors or, at minimum, provide a substantive work experience with transferrable skills they can use in the workplace.

Other professional development feedback of students based on the professional opportunity, additional job codes were created to better categorize them and be able to prioritize the placement based on seniority. In addition to creating new job codes, Human Resources partnered with Academic and Career Success to create student badges and to place their students in a role that better aligned the employment opportunity with their majors. As a result, every college assigned teams that intentionally aligned their opportunities for their student employees and monitor student employment for the college.

The Career Ready team collaborated and attended the following events:

July 2019

- Career Ready Strategy/Metrics Meeting with Assistant Vice President, Academic & Student Affairs
- Wellness and Recreation Center Student Pay with Student Affairs
- Career Ready Student hiring training for Supervisors
- Chartwells University Relations Meeting
- DASA Internship Taskforce - Meeting with CTD and HR

- Career Ready/Post-Grad Course Meeting with Assistant Vice President, Academic & Student Affairs
- Career Council Meeting
- Career and Talent Resume Writing Session
- FIU Career Ready Program/Dashboard with Paden Goldsmith

August 2019

- Career Ready/Post-Grad Course Meeting with Assistant Vice President, Academic & Student Affairs
- Chartwell's Campus Recruiter Meeting
- Freshman Convocation

September 2019

- Chartwells Partnership: Career Ready Meeting
- FIU HR + Career Meeting for Recent Alumni Support with Career and Talent Development
- Career Bash BBC Campus
- FIU Fall Technical Career Fair
- FIU Fall All Majors Career Fair
- Post-Grad Metric with Assistant Vice President, Academic & Student Affairs

October 2019

- Student Engagement Fair 2019
- November 2019
- Post-Grad Meeting with Assistant Vice President, Academic & Student Affairs

January 2020

- FIU Freshman Student Orientation
- Meeting with CASE Advising and Career Ready Program

February 2020

- FIU STEMCon: Career & Next Steps Resource Fair
- University-Wide Post-Grad Updates Meeting with Assistant Vice President, Academic & Student Affairs
- FIU Technical Career Fair
- Mission 200- Jobs for Students with Chartwells and Felicia Townsend
- Event Protocol Training

March 2020

- Career Crash Course - Resume Station

April 2020

- Bender Virtual Disability Career Fair

The following two tables include the number of student employees at all FIU campuses in the 2010-2020 academic year, based on their gender and ethnicity group. Employment is either through Student Assistant or Federal Work-Study appointments.

Table 17. Total Number of Student Employees by Gender - All FIU Campuses

Gender	2019	2020
Female	2667	2088
Male	1944	1510
Total	4611	3598

Table 18. Total Number of Student Employees by Ethnicity Group - All FIU Campuses

Ethnicity Group	2019	2020
American Indian or Alaska Native	8	6
Asian	150	130
Black or African American	793	472
Hispanic/Latino	2788	1731
Not Reported	4442	789
Pacific Islander	2	2
Two or More Races	76	55
White	352	413
Total	4611	3598

Areas of Improvement

The team found an opportunity to develop manager training for individuals that supervise student employees so that they are better prepared to mentor them during their work experience at FIU. Giving students a structured environment with the necessary tools to assist with their professional development is instrumental to making them more employable with relevant work experience. This includes the need to develop a student specific performance evaluation instrument to provide structured feedback that was more meaningful, and job related.

8. Educational and Work Environment

On June 12, 2020, as communities across the nation spoke out against racial injustice and inequality, the Equity Action Initiative (EAI) was commissioned by President Rosenberg. The EAI was a call to action to help improve the climate for and reality of equality, dignity, inclusion, and belonging. The university renewed its commitment to play a key role in social justice and equal opportunity. A core advisory group was tasked to review options and initiatives that could help FIU reform and improve the approach to our work. They worked collaboratively and consulted widely - both inside and outside of FIU - on specific initiatives that would help reduce and eliminate disparities and inequities in our work environment. This group solicited advice, suggestions, position papers, data analysis, and evidence to include in their recommendations. They examined, considered, and presented initiatives focused on our community, our police, access to higher education, and FIU.

Florida International University values diversity, equity, and inclusion as integral to its mission as a student-centered public research university strongly focused on learning, research, entrepreneurship, innovation, and creativity so that its graduates are prepared to succeed in a global market. FIU embraces and strives to ensure that a diversity of cultures, races and ethnicities, genders, political and religious beliefs, physical and learning differences, sexual orientations, and identities are thriving on our campus and within our community.

FIU recognizes its responsibility to foster an open, welcoming, and inclusive environment of belonging. Students, faculty, staff, alumni, and our community of all backgrounds should be able to collaboratively learn and work. Diversity enriches the university community and is a driving force instrumental to institutional success.

FIU has a deep commitment to diversity, equity, and inclusion. It is committed to ensuring faculty and staff reflect the diversity of the local community and the student body. FIU commits to engaging in an ongoing and thoughtful dialogue about the changing realities of our increasingly interconnected world. FIU will continually strive to work together with its constituencies to address the challenges of the future in a way that removes barriers to success and promotes a culture of inclusivity, compassion, and mutual respect within the classroom, workplace, and in all aspects of life.

As part of the institutional diversity, equity, and inclusion goals, the following goal has been established with tactics and strategies toward making campus-wide improvements for FIU's educational and work environment.

INSTITUTIONAL LEARNING: Cultivate an inclusive and equitable campus climate, culture, and community. (Inclusive Excellence Training)

TACTICS:

- Creating a comprehensive institution-wide learning plan for the FIU community tailored and designed to focus on unconscious bias and cultural competence across the diversity spectrum (race, gender, 'differentiability', sexual orientation, religion, etc.)

- Incorporating symposia, lectures, book clubs, movie screenings, and focus groups are all designed to increase cultural competency and strengthen a sense of belonging across the enterprise.
- Creating DEI micro-badges/Micro-Credentials in support of continued learning and development of DEI competencies.

9. Personnel

Each student services area was reviewed and included personnel in their review of student services. As part of the institutional diversity, equity, and inclusion goal, the following goal has been established with tactics and strategies toward making campus-wide improvements that will improve student services.

POLICY, PRACTICE, PERFORMANCE MEASURES: Improve systems, policies, and procedures to facilitate diversity, inclusion, transparency, and accountability.

To achieve institutional learning, we will implement a university-wide system of tracking, assessment, and annual reporting regarding the completion of inclusive excellence training. We will support the establishment, as well as to measure the effectiveness, of affinity groups toward an inclusive campus climate.

TACTICS:

- Placing DEI Advocates in units across the enterprise.
- Introducing a diversity, equity, and inclusion competency in the performance evaluation process for managers.
- Incorporating professional development with recommended training noted on DEI.FIU.EDU website.
- Reviewing hiring practices and policies to identify barriers to hiring and promotion of underrepresented minorities.
- Reviewing retention policies and practices to identify systems with the potential to disadvantage underrepresented minorities in terminations and attrition including but not limited to the performance evaluation process.
- Creating and delivering DEI Micro-Credentialing- *free to faculty, staff, and students.*

PART IV. GENDER EQUITY IN INTERCOLLEGIATE ATHLETICS

Table 1. Sex Equity in Athletics Update

Element	Assessment	Area for improvement?
1. Sports offerings	FIU sponsors eleven Division I sports for women and six Division I sports for men. Currently, the university sponsors every women's sport with a championship offered by Conference USA as CUSA has added beach volleyball as a championship sponsored sport beginning in 2021-2022. In addition, the university has discontinued the men's indoor track program in 2020-2021. Equitable.	
2. Participation rates, male, and female, compared with full-time undergraduate enrollment	Again in 2019, the enrollment of female undergraduate students in 2019-2020 increased slightly from 57.02% to 57.21%, and the female student-athlete participation rate dropped from 53.20% to 51.64% in 2019-2020. A slight increase in the gap with a 5.57% difference. With the discontinuation of the men's indoor track program that gap should decrease in 2020-2021.	√
3. Availability of facilities, defined as locker room, practice, and competitive facilities	The Ocean Bank Convocation Center provides locker room facilities for women's and men's basketball (identical), women's and men's soccer (identical), volleyball, beach volleyball, and women's track & field. The department continues with the plans on an ongoing basis to improve facilities for our student-athletes. The new building was completed in January 2019 for a new home of the softball program. The building is adjacent to the softball stadium (first baseline) and women's short course golf area and has a locker room, lounge, coach's offices, a training room, and public restrooms. Although the building is a significant asset for the softball program our Title IX Plan for Improvement identifies the disparities that still exist with the softball vs. baseball facility. A renovation of the building that houses our tennis and golf teams was also completed in January 2019. All other programs train and compete with inequitable facilities.	√
4. Scholarship offerings for athletes	FIU provides the maximum NCAA permissible scholarships for each of the women's sports and the difference is within the allowable 1%. Equitable.	
5. Funds allocated for:		
a) the athletic program as a whole	Funds allocated for women's sports are comparable to that of their male counterparts. Both are provided with the necessary resources to compete in Conference USA and nationally. Equitable.	

b) administration	Funds allocated for administrators continue to be comparable. Equitable.	
c) travel and per diem allowances	Travel allocations are provided equitably. Per diem is allocated as per the Florida Statute. Travel mode and method is determined by the travel policy, but generally outside the state regardless of the sports program is by a commercial airline (with the exception, of football due to the number of participants), and travel within the state is usually by bus or on occasion by twelve passenger vans depending on the size of team or preference of the coach. The sports programs have funds allocated to ensure safety in travel and an equitable student-athlete experience. Equitable.	
d) recruitment	Funds allocated for recruiting are treated equitably among sports programs and line items in a budget can be adjusted taking into consideration differences that may fluctuate year to year. All programs have successfully recruited, regionally, nationally, and internationally. Equitable.	
e) comparable coaching	Experience and number of coaches available in women's programs are comparable to their male counterparts. Equitable.	
f) publicity and promotion	The marketing and promotion of the sports programs are accomplished through the website, media relations efforts, weekly stories and releases, and the video department that streams all non-televised home competitions of women's and men's soccer, volleyball, women's, and men's basketball, softball and baseball. Video programming Panther Talk features weekly shows including student-athletes across all 17 sports. Added Twitter accounts to ensure all sports are equitably represented. Materials for promotion (i.e., posters, schedule cards) are equitable among like sports. Equitable.	
g) other support costs	Student-Athlete development and life skills programming opportunities are provided for all sports programs equitably. All sports programs are assigned an operations coordinator to assist with the program including travel, team meals, recruiting logistics, etc. Equitable.	
6. Provision of equipment and supplies	Each sport is provided the equipment and supplies necessary to compete equitably. Budget determined by roster size, condition of current equipment, and replacement needs. Adjustments were made to the extent possible and accordingly. Results from experience surveys indicate student-athletes from all sports regardless of gender would want more practice and training gear. Efforts to enhance opportunities through the university's Adidas partnership will continue. Equitable.	
7. Scheduling of games and practice times	Teams that share facilities alternate or agree on a practice schedule annually. Regular practice schedules are secured each term to ensure continuity and student-athlete class	

	<p>schedule. Women's and men's basketball and volleyball are the sports that share a facility. In the fall, volleyball takes priority and, in the winter, /spring the basketball programs have a preference of practice times. All games are scheduled in an equitable manner between the coaching staff. Equitable.</p>	
<p>8. Opportunities to receive tutoring</p>	<p>An academic coordinator is assigned to each of the FIU athletic teams. A full-time SAAC staff member oversees a staff of approximately 54 tutors. These tutors are available to our student-athletes for entry-level courses to upper division courses required for undergraduate majors. All student-athletes have equitable access to schedule tutoring through their academic coordinator. Equitable.</p>	
<p>9. Compensation of coaches and tutors</p>	<p>Coaches are compensated equitably when compared to their Conference USA counterparts. Differences in pay between male and female coaches are driven by market value in that sport. All tutors, independent of assignments to students, teams, or gender are paid equivalently and are selected to work with our student-athlete population after a rigorous selection process. During the interview process, all potential tutors are reviewed by the SAAC Tutor Coordinator where they must meet the qualifications for their specific content area. Equitable.</p>	
<p>10. Medical and training services</p>	<p>Each sport is assigned a Certified Athletic Trainer (ATC) and certified strength and conditioning coach, and women's and men's teams have equal access to the training room facilities and ATC's. The university has a partnership with Baptist South Florida and provides second-to-none quality physicians and surgeons for all student-athlete medical needs. All student-athletes have equal access to treatment, referrals, rehabilitation, and any medical care needed. Equitable.</p>	
<p>11. Housing and dining facilities and services</p>	<p>Each student-athlete either lives in on-campus housing lives at home or receives an identical stipend for off-campus housing based on their scholarship. The students receive housing options on an equivalent basis. Students in on-campus housing receive equivalent meal plans based on scholarship level and those living off-campus receive an equivalent meal stipend based on their scholarship. Equitable.</p>	

Table 2. Sex Equity in Athletics - Areas for Improvement

Areas for improvement	Program for improvement	Timetable
Participation rates, male and female, compared with full-time undergraduate enrollment	Although good progress and efforts continue, the female participation rates are lower than female undergraduate enrollment. The enrollment of female undergraduate students from 2019-20 increased slightly from 57.02% to 57.21% and the female student-athlete participation rate decreased from 53.20% to 51.64% in 2019-2020. Although the COVID-19 pandemic hindered the ability to invite female walk-ons at the same rate and the concern will extend to next year, the gap with a 5.57% difference will be decreased in 2020-2021 with the discontinuation of the men's indoor track program.	FIU has discontinued the men's indoor track program effective spring 2020 which will also improve participation numbers for 2020-2021.
Significant differences exist between the baseball and softball facilities. For example, the baseball facility has an impressive façade and softball facility does not. The softball facility lacks concessions, box office, videoboard, suites, weight room, and indoor batting cage. Additionally, the batting cage, windscreens, and fencing need repairs.	<ul style="list-style-type: none"> Repair/replace fencing, windscreens, and outdoor batting cage to provide optimal conditions for practicing. Secure an architect to create a concept design plan and provide pricing estimate to create façade and entrance, build a concession stand, add videoboard, create indoor batting space and suite to enhance the softball facility. Design and build a new façade/entrance and concession area to enhance the entrance and amenities to the softball facility. Installation of videoboard display at the softball facility. Design and build an additional batting cage space (indoor) and suite for the softball program. 	Five-year plan with securing an Architect in 2021 to create a program plan with cost estimates for the enhancements to the softball facility.

Table 3. Student Athletes by Gender, 2019-20

	Male	Female	Total
Number	236	252	488
Percent of Total	48%	52%	100%

PART V. EMPLOYMENT REPRESENTATION

Areas of Highlights

For the academic year of July 2019-June 2020, FIU received rankings and accolades such as being ranked No. 43 in the Public National Universities category (No. 72 overall) out of 395 universities and No. 5 among public universities (No. 14 overall) in the Best Bang for the Buck in the Southeast U.S by the Washington Monthly Magazine College Rankings; ranked No. 3 among U.S. public universities that are 50 years old or younger by Times Higher Education (TH); and achieving honor roll by the Great Colleges to Work For® program. Since 2011, FIU has been recognized by the Great Colleges to Work For® Program. In its partnership with The Chronicle, ModernThink served as the survey, research, and analysis engine for Great Colleges for eleven years before assuming full responsibility for the program in 2019. They have surveyed over 1,000 colleges and universities through the Great Colleges program and have accumulated an unparalleled database of higher education benchmarking statistics and best practices.

In 2019, FIU achieved honor recognition in twelve out of twelve in the following categories:

1. Collaborative Governance
2. Compensation & Benefits
3. Confidence in Senior Leadership
4. Diversity
5. Facilities, Workspace & Security
6. Job Satisfaction
7. Professional/Career Development Programs
8. Respect and Appreciation
9. Supervisor/Department Chair Relationship
10. Work/Life Balance
11. Teaching Environment
12. Tenure Clarity and Process

FIU is committed to ensuring that each member of the university community shall be permitted to work or study in an environment free from any form of illegal discrimination, including race, color, sex (including gender, gender expression, gender identity, and sexual orientation), pregnancy, religion, age, disability, national origin, marital status, and veteran status. In accordance with this commitment, FIU offered training such as Title IX and Sexual Harassment, Title VII, Cultural Diversity, Diversity and Work Civility, and Cuddling with Consent.

(AWED) offers several STRIDE (Strategies and Tactics for Recruitment to Increase Diversity and Excellence) workshops concerning best practices for faculty hiring and tenure and promotion decisions. All workshops are facilitated by faculty members. The STRIDE committee is made up of faculty members from areas such as the College of Law, the Department of Physics, and the Department of Psychology who coordinate the STRIDE workshops each year. AWED offers the following STRIDE workshops:

- STRIDE HIRING/FACULTY RECRUITMENT WORKSHOP: Designed to provide background information and concrete advice about practices that make searches more successful (in producing diverse candidate pools and hiring candidates). Attendance is required once every three years for faculty serving on search committees.
- STRIDE DIVERSITY ADVOCATE WORKSHOP: One member of each search committee will be recommended by AWED to attend this advanced recruitment workshop.
- STRIDE HIRING LEADERS WORKSHOP (Deans and above): This is required for all upper-administration search committee members.

AWED requires the STRIDE Tenure and Promotion (T&P) Workshop for all College Tenure and Promotion Committee members, Department Chairs, and Deans. They must attend the T&P workshop in 2020-2021 and once every five years. This new requirement began in Fall 2020 and is part of the Tenure and Promotion guidelines. New committee members, department chairs, and deans should attend in their first year of appointment.

A. **Measure achievement of remedying underutilization of women and minorities**

In accordance with the university's Affirmation Action plan, the following table describes the previous Affirmative Action plan's eleven (11) goals achievement and the 2019-2020 goals for FIU as well as the good faith efforts the university made in those job groups where goals were established. Affirmative Action Program numerical placement goals have been established pursuant to 41 C.F.R. § 60-2.16 and § 741.45 and do not represent rigid and inflexible quotas, nor do they provide for preferential treatment on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status.

FIU is committed to achieving and sustaining faculty equity and diversity as an essential element of FIU's academic excellence. The Provost's strategic plan for inclusive excellence for faculty includes goals to continue FIU's momentum towards further diversifying the faculty in science, technology, engineering, and math (STEM), including increasing the number of women and underrepresented minorities in other fields in which they are underrepresented. This mission reflects FIU's commitment to amplifying the demographic diversity of its student population as a resource for increasing the diversity of scientists, scholars, and the workforce locally and nationally.

FIU's Division of Human Resources in collaboration with the Division of Diversity, Equity, and Inclusion strives to ensure that we attract, select, retain, and develop a diverse and talented workforce who will contribute to the university's mission and vision. In conformance with applicable law and university policy, FIU is an affirmative action/equal opportunity employer. The university undertakes affirmative action for underrepresented minorities and women, for persons with disabilities, and Vietnam-era veterans and disabled veterans. Affirmative actions include training programs, outreach efforts, and other positive steps to ensure equal employment opportunity. The university can strengthen initiatives for the recruitment, retention, and development of diverse faculty and staff.

FIU's Office to Advance Women, Equity, and Diversity is dedicated to the university's mission of inclusive excellence. AWED develops and manages all faculty programs to promote equity, diversity, and inclusion, including workshops to improve faculty hiring and promotion processes, faculty mentoring and interdisciplinary networking, and procedures to track progress towards inclusive excellence. The programs were developed using a combination of FIU funds as well as funding provided by a National Science Foundation ADVANCE PAID grant (\$600,000; 2011-2016) and an NSF ADVANCE Institutional Transformation grant (\$3.2M; 2016-present).

As placement opportunities became available, job openings were posted internally and externally, educational assistance programs were offered, employee referrals were encouraged, equal access to advancement opportunities from other job groups was ensured, and positions with diversity recruitment sources and state job services were listed, such as Career Source South Florida, DiversityJobs.com, Diverse: Issues in Higher Education, IMdiversity, and Women's Job List. Through these efforts, the university was able to make progress towards the achievement of three goals of four noted in the summary of 2018 Affirmative Action goal achievement below.

Summary of 2018 Goal Achievement		
Job Group Code- Name	Female	Minority
150- Faculty Leadership- Managerial	Not Achieved	
210- Faculty Leadership- Non-Managerial	Achieved	
220- Professor Tenured	Achieved	
230- Associate Professor Tenured	Not Achieved	Not Achieved
300- Athletics-Support Services	Substantially Achieved ²	
310-Technology Professionals	Achieved	
340- Senior Scientific & Research Professionals	Not Achieved	
414- Temporary Administrative Workers	Not Achieved	
500- Computer-Telecommunication Technicians	Substantially Achieved	
710- Protective Services	Not Achieved	
730- Service Workers	Achieved	

² "Substantially Achieved" means that there was no difference between the number of those we would have expected to place and the actual number of employee placements

B. Report race and sex representation

Table 1. Category Representation – Tenured Faculty

INDICATOR	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO*	NOT REPORTED	FEMALE	MALE	TOTAL
Number, Fall 2020	9	27	0	120	63	1	309	0	0	171	358	545
Number, Fall 2019	9	25	1	120	68	1	308	0	0	171	361	532
1YR Percentage Change	0.00%	8.00%	-100.00%	0.00%	-7.35%	0.00%	0.32%	N/A	N/A	0.00%	-0.83%	2.44%
Number, Fall 2015	8	27	2	104	53	0	282	0	0	151	341	492
5YR Percentage Change	12.50%	0.00%	-100.00%	15.38%	18.87%	N/A	9.57%	N/A	N/A	13.25%	4.99%	10.77%
Area for improvement, compared with national standards? (Check if yes)												

Source: IPEDS Fall Staff, IPEDS Human Resources Data.

IPEDS Human Resource, instructional Faculty only. Does not include Research or Public Service only Faculty.

IPEDS Human Resource aligned with 2010 Standard Occupational Category (SOC) System.

Table 2. Category Representation – Tenure-Track Faculty

INDICATOR	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO*	NOT REPORTED	FEMALE	MALE	TOTAL
Number, Fall 2020	35	11	2	30	26	0	98	1	0	88	115	203
Number, Fall 2019	33	11	2	26	16	0	89	0	0	78	99	177
1YR Percentage Change	6%	0%	0%	15%	63%	N/A	10%	N/A	N/A	13%	16%	15%
Number, Fall 2015	46	6	2	34	17	0	125	0	0	97	133	230
5YR Percentage Change	-24%	83%	0%	-12%	53%	N/A	-22%	N/A	N/A	-9%	-14%	-12%
Area for improvement, compared with national standards? (Check if yes)												

Source: IPEDS Fall Staff, IPEDS Human Resources Data.

IPEDS Human Resource instructional Faculty only. Does not include Research or Public Service only Faculty.

IPEDS Human Resource aligned with 2010 Standard Occupational Category (SOC) System.

This page intentionally left blank

The number of tenured faculty is a measure of faculty retention which depends on opportunities for professional development and having a supportive departmental and institutional climate. An increase in the number of tenured faculty means that the number of newly tenured faculty is greater than the number of tenured faculty leaving the institution. A decrease means the opposite: that the number of newly tenured faculty is less than those leaving the institution. The number of newly tenured faculty each year depends on both the number of faculty with successful applications and on the number of tenure-track faculty hired six years prior.

Table 1 of Part V shows that between 2019 and 2020, the number of tenured faculty remained relatively flat. The number of female tenured faculty remained the same at 171 while there was a net decrease of 3 (1%) in the number of male faculty from 532 to 529. Our records indicate that 14 women successfully applied for tenure the previous year (AY 2018-2019, so rank change effective Fall 2020) which may indicate that there was an equal number of tenured women leaving the institution. Similarly, there were 26 men tenured in AY 2018-2019, which means that 29 tenured men left FIU before Fall 2020.

Breakdown by race/ethnicity shows that there was an increase in the number of Black tenured faculty from 25 to 27 (8%) and in White faculty from 308 to 309 (less than 1%). There was one Black person (male) tenured in AY 2018-2019 so the increase indicates there was also a tenured faculty hired with tenure in this category. The decreases in tenured faculty occurred primarily in the number of Hispanic faculty, a total of 5, down to 63 from 68 (7%), with the only other category showing a loss being American Indian (AI)/Alaskan Native (AN) from 1 to 0 (100%). Five Hispanic faculty were tenured the year prior so there was a loss of another 10 tenured Hispanic faculty between 2019 and 2020. No AI/AN faculty were tenured in AY 2018-2019. The number of Asian faculty remained the same at 120, but as 10 were tenured the previous year, this indicates that another 10 left the institution as well.

These one-year differences contrast with the 5-year changes seen since 2015. There was a 5-year increase of 37 tenured faculty (8%) at FIU, from 492 in 2015 to 529 in 2020. This is an average increase of 9.25 faculty/year not seen during the reporting year when there was a decrease of 3. Twenty of the 37-person increase in tenured faculty were female (13%) and 17 (5%) were male. The largest increase in race/ethnicity in numbers was in White faculty (from 282 to 309; a change of 27, or 10%), with the next largest in number being Asian, up 16 (15%). There was a decrease in the number of Hispanic faculty over the past five years, from 69 to 63 (6 faculty or 9%) but note that almost all that change was in the past year (5 faculty). The number of NH/OPI over the five-year period remained steady at 1, as did the number of Black faculty at 27 (although there was a decrease of two from 2017-2019, there was an increase of 2 from 2019-2020). The largest percentage change, 100%, was the loss of the only two AI/AN tenured faculty over the five years.

The data show that FIU has done well in increasing the percentage of tenured female faculty and Asian faculty over the five-year period from 2015-2020. However, by the numbers, the largest increase was still in White faculty over the five years (27 of the 37). The small change in Faculty numbers in the reporting year of 2019-2020 makes it hard to look for trends, but the

increase of 2 Black faculty is encouraging given their small overall numbers, while the increase in Hispanic faculty in this timeframe is a positive change.

Increases in the number of tenure-track (TT) faculty are due to hiring new TT faculty at a rate higher than the losses from this category. Losses are due either to Faculty leaving the institution or to successfully being tenured. More information on the status and outcomes of tenure applicants is supplied in the previous section.

The data show that there was a marked increase in the total number of TT faculty in the reporting year of 26 faculty (15%) bringing the number to 203. As 40 faculty were successfully tenured starting in Fall 2020 (so left this cohort), that indicates that 66 new tenure-track faculty were hired. However, this is still 27 (-12%) below the number from five years ago (230).

Table 3. Category Representation – Non-Tenure-Earning Faculty or Faculty at Non-Tenure Granting Universities

INDICATOR	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO*	NOT REPORTED	FEMALE	MALE	TOTAL
Number, Fall 2020	49	55	4	42	202	0	305	9	0	355	311	666
Number, Fall 2019	47	49	3	42	203	0	294	9	0	335	312	647
1YR Percentage Change	4%	12%	33%	0%	0%	N/A	4%	0%	N/A	6%	0%	3%
Number, Fall 2015	34	41	1	30	135	0	265	4	0	270	240	510
5YR Percentage Change	44%	34%	300%	40%	50%	N/A	15%	125%	N/A	31%	30%	31%
Area for improvement, compared with national standards? (Check if yes)												

Source: IPEDS Fall Staff, IPEDS Human Resources Data.

IPEDS Human Resource Instructional Faculty only. Does not include Research or Public Service only Faculty.

IPEDS Human Resource aligned with 2010 Standard Occupational Category (SOC) System.

Table 4. Category Representation Executive/Administrative/ Managerial

INDICATOR	NRA	B	AI/AN	A	H	NH/OPI	W	≥ TWO*	NOT REPORTED	FEMALE	MALE	TOTAL
Number, Fall 2020	6	120	2	41	509	0	293	8	0	607	372	979
Number, Fall 2019	3	118	1	37	499	0	302	9	0	597	372	969
1YR Percentage Change	100%	2%	100%	11%	2%	N/A	-3%	-11%	N/A	2%	0%	1%
Number, Fall 2015	5	106	3	35	437	0	330	6	0	540	382	922
5YR Percentage Change	20%	13%	-33%	17%	16%	N/A	-11%	33%	N/A	12%	-3%	6%
Area for improvement, compared with national standards? (Check if yes)										✓		

Source: IPEDS Fall Staff, IPEDS Human Resources Data.

IPEDS Human Resource Instructional Faculty only. Does not include Research or Public Service only Faculty.

IPEDS Human Resource aligned with 2010 Standard Occupational Category (SOC) System.

This page intentionally left blank

Unlike TT faculty, non-tenure-track (NTT) faculty remain in the same category throughout their careers and so changes in the numbers solely reflect hires and departures.

Table 3 of Part V indicates that there was a small increase of 3% (19 faculty) in the total number of NTT faculty from 647 to 666 between 2019 and 2020. However, there was a much larger increase in the five-year numbers, up from 510, or 31%. There has been an effort to improve student success by hiring more full-time teaching-focused faculty over this period which could be responsible for this large increase. The effort has paid off, with increases in FIU's 4 and 6-year graduation rates indicating students are proceeding through their required curricula more quickly due to increased mastery of the material and therefore pass rates.

In the gender category, the five-year percentage changes are essentially the same for women and men at 31% (85 women) and 30% (71) men. The one-year is quite different, with an increase of 20 women (6%) up to 355, and a decrease of 1 man (<1%) to 311 total. Historically, women have occupied a larger percentage of NTT positions nationally, and this happens at FIU also, with little change in the overall distribution in 5 years: women were 54% of NTT faculty in 2015 and are 53% in 2020.

Looking at the changes in race/ethnicity over the 5-year time period, the largest numerical increase is in the number of Hispanic NTT faculty, with 67, a 50% increase. This is followed by White faculty at 40 (15%), and then non-resident alien with 15 (44%). There was an increase of 14 Black faculty which translates to 34%, and 12 Asian faculty (40%). For those reporting two or more races, the change is from 4 to 9, a 125% increase, and for AI/AN, the number increased from 1 to 4, a change of 300%. Note that although the percentage changes are large, this is because of the small overall numbers in these underrepresented categories.

Over the one-year reporting period, the largest numerical increase in a racial/ethnic category is for White faculty at 11, but that is only a 4% increase due to their large numbers (305). The next largest gain was in Black faculty at 6 from 49 to 55, a 12% increase which is higher than the yearly average over the five-year period. There were increases in faculty declaring Non-resident alien (2, 4%) and AI/AN (1, 33%), while there was no change in the numbers of Asian (42), two or more (9), or Native Hawaiian/Other Pacific Islander, which remains at 0. Although Hispanic faculty showed the largest 5-year numerical increase, there was a loss of one, from 203 to 202, for this year. There has been a recent increase of 2% in the number of female representation in Executive/Administrative/Managerial employees at FIU. In Fall 2020, females represented 62% of Executive/Administrative/Managerial employees, which was a slight increase from the 61.6% figure of the previous year.

All racial and ethnic groups experienced a percentage increase compared to Fall 2019; the only exception to this trend was in the White racial group, which saw a slight decrease of 3%, and the Two or More group with an 11% decrease from the previous year. The most significant percentage increases were among Non-resident aliens (100%) and those who identified as American Indian/Alaska Native (100%). These increases can be attributed to the university providing various opportunities for the executive/administrative/managerial career development for faculty, including the President's Leadership Program (PLP), the Educational Leadership Enhancement Program (ELEP), and the Leadership Education Advancement

Program (LEAP). LinkedIn Learning is also available and provides FIU faculty, staff and students access to an online video library that features business, software, technology, and creative skills. One of those in-house resources includes the FIU's Chair Advisory Council which is composed of all department chairs at FIU and promotes institutional awareness and shared mission and purpose while giving them a platform to discuss issues and ideas related to departmental governance and management. Our Office of Faculty Leadership and Success in collaboration with the Office of the General Counsel has also initiated a series of Chair Tools of the Trade workshops which address different aspects of the chair responsibilities. These workshops often employ engaging case study scenarios which guide chairs on how to appropriately mitigate conflict and promote compliance with university policies and procedures. The Office of Faculty Leadership and Success also initiate its inaugural Chair Leadership Development Program for the academic year 2020-2021.

C. Areas of Improvement/Achievement

As noted in the Affirmative Action plan for 2019 pursuant to 41 C.F.R. § 60-2.16 and § 741.45, the university has goals in the job groups listed below. The university has disability goal placements in all 46 job categories. These goals do not represent rigid and inflexible quotas, nor do they provide for preferential treatment on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status. Below, the 2019 goals are listed showing the job categories with female or minority placement goal placements.

2019 Goals		
Job Group Code- Name	Female	Minority³
150- Faculty Leadership- Managerial	Yes	
220- Professor Tenured	Yes	
230- Associate Professor Tenured	Yes	Yes
300- Athletics-Support Services	Yes	
500- Computer-Telecommunication Technicians	Yes	
730- Service Workers	Yes	

As part of the institutional diversity, equity, and inclusion goal, the following goal has been established with tactics and strategies toward improving our affirmative action goals.

REPRESENTATION: *Recruit, Retain, and develop a Diverse Community*

PRIORITY: Administrators (Administrator Level 3 and above)

To achieve this, we are researching and identifying barriers that impact the recruitment, promotion, and retention of underrepresented minority administrators toward increasing the acceleration of opportunities among the underrepresented minority leaders in the FIU population.

Toward their retention, we are focusing on the areas of:

- belonging (inclusive of mental health)
- affinity
- and rewards and recognition.

³ A goal in the minority section represents placement goals in the Black, Hispanic, Asian, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, Two or More Races.

ANTICIPATED OUTCOMES:

- Identifying barriers that impact the mobility of qualified underrepresented minority administrators.
- Create action plans to remedy and remove identified barriers to increased acceleration opportunities.
- Create a report identifying recommendations of efforts to effectively restructure to remove barriers noted.

TACTICS:

- Restore certification of interview pools.
- Establish search committee participation in completing STRIDE training for administrators.
- Ensure Diversity Advocates are participants in search committees.
- Create platforms to engage in listening sessions with underrepresented minority employees.
- Support the creation of relevant affinity groups.
- Create 'belonging' climate surveys and report findings and recommendations.
- Conduct qualitative and quantitative analysis of our current recruitment, promotion, and retention processes.
- Conduct listening sessions with underrepresented minority employees to understand their roles and challenges in promotional opportunities and their retention in current/existing opportunities.
- Compile report to recommend actions to be conducted by supervisors/managers.
- Establish voluntary mentoring programs connecting administrators with mentors from both, dominant groups and underrepresented minority groups who will advocate for participating underrepresented administrators.

PRIORITY: Underrepresented Minority Faculty

To achieve this, FIU is researching and identifying barriers that impact the recruitment and retention of underrepresented minority faculty as well as other historically underrepresented minorities – initially, with a focus on increasing these faculty among our population. Toward their retention, the focus will be on the areas of 1) belonging (inclusive of mental health); 2) affinity; 3) and rewards and recognition.

ANTICIPATED OUTCOMES:

- Identifying barriers that impact recruitment and retention of underrepresented minority faculty.
- Create action plans to remedy and remove identified barriers to increased retention of underrepresented minority faculty.
- Create a report identifying recommendations and remedies of efforts to effectively restructure to remove barriers noted.

TACTICS:

- Establish underrepresented minority faculty Associations and other affinity groups for underrepresented minorities to build affinity within their areas of interest.
- Create platforms to engage in listening sessions with underrepresented minority faculty.
- Create ‘belonging’ climate surveys and report findings and recommendations.
- Conduct qualitative and quantitative analysis of our current recruitment, retention, and promotion processes.

For faculty improvements, additional institutional context is provided here for a better understanding of the strategies used in developing faculty recruitment, hiring, and professional development programs. These initiatives were initially developed to address issues identified in an internal climate survey conducted in 2010 and the COACHE Faculty Satisfaction Survey in 2011. The COACHE survey, administered by the Harvard Graduate School of Education, assesses faculty satisfaction on 25 measures including appreciation, departmental collegiality, mentoring, work resources, leadership, governance, teaching, and benefits. It compares the responses of FIU faculty to those of faculty at five peer institutions selected by the participating institution and to a 110-member cohort of other participating institutions. An “area of strength” is one in which the institution scores first or second among the selected peer institutions and in the top 30% of the cohort institutions. An “area of concern” is one in which the institution scores fifth or sixth among the selected peer group and in the bottom 30% of the cohort.

The 2011 COACHE survey indicated a lack of mentoring as one of the faculty’s primary concerns. In response, Dr. Suzanna Rose, as part of the ADVANCE PAID grant, established the Faculty Mentor Program to serve the colleges housing the sciences, engineering, and social and behavioral sciences. Subsequently, the 2014 COACHE survey identified faculty mentoring as an area of strength. This program has since been extended to all faculty in all colleges. The NSF-funded PAID project continued to have a positive impact. By 2015, women represented 18% of tenure-track STEM positions, an increase of 7% over five years. The FIU PAID activities were institutionalized in 2016 with the establishment of the Office to Advance Women, Equity and Diversity (AWED) and the appointment of Dr. Suzanna Rose as Assoc. Provost as part of the Office of the Provost, with substantial funding being provided by Academic Affairs to fund this unit.

Since 2017, AWED program offerings constitute the major institutional interventions at FIU concerning faculty professional development. Improvements were noted in previous areas of concern such as faculty mentoring, research support, and hiring according to the 2017 COACHE faculty satisfaction survey, but also indicated two areas of concern: tenure policies and tenure clarity. AWED added multiple workshops focusing on tenure and promotion strategies beginning in 2018. Additional interventions concerning tenure policies began in 2019 with the establishment of the Office for Faculty Leadership and Success (OFLS), which also is within the Provost’s Office. The 2020 COACHE survey, administered in February 2020 just before the pandemic shutdown, indicated that lack of clarity about tenure procedures and criteria was no longer a faculty concern.

FIU ADVANCE's initiatives are intended to create a faculty-based social system that acts proactively to enhance a culture of inclusion for all faculty at FIU as well as to advance women and underrepresented minority faculty, particularly within STEM and Social and Behavioral Sciences (SBS). Based on the success of the first NSF PAID grant, it was determined that faculty participation in and endorsement of inclusive excellence programs were the keys to making change at FIU. Therefore, the plan is to continue this largely grassroots approach by engaging faculty university-wide in AWED programming. New programs were also developed, such as the Bystander Leadership program, to meet the needs of faculty who indicated they needed more skills to implement best practices.

The reporting year, AY 2019-2020, was Year 4 of this 5-year grant. Due to the pandemic, the Bystander Leadership program was suspended for Spring 2020, and all training workshops were moved to live virtual settings via Zoom. However, the type and number of workshops were also expanded in this period as reported below.

Faculty Recruitment and Hiring Programs

To increase the number of women and underrepresented minority faculty at FIU, STRIDE for Hiring training is required of all faculty within three years of serving on a hiring committee. The pilot program was launched in 2011 for the STEM fields and then expanded to the entire university. Additional training for one member of selected Faculty search committees designated as a Diversity Advocate was implemented starting in 2018 and was expanded to all TT searches in 2019-2020. These are further discussed below.

STRIDE for Hiring Workshops: The STRIDE training was developed using evidence-based practices developed at the University of Michigan and educates faculty about best practices to increase diversity in the faculty and address the issue of gender and race bias in hiring. These two-hour workshops, which are updated each academic year, cover issues such as implicit bias that can adversely affect the evaluation of applications from underrepresented minorities and women candidates and provides methods and practices such as the use of diversity statements and evaluation rubrics to help committees equitably assess and interview faculty candidates.

Impact: There have been over 700 unique STRIDE participants to date. STRIDE workshops were extremely well received by attendees with 87% of participants rating them as effective in helping them understand the benefits of having a diverse faculty, the role of stereotypes in career advancement, and in finding solutions for these issues.

Diversity Advocate Workshops: One member of each faculty hiring committee attends additional training on effective recruiting and evaluation practices for diverse candidates such as effective job ad writing and how to develop diverse pools, and acts as the point person on the search to ensure effective and equitable search practices are used.

STRIDE for Hiring Leaders Workshop: This is like the STRIDE for Hiring Faculty workshop but is tailored for hires into leadership positions and is required for all upper-administration search committee members.

Diversity Mentor Professorships (DMP): The DMP program is a special initiative to recruit excellent research scientists with a history and commitment to the mentorship of women students and students from domestic underrepresented minority populations. Four faculty lines were committed to the DMP program in support of FIU ADVANCE, two in the Sciences and two in Engineering.

Impact: In the Summer of 2020, eight faculty lines for any area were promised by the Provost's Office specifically to increase the number of Black faculty by attracting them to apply for Diversity Mentor Professorships – these positions use evidence of ability to mentor diverse students and women as one hiring criterion. The result from this initiative will be in next year's report.

These programs have resulted in positive outcomes previously that provide evidence for their effectiveness since implementation and have continued to play a role in the reporting period. In 2011, women constituted 11% of tenure-track faculty in STEM and 38% of social and behavioral science faculty (SBS); the fields in which the pilot program was deployed initially. By 2020, tenured and tenure-track women represented 20% of the STEM faculty and 40% of the SBS faculty, and 35% of the faculty overall. STEM women of color also increased from 1.5% to 2.5%.

FIU also was able to meet its goal to increase the representation of women and underrepresented minority faculty overall: From 2015 to 2020, all (tenured, tenure-track, and non-tenure-track) Hispanic faculty increased from 18% (N=221) to 21% (N=291) as a percentage of total faculty, and women faculty from 42% (N=518) to 44% (N=614). However, FIU's Black faculty representation has remained at 5% for tenured and 8% for NTT for the same period. This is an area for improvement addressed below.

Faculty Professional Development and Retention Programs:

Programs to retain faculty can be broken down into three major areas as shown below. AWED has developed and administers programs to address each of these three areas.

1. Professional development opportunities to enhance faculty success in the areas of research (for TT faculty), teaching, and service. This means ensuring that all faculty have equal access to resources and opportunities such as appropriate mentoring, high-value service assignments, and training in effective teaching. Programs that address this area include:

Faculty Mentor Program: The FIU Faculty Mentor Program (FMP) is in its tenth successful year. The program is now offered to all faculty ranks, including tenure-line, research, clinical, and instructors. FMP includes one-on-one mentoring, mentor training, networking events, and structured skills-training presentations related to enhancing faculty productivity. Faculty are paired with faculty from different, but related departments, to provide a broad range of experience and opportunities for professional collaborations. The program directly addresses skills and networking essential to faculty success, thus enhancing retention. Mentoring is particularly essential for women and underrepresented minority faculty, who are often outside of the informal informational collegial networks in academia.

Impact: Overall, the FMP has offered deep learning and mentoring opportunities to more than 550 unique participants. In the 2017 Harvard COACHE survey, mentoring was one of FIU's areas of strength, meaning FIU scored in the top 30% of the cohort (112 partners) and scored first or second among a selected group of five comparison institutions. Since the program began in 2011-2012, faculty satisfaction with mentoring at FIU increased substantially and has exceeded that of peer cohorts on the last three Harvard COACHE surveys (2014, 2017, 2020).

Chairs' Leadership Workshops: In conjunction with the Office for Faculty Leadership and Success (OFLS), this program offers leadership training that many faculty members might never formally receive as they become chairs of departments. This helps not only the faculty participating in the program but those in their departments who benefit from having leaders trained in faculty development and success.

2. Ensuring appropriate and equitable annual and tenure and promotion evaluations. Faculty cannot be retained if they are not provided fair and accurate annual evaluations, and equitable tenure and promotion evaluations. An area of focus is on how service is assigned, evaluated, and rewarded as women and underrepresented minorities are often overlooked for high prestige committees, and are also sought after as mentors by female and underrepresented minority students. This type of mentoring is often informal, invisible to others, and unrewarded. The following programs were instituted to address these concerns:

STRIDE Tenure and Promotion (T&P) Workshops: These workshops were developed to recruit, retain, and promote more women and minority faculty at FIU. This training was partially implemented in 2018-2019 and is now (2020-2021) required for all College T&P Committee members, Department Chairs, and Deans every five years. New committee members, department chairs, and deans should attend in their first year of appointment. Topics covered include implicit bias, stereotype threat, bias in student evaluations of teaching, types, and amounts of service, and the cumulative effects on career progression of women and underrepresented minority faculty. Best practices in evaluating Faculty tenure and promotion application files are presented, including the use of rubrics tailored to ensure that a faculty member's annual assignment is considered. Chairs are asked to pay special attention to service assignments and recognition for female and underrepresented minority faculty for the annual evaluations.

Policy development in collaboration with policy leaders: AWED engages regularly in reviewing FIU's policies and procedures to ensure the intended inclusive excellence. As part of this initiative, the university T&P Manual was updated with the work beginning in 2019 to ensure best practices for equitable evaluation are followed by all units, including so that faculty efforts related to values of diversity, equity, and inclusion will be recognized in the tenure and promotion process as valid and valuable academic contributions. During the reporting year, all departments were required to develop clear guidelines for tenure and promotion as part of their department policies. The new university T&P manual takes effect in Fall 2021.

Salary Equity program: AWED contributes (limited) funding to colleges as a cost-share arrangement to correct salary inequities based on gender, race, and/or compression. Sixteen

(16) salary adjustments were made in 2019-2020, including adjustments for underrepresented minority faculty.

3. Providing a supportive and inclusive working environment; this is especially important at the departmental level but applies across the university.

College and Departmental Diversity, Equity, and Inclusion (DEI) Plans: These plans are guided by two key goals: to increase the representation of faculty from historically underrepresented groups such as women in STEM and African American and Hispanic American Faculty in all fields; and to enhance the institutional climate to attract and retain women and underrepresented groups at the faculty and doctoral student level. Certain aspects of FIU ADVANCE were required to be in departmental plans, including participation in the Bystander Leadership Program, STRIDE hiring workshops, and the Diversity Advocate Program. Departments also may choose from among 60 DEI actions and metrics provided by AWED. The actions and metrics include areas such as hiring, retention, and departmental climate. Examples are “the number of guest seminar speakers from underrepresented groups or talks related to DEI issues.” Each year, departments choose which goals to pursue and are provided with a report form to fill out at the end of the academic year. These completed reports are submitted to AWED and feedback on each outcome is provided either by AWED or the appropriate College Equity Advisor (see below).

Equity Advisor Program: Deans of six colleges have agreed to provide one course release annually or summer supplemental funding for an equity advisor jointly selected by the Dean and AWED that participates in STRIDE, Bystander, and other AWED training programs. Embedded within their respective colleges, Equity Advisors (EAs) are a resource for helping departments develop, implement, and track progress on their diversity plans and work with AWED and College leadership concerning policies and procedures related to diversity and equity efforts.

Microclimate Project: The Microclimate Project is designed as both an ADVANCE program and as a research project to explore the complexity of how multi-ethnic cultural climates within FIU STEM departments affect the recruitment and advancement of women in STEM, particularly Hispanic-American and African American women faculty. The term “microclimate” refers to local social climates within a department that may differ from the larger organizational climate. The university is specifically interested in the intersection of nationality and gender/race norms and behaviors. Analysis of this project is ongoing.

Bystander Leadership Program: The Bystander Leadership program is the signature program of FIU ADVANCE implemented to address departmental and institutional climate. It was designed as an experiential, interactive, behavioral skills training program for faculty. It was developed, pilot-tested, and conducted as both a research project (Years 2-3) and as an embodied learning program for STEM and SBS Faculty (Years 2-5). This program is intended to move faculty participants from “insight” to “action” to address observed or anticipated instances of gender and race bias and discrimination among faculty. The program raises awareness about the interplay between power, privilege, and bias often experienced by women

and minorities. It also provides practice in using a toolkit of intervention responses and actions in response to situations of bias. The program is intended to develop a social system at FIU that supports and institutionalizes positive change among faculty in three key areas: (1) demonstrating greater appreciation for diversity and a reduction in prejudicial attitudes; (2) greater knowledge of and confidence in using prosocial intervention skills and strategies; and (3) increasing diversity-affirming behaviors.

Impact: As of March 2020, 343 faculty (160 women and 182 men) and 11 guests from other universities participated in one of 17 workshops offered since 2017. Preliminary results comparing a pre-test with the results from a three-month follow-up survey indicated that the Bystander group showed significant changes compared to the control group in terms of self-reported items including awareness of subtle gender/ethnicity bias in one's environment, awareness of gender/ethnicity bias in one's discipline; confidence in being able to enact gender/ethnic equity interventions; and confidence in engaging in such actions regularly. Extensive comments in response to open-ended questions included on the three-month follow-up survey also showed a positive effect: "I think ALL faculty would benefit from this kind of training program to help them understand various biases." "More than one person [in my department] has participated in the bystander training program which I believe has led to a very responsibly written diversity plan."

AWED Theater: This is an FIU-branded theater unit under the direction of Creative Director Jeffrey Steiger, who also has written original scripts for AWED Theater and the Bystander program as part of his commitment to FIU ADVANCE. These scenarios showcase how subtle biases manifest in typical academic situations such as tenure and promotion meetings. The productions may be scheduled by other universities and professional associations.

Process and metrics: To document the achievements of the FIU ADVANCE programs, multiple metrics and processes are in place: (1) before the project began, a baseline of the demographics of FIU's faculty was established as a data toolkit that has been monitored and updated annually with special attention to women of color. (2) During the project, the number of events, workshops, and activities and their attendance has been documented. Most of the events have been promptly evaluated by participant feedback surveys. (3) Since 2011, FIU has participated in the Harvard COACHE faculty satisfaction survey conducted once every three years. The COACHE survey has been used to guide and assess the impact of institutional interventions towards inclusive excellence.

Overall, as shown in Figure 1, the 2020 COACHE survey (pre-COVID-19) showed major gains in faculty satisfaction that largely are attributed to the activities of AWED and OFLS, which work collaboratively:

- FIU had nineteen areas of strength and only one area of concern (divisional leadership) based on responses by 46% of the faculty. See Figure 2. Underrepresented minority faculty satisfaction was in the top 30% of the cohort on 23 of 25 measures and women faculty satisfaction similarly was high on 20 of 25 measures.

- This was a dramatic improvement over the 2017 COACHE survey that identified only five areas of strength along with two of concern (tenure clarity and tenure policies).
- Women and faculty of color also reported being very satisfied, as shown in Figure 3.
 - Underrepresented Minority Faculty (URMs, e.g., Latinx and Black) faculty satisfaction scores were in the top 30% of the cohort of 110 institutions on 23 of 25 measures.
 - Women Faculty satisfaction scores were in the top 30 % of the cohort of 110 on 20 of 25 measures.

Figure 1. FIU COACHE Faculty Satisfaction Survey Results: 2017 and 2020

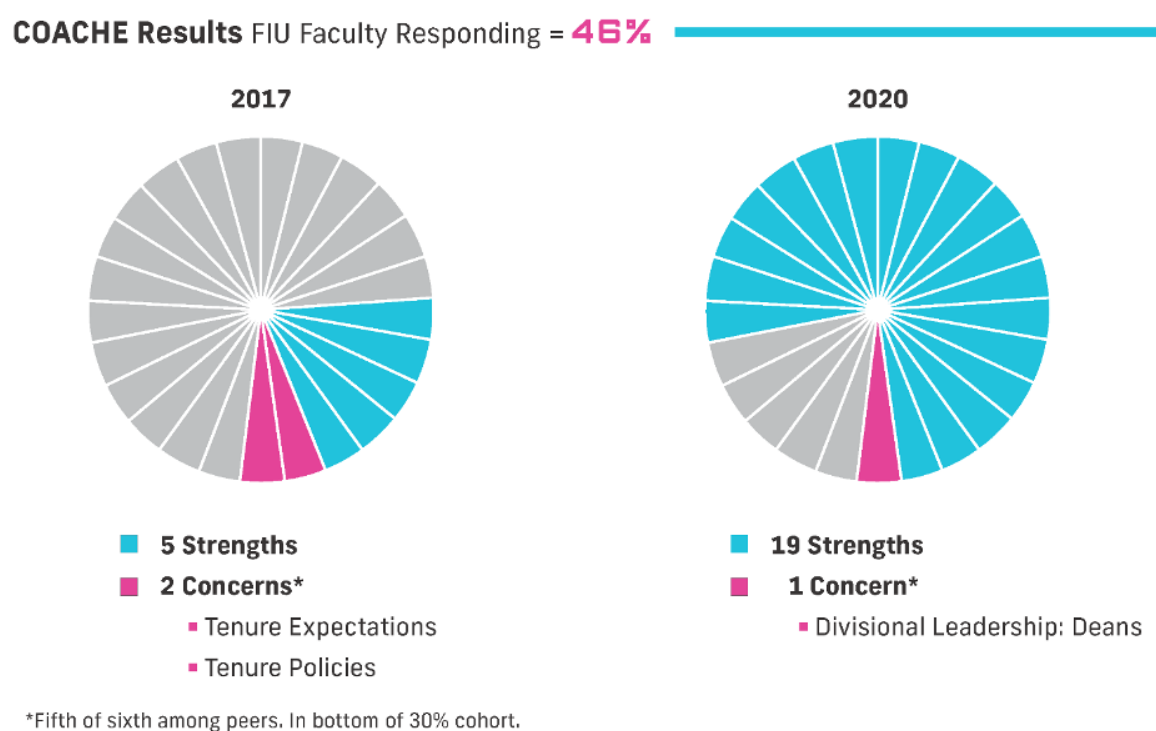


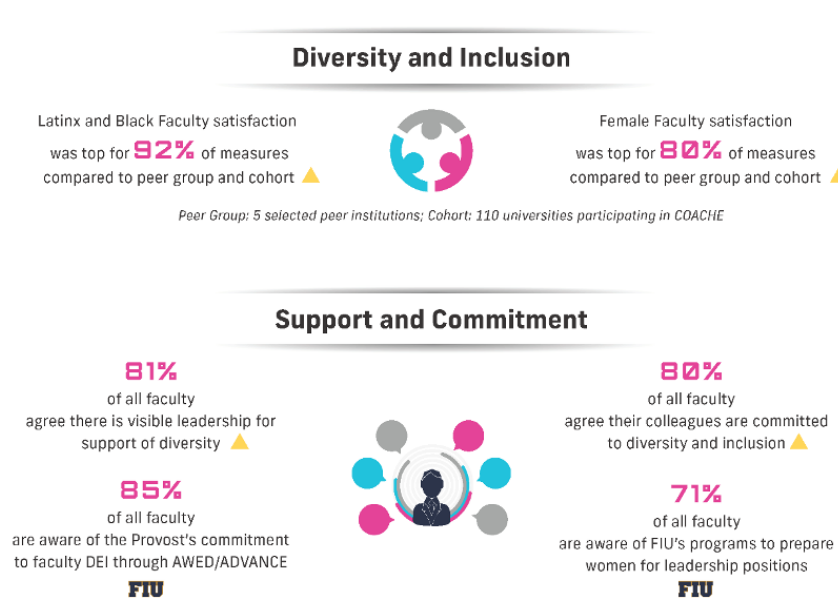
Figure 2. Areas of strength and concern, FIU COACHE survey, 2017 vs. 2020.

2016-2017 Areas of Strength	2019-2020 Areas of Strength
<ul style="list-style-type: none"> • Collaboration • Leadership: Senior • Mentoring • Nature of Work: Service • Personal and Family Policies 	<ul style="list-style-type: none"> • Appreciation and Recognition • Collaboration • Departmental Collegiality • Departmental Engagement • Facilities and Work Resources • Governance: Adaptability • Governance: Productivity • Governance: Shared Sense of Purpose

	<ul style="list-style-type: none"> • Governance: Trust • Governance: Understanding the Issue at Hand • Health and Retirement Benefits • Interdisciplinary Work • Leadership: Departmental • Leadership: Faculty • Leadership: Senior • Mentoring • Nature of Work: Service • Nature of Work: Teaching • Personal and Family Policies
--	---

2016-2017 Areas of Concern	2019-2020 Areas of Concern
<ul style="list-style-type: none"> • Tenure Expectations: Clarity • Tenure Policies 	<ul style="list-style-type: none"> • Divisional Leadership

Figure 3. 2020 FIU COACHE Faculty Satisfaction Survey Results: D&I



How metrics were leveraged: Institutional data concerning the percentage of women in each department targeted by the ADVANCE grant (STEM, SBS) were used annually to assess progress. There was little change in the number of women in STEM from 2016-2020. This caused a reassessment of the STRIDE hiring workshops and ultimately led to the development of new initiatives such as the Diversity Advocate training, STRIDE for T&P Committees, Bystander Leadership, and STRIDE for Leaders.

D. Protected-class Representation in the Tenure Process

Table 5. Protected-Class Representation in the Tenure Process, 2019-2020					
Sex, Race/Ethnicity	Applied	Withdrawn	Denied	Deferred	Nominated
MALES					
American Indian or Alaskan Native				1	
Asian	4				4
Black or African American					
Hispanic	1				1
Native Hawaiian/Other Pacific					
Two or More Races					
White	8		1		7
Other, Not Reported					
Total Male (Include Other, Not Reported)	13 (100%)	0	1 (8%)	1	12 (92%)
FEMALES					
American Indian or Alaskan Native					
Asian	5		1		4
Black or African American					
Hispanic	1				1
Native Hawaiian/Other Pacific					
Two or More Races					
White	13	2	2		9
Other, Not Reported					
Total Female (Number and Percent) (Include Other, Not Reported)	19 (100%)	2 (11%)	3 (16%)	0	14 (74%)
GRAND TOTAL	32	2 (6%)	4 (13%)	1 (3%)	26 (81%)

LEGEND:

APPLIED: Faculty whose names have been submitted for tenure review. Sum of Withdrawn, Denied, and Nominated (or provide explanation).

WITHDRAWN: Faculty who withdrew from tenure consideration after applying for review.

DENIED: Faculty for whom tenure was denied during the review process.

NOMINATED: Faculty for whom tenure is being recommended by the University

For the 2019-2020 AY, a total of 32 tenure-track faculty applied for tenure as shown in Part V, Section B. Table 1. Twenty-six (81%) were successfully tenured, two (6%) withdrew their applications, one (3%) deferred to the following year, and four (6%) had their applications

denied at some point in the process. The person who deferred is not included in the 32 applicants.

(1) Disparities related to race: By far the largest racial group to apply were White faculty, at 66% of the total (21 of 32) although they were only 44% (89/177) of the tenure-track pool in 2019. However, their success rate was the lowest at 76% (16 out of 21). 89% of the Asian faculty (8 out of 9) had successful applications, and both Hispanic faculty who applied were granted tenure. The candidate who deferred is AI/AN, and no Black faculty applied for tenure in the reporting year. Because of the small numbers of non-White faculty relative to any other racial/ethnic group, nothing can be concluded from these data regarding the presence of bias or barriers. There are likely large fluctuations in the percentage of successful underrepresented minority applicants as the outcome of one application (of only a few/year) will have an outsize effect.

(2) Disparities related to gender: In terms of gender, however, there may be real differences in success rates. Although there were more female applicants than males, their success rates were lower. While 92% (12/13) of the male candidates were granted tenure, only 74% (14/19) of the female candidates were. Two White women and one (1) Asian woman were denied tenure, and both the withdrawn applications were those of White women. Although much research already shows that female faculty have been disproportionately affected by the pandemic, these applications were submitted in Fall 2019 before it, so that cannot be the explanation for the lower success rate of women applying for tenure compared to men.

The university's recent implementation of bias training for chairs, deans, and college tenure and promotion committees to assist in improving the disparate tenure outcomes for different genders and races, are anticipated to diminish in the future.

University guidelines for equitable assignments for instructional faculty: Text below is from the Florida International University Board of Trustees and The United Faculty of Florida-FIU Collective Bargaining Agreement 2018-2021, pp. 57-58:

(4) Equitable Opportunity. *Each employee shall be given assignments that provide equitable opportunities, in relation to other employees in the same department/unit, to meet the required criteria for tenure, promotion, successive fixed multi-year appointments, and merit salary increases.*

1. (A) *For the purpose of applying this principle to promotion, assignments shall be considered over the entire period since the original appointment or since the last promotion, not solely over the period of a single annual assignment. The period under consideration at this University shall not be less than four years.*
2. (B) *For the purpose of applying this principle to tenure, assignments shall be considered over the entire period of tenure-earning service and not solely over the period of a single annual assignment.*
3. (C) *If it is determined that an employee was not provided an equitable opportunity for tenure, as described in this section, the employee may be awarded an additional period of employment requiring the University to provide the equitable opportunity as described herein. In ensuing assignments, the Provost or designee must enforce the decision regarding equitable opportunity.*

E. Promotion and Tenure Committee Composition

Table 6: Promotion and Tenure Committee Composition, AY 2019-2020																		
Type of Committee	Black or African American		American Indian/Alaskan Native		Asian		Native Hawaiian or Other Pacific Islander		Hispanic		Two or More Races		White		Other, Not Reported		Total including Other, Not Reported	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
University Committee																	0	0
College of Communication, Architecture, & the Arts					1				2				1	4			4	4
Architecture													3	1			8	3
Journalism & Media													3	2			7	4
College of Engineering and Computing	1				3										2	1	6	1
Civil & Environmental Engineering			1		6	2			1				3	1			11	3
School of Computing & Information Sciences	1				11				2				6	2			20	2
School of Construction, Infrastructure, and Sustainability													1				1	0

This page intentionally left blank

The data includes the composition of the College-level Tenure and Promotion (T&P) committees for all Colleges that award tenure. All but one of those, the College of Law, had tenure applicants in 2019-2020. The demographics of the tenured faculty in each department that had tenure applicants are also reported, as these are the faculty that vote on tenure decisions. There are no department-level T&P committees. Additionally, the School of Hospitality Management and Tourism and the College of Law have no departments. For Law, all tenured faculty serve as the College-level Committee.

College-level Committees: Of the 92 faculty who served on college-level committees in AY 2019-2020, 73% were male and 27% were female. Men were the most represented compared to their percentage of all tenured faculty (68%) and the most represented compared to tenure-track faculty (57%). This is an area that needs improvement.

For race/ethnicity, Whites and Hispanics are the groups most represented compared to all tenured faculty on the College committees with 62% of the committee being White vs. 58% of the tenured faculty and 16% being Hispanic vs. 12% of the tenured faculty. The disparity increases with comparison to the tenure-track White faculty which are at 48%. The representation of Black faculty on the committees is equal to their representation among tenured faculty at 5% and Asians are underrepresented at 14% vs. 23%. The differences in these categories when compared to the tenure-track faculty change not all for Black faculty, and minimally for Asian faculty (15%).

College-level T&P committees reflect more representation of men and White faculty when comparing their percentages on the committees to the available pool of tenured faculty able to serve. As service on these committees is highly valued and thus considered an asset to career development, an effort must be made to ensure equitable access to all eligible Faculty moving forward.

Department Committees: As noted above, these data consist of all tenured Faculty in departments that had tenure candidates in 2019-2020, these are the faculty eligible to vote on T&P applications. As these are a subset of all tenured faculty, the percentages by gender are similar (within 3%) and most categories of race are as well. The exceptions are Asians, who are underrepresented compared to all tenured faculty (17% vs. 23%), and Hispanics, who are overrepresented (17% vs. 12%). These are likely due to differences in representation between different fields. For example, it's well documented that women are underrepresented in STEM fields and Asians are the most represented in Engineering fields.

This page intentionally left blank

PART VI. OTHER REQUIREMENTS

A. Budgetary Incentive Plan

FIU is committed to allocating funds to recruit and retain a diverse workforce and student population. In July 2020, the President established the Division of Diversity, Equity, and Inclusion as recommended in the Equity Action Initiative (EAI). The creation of this division is outside of the reporting academic period, but it is important to note the creation in this equity report. President Rosenberg created the EAI to identify issues of systemic racism, bias, and inequity at FIU and provide actionable steps to eradicate them. That work evolved into the Division of Diversity, Equity, and Inclusion. This division is supported by a budget and works with every unit within the university to identify and improve diversity, equity, inclusion, and belong.

Within the Division of Academic and Student Affairs, the Office of Social Justice and Inclusion was established to work with students to empower social change; advocate for diversity and inclusion; educate for justice and equity; and act with empathy and impact. This division offers programs and resources such as Pride Center, the Women's Center, Male Mentoring Initiative, Fundamentals of Social Justice badge, Inclusive Language Guide, and scholarships.

The Office to Advance Women, Equity and Diversity (AWED) aims to achieve and sustain faculty equity and diversity as an essential element of FIU's academic excellence. AWED provides stipends to 10-12 faculty members to conduct faculty workshops on best practices in hiring as part of the STRIDE program. This includes bystander leadership facilitators. FIU's Diversity Mentor Professor Program is a special initiative to recruit multiple excellent STEM faculty to FIU who have a history of and commitment to the mentorship of women and underrepresented minority students in STEM, particularly Hispanic-American and African American students. Diversity Mentor Professors participate in FIU's NSF-funded ADVANCE Institutional Transformation Projects that focus on increasing faculty diversity and inclusion, mentoring, advocacy, and leadership activities. Two faculty members were designated as Diversity Mentor Professors as part of this program during Fall 2018.

Through the annual FIU Service and Recognition Awards, distinguished faculty, staff, and administrators are honored and recognized for their outstanding achievements and years of service. The President's Access and Equity Award is presented to individuals who demonstrate a commitment to the spirit of diversity through participation in extracurricular activities and/or formal or informal initiatives at the institutional, community, state, regional, or national level, shown leadership through positive interaction among persons of different cultural backgrounds, and behavior which illustrates a commitment to inclusion of persons within the institution who are members of traditionally underrepresented groups. The 2020 recipient was Dr. Isaac Burt, Associate Professor, Counseling Recreation and School of Psychology and Associate Director, AWED.

B. President's Evaluation

The university President's performance is evaluated annually consistent with the provisions of his employment contract and Florida Board of Governors Regulation 1.001(5) (f). The process for evaluating the President's progress towards equity and diversity goals begins with the President's self-evaluation of his annual goals submitted to the Board of Trustees (BOT) Chair. The BOT Governance Committee provided President Rosenberg with a written assessment of its evaluation, and the Committee presented its written assessment and recommended performance rating for the BOT Full Board for approval. Dean C. Colson, Chair of the BOT, led the discussion on the President's Management Review during AY 2020-2021. June 16, 2021, a specific diversity, equity, and inclusion goal of *"Significant events or milestones towards fostering a culture of belonging and towards eliminating disparities within the FIU community among underrepresented groups"* was added to the President's performance evaluation for the 2021-22 reporting period.

The link to the minutes from the Governance adoption is https://bot.fiu.edu/wp-content/uploads/sites/27/2021/06/COMPLETE-AGENDA_Governance_6.16.21_print-copy_REV.pdf. The link to minutes from the June 2021 FIU BOT Meeting that reflect President Rosenberg's "Superior" performance rating is https://bot.fiu.edu/wp-content/uploads/sites/27/2021/06/COMPLETE-FULL-BOARD-Agenda_6.16.21_print-copy_REV.pdf

C. Executive Level Administrators' Evaluations

FIU is privileged to have leaders within our community doing an amazing job embracing and actualizing diversity, equity, and inclusion initiatives. In part, it is because of leadership support and stated expectations by our most senior leadership. In keeping with the university's commitment to drive change and elevate cultural consciousness toward achieving organization goals set within the Diversity, Equity, and Inclusion (DEI) Strategy, a guidepost for accountability among our FIU executive level administrators was set through the Executives' DEI Accountability Plan. The goal is to lead by example as an extension of the transformative work that the FIU community is being asked to engage in/with.

Components of the Executives' DEI Accountability Plan include:

- Complete a review of the [DEI Launch](#) (institutional mission and guiding values)
- View TED Talk by Paloma Medina – [Let's Stop Talking About Diversity](#) (increase cultural competence)
- Identify a DEI Advocate for Division (institutional investment in continual learning)
- Read 'Race Talk and the Conspiracy of Silence' by Derald Wing Sue (develop leadership expertise and make an institutional investment in continual learning)
- Annually review hires, promotions, terminations, retention, and reward strategies as well as demographic make-up (evaluation and assessment)
 - a. Assess racial and gender gaps identified (evaluation and assessment)
 - b. Establish an improvement plan for diversity, equity, inclusion, and belonging
- Create DEI initiative within Division/Unit/Office based on the outcome of analysis to address findings (Building trust and respect across stakeholder groups)

2021 EQUITY REPORT CONTRIBUTORS

Special thanks to the following individuals for their contributions to the 2021 Equity Report:

Division of Academic and Career Success

Dr. Valerie Morgan, Director, Academic & Career Success

April Lewis, Associate Director of Academic Support Services

Academic & Student Affairs

Counseling & Psychological Services (CAPS)

Dr. Todd Lengnick, Director

Housing & Residential Life (HRL)

Andrew Naylor, Senior Director

Lisaidy Turino, Manager, Administrative Support Services

Health Promotion Services

Mariela Gabaroni, Associate Director Health Promotion Services

Wellness and Recreation Center

Patricia Suarez, Assistant Director, Intramural Sports

Sanyo Mathew, Assistant Vice President for Student & Academic Affairs

Office of the Provost and Executive Vice President

Office of Planning and Finance

Priscilla Johnson, Assistant Director, Academic Support Services

Abilene Pinzon, Assistant Director Academic Support Services

Advance Women, Equity and Diversity (AWED)

Dr. Suzanna Rose, Associate Provost

Dr. Caroline Simpson, Associate Director

Analysis and Information Management

Dr. Hiselgis Perez, Associate Vice President

Planning and Institutional Research

Madelyn Cintron, Coordinator Statistical Research II

Maria Corrales, Data Analyst III

Dr. Yasmin LaRocca, Director, Institution Research

Athletics

Athletics Administration

Julie Berg, Senior Associate Athletic Director

Division of Enrollment Management & Services

Glenda Centeno, Senior Executive Assistant

Dr. Kevin Coughlin, Vice President for Enrollment and Management Services

Admissions

Jody Glassman, Director, University Admissions

Financial Aid

Francisco Valines, Director of Financial Aid

Transfer and Transition Services

Dr. Janie Valdes, Assistant Vice President

Diversity, Equity, and Inclusion (DEI)**Office of Diversity, Equity, and Inclusion**

Dr. Emmanuele Bowles, Director, Diversity, Equity, and Inclusion

Laura Lopez-Ramos, Assistant Director, Marketing and Communications, Diversity, Equity, and Inclusion

Office of Civil Rights Compliance and Accessibility

Christopher Chamorro, Equal Opportunity Program Specialist

Diversity Council Policy Committee

Veronica Appleby, Director, Administrative Services, Office of the Controller

Kristina Azzam, Senior Compensation Associate, Division of Human Resources

Chris Altizer, Adjunct Professor

Elizabeth Bejar, Senior Vice President Academic & Student Affairs

Phillip Carter, Associate Professor, English and Linguistics; Director, Center for the Humanities in an Urban Environment

Dr. Erica Caton, Director of Educational and Faculty Development, Center for the Advancement of Teaching, DEI Policy Committee Lead

Michael Hearon, Assistant Vice President, BBC and Regional Operations

Nathan Hiller, Executive Director for the Center for Leadership, Endowed Ingersoll-Rand Professorship

Gloria Johnson-Cusack, Senior Advisor to the President, Office of the President

Martha Meyer, Associate Teaching Professor Educational Policy Studies; Faculty Senate Representative

Tranae Rey, Audit Manager, Office of Internal Audit

Nicholas Vagnoni, Associate Teaching Professor, College of Arts, Sciences, and Education

Division of Human Resources**Talent Acquisition & Management**

Stephanie Felisme, Sr. Human Resources Manager

University Graduate School (UGS)

Dr. Lidia Kos, Associate Dean, University Graduate School and Associate Vice President, Research and Economic Development

Dr. Susan Webster, Assistant Dean, University Graduate School and Assistant Vice President, Research and Economic Development

ACADEMIC AFFAIRS REGULAR REPORTS

- I. Academic and Career Success**
- II. Engagement**
- III. Enrollment Management and Services**
- IV. Information Technology**
- V. Research and Economic Development / University Graduate School**
- VI. Academic & Student Affairs**

I. ACADEMIC AND CAREER SUCCESS

1. Honors College Academic Partnerships

The FIU Honors College continues its support for undergraduate research through the Advanced Research and Creativity in Honors (ARCH) Program which provides student/faculty matching, workshops, training, conference participation and funding, as well as money to support student research. This program provides opportunities for students to engage in supervised research and creative projects under the direction of FIU faculty experts in any subject field through the following five options: ARCH Apprenticeship, ARCH Proposal, Honors in the Major (Thesis/Senior Design Project), ARCH Project, and ARCH Thesis. ARCH has seen steadily increasing numbers in the past 5 years, with almost a hundred students taking part in ARCH pre-pandemic. Similarly, the annual undergraduate research conference, Undergraduate Research at FIU (URFIU), the largest multi-disciplinary research conference at FIU, has grown to over 300 attendees pre-pandemic. That success is due to many factors including the incorporation of significant research activities into many of our courses.

Additionally, the Honors College is now offering Micro-Credentialing badges. Honors Studies (the domestic and international Study Abroad courses), ARCH, and upper division courses are using Micro-Credential badging as a way to focus student efforts while showcasing the various skills and knowledge which students receive. To facilitate this effort, the Honors College is collaborating with the Office of Micro-Credentials to ensure that these badges communicate the competencies Honors College students are acquiring throughout their academic career and will showcase their skills to prospective employers.

2. VMock SMART Resume

One of the critical initiatives FIU is implementing to increase students' career-readiness is the expansion of access to the VMock SMART Resume platform. Currently, the College of Business and the Chaplin School of Hospitality & Tourism Management are using VMock for their students, but this Fall 2021, Career and Talent Development is scaling up the adoption of the platform to include all FIU students. VMock SMART Resume is a 24/7 online tool that will instantly review our students' resumes to provide feedback based on parameters we set, criteria gathered from employers, and global best practices. The feedback covers areas such as impact, presentation, competencies, and formatting. The tool also provides an aggregate resume score to assess the strength of the resume bench-marked against their own FIU peer group and a module that allows students to share and get feedback from an FIU career advisor.

Students will be encouraged to use this tool as a resource in building and enhancing their resumes with timely feedback that can be easily accessed at their convenience and discussed with a career advisor for further input. VMock will serve as an added layer of support to our students as they explore and navigate their internship/job search and application process.

II. ENGAGEMENT

1. Community Outreach and Events: Cafecito Chat Live & City of Miami Beach Resilience Visioning Workshops

The Office of Engagement continues to create a virtual meeting space for the FIU and local community via virtual workshops, webinars, networking events, and Cafecito Chats. During the reporting period, over 1,500 people engaged with us virtually and 200 via one in-person event.

In May, we held our first large scale in-person event with “Cafecito Chat Live!” This event was meant to bring together the FIU community and local partners for the first time in over a year. The event took place outside the Primera Casa building at MMC and engaged over 200 FIU students, faculty, staff and community members. In addition to the giant cafetera and snacks, participants were able to re-connect, network, and test the new Microsoft Surface Hub pilot now in the Engagement Conference Room and available to the entire FIU community.

The FIU and City of Miami Beach strategic partnership continue to grow. In 2021, we launched the Inspirational Visioning Campaign with Miami Beach Urban Studios, the Sea Level Solutions Center, and City staff. The first workshop was held virtually on July 21, 2021. 111 residents and scholars RSVP'd for the event which showcased architectural renderings of historic neighborhoods by FIU students who were asked to imagine a future that will be shaped by climate change, sea level rise, sustainability, innovation and City of Miami Beach residents. The workshop discussed the Buoyant City study, which evolves Miami Beach's vibrant historic districts through adaptive development. Participants had the opportunity to engage in small discuss groups via Zoom breakout room. The following City of Miami Beach and FIU leaders and environmental sustainability experts attended as speakers and conversation facilitators:

1. Amy Knowles, Chief Resiliency Officer, City of Miami Beach
2. John Stuart, Associate Dean of Culture and Community Engagement & Executive Director at MBUS, Florida International University
3. Betsy Wheaton, Director of Environment & Sustainability Department, City of Miami Beach
4. Aris Papadopoulos, Distinguished Expert in Resilience, Extreme Events Institute, Florida International University
5. Dr. Jayantha Obeysekera, Director, Sea Level Solutions Center Research Professor, Florida International University
6. Alan Shulman, Director of Graduate Programs in Architecture & Professor, University of Miami
7. Tom Mooney, Director of the Planning Department, City of Miami Beach

2. Community Coalitions: Talent Development Network

The Talent Development Network (TDN), operated by FIU Engagement, is a collaborative of Miami-Dade County's seven largest academic institutions and the Miami-Dade Beacon Council with the goal of building a paid internship culture in Miami-Dade. The initiative is fully funded by philanthropy.

TDN hosted the second annual CEO for a Day event, virtually, on April 9, 2021. The event brought together over 900 students from our TDN partner educational institutions for a unique opportunity for students to learn, connect, and network with local South Florida executives such as Uber, Google, United Way of Miami Dade, Royal Caribbean Cruiselines, and others.

TDN launched CEO for a Day as a community-wide talent initiative in 2020 with the aim to champion Miami's talent by intentionally connecting students from the region's academic institutions with local industry leaders and C-suite level executives. The goal is to inspire industry to build new paid internship opportunities and encourage Miami's talent to pursue opportunities in the local market.

Summer Youth Internship Program (SYIP): This Summer, TDN continues to work with Miami Dade County Public Schools (MDCPS) on the Summer Youth Internship Program (SYIP), a 5-week work-based learning experience with M-DCPS high school students placed in internship sites throughout

Miami-Dade County. Through the internship, students are able to gain practical experiences in the workplace, have the opportunity to make direct contact with professionals in the community, and apply their internship learnings to their academic and personal journeys. This year, over 40 students and 30 supervisors from across various departments at FIU are participating in the program. A virtual graduation celebration for the interns was held on August 5, 2021.

3. Future of Work: American Institute for Research Partnership

Dr. Jenesis Ramirez and Umer Rahman secured a \$30,000 grant via American Institute for Research and the Lumina Foundation to conduct primary research with Urban Potential Lab participants. Funds are secured and budgets for the researchers' time, and additional support, in the form of research assistants, project coordination support, and reporting/dissemination will be provided by AIR. The purpose of the investigation is to understand how participation in the UP Labs program influences adult learners' decisions to enroll or re-enroll in postsecondary programs during or after participation in UP Labs. In order to understand adult learners' experience and perspectives we will conduct a qualitative study to capture participants' narratives about college enrollment and re-enrollments. Data will be collected via surveys, in-depth one-on-one interviews, and two focus groups. The findings will be released in June 2022.

III. ENROLLMENT MANAGEMENT AND SERVICES

1. University Enrollment

In collaboration with Adrenaline films, University Admissions produced a one-hour episode of The College Tour. Alex Boylan hosts this documentary series that will be streamed on Amazon Prime and Roku. Each episode provides the viewer with an in-depth view of a university from the student perspective.

University Admissions, External Affairs, and producers from Adrenaline Films selected 19 student representatives from undergraduate, graduate and professional levels. Students described their rationale for selecting FIU and highlighted their experiences as students. For our episode, we included highlights from our preeminent programs, research facilities, student engagement opportunities, Panther pride, and FIU's place in the greater Miami community. President Mark B. Rosenberg narrated a special segment of the episode entitled Cafecito Break; in this part of the episode, Dr. Rosenberg regales the viewer with aspects of the unique FIU culture.

University Admissions is also spending the summer working on yield projects to ensure the incoming freshman, transfer and graduate classes meet University expectations for size and profile. At the same time, the Office is preparing for fall recruitment and planning a hybrid recruitment plan with both in-person and virtual recruitment events.

Summer 2021

As of July 21, 2021, 40,752 students have enrolled in courses for the summer 2021 term. This represents a -4% or -1,744 student decrease as compared to summer 2020 enrollment of 42,496. Student credit hour production also decreased by -17,814 or 6%, from 313,739 in summer 2020 to 295,925 in summer 2021.

Table 1
Summer Point in Time Enrollment Comparison by Accountability Type

	07/22/2020 Summer 2020	07/21/2021 Summer 2021	Diff.	% Diff.
<i>Headcount</i>				
Undergraduate	33,159	31,516	-1,643	-4.95%
Graduate	6,894	7,376	482	6.99%
Non-Degree Seeking	1,981	1,678	-303	-15.30%
Dual enrolled	462	182	-280	-60.61%
<i>Grand total</i>	<i>42,496</i>	<i>40,752</i>	<i>-1,744</i>	<i>-4.10%</i>
<i>Student Credit Hours</i>				
Undergraduate	256,083	236,611	19,472	-7.60%
Graduate	46,340	51,324	4,984	10.76%
Non-Degree Seeking	9,526	7,189	-2,337	-24.53%
Dual enrolled	1,790	801	-989	-55.25%
<i>Grand total</i>	<i>313,739</i>	<i>295,925</i>	<i>17,814</i>	<i>-5.68%</i>

Fall 2021

As of July 21, 2021, 38,530 students have enrolled in courses for the fall 2021 term. This represents a -6% or -2,464 student decrease as compared to fall 2020 enrollment of 40,994. Student credit hour production also decreased by -22,191 or -5%, from fall 2020.

Table 2
Fall Point in Time Enrollment Comparison by Accountability Type

	07/22/2020 Fall 2020	07/21/2021 Fall 2021	Diff.	% Diff.
<i>Headcount</i>				
Undergraduate	34,982	32,497	-2,485	-7.10%
Graduate	5,260	5,434	174	3.31%
Non-Degree Seeking	471	393	-78	-16.56%
Dual enrolled	281	206	-75	-26.69%
<i>Grand total</i>	<i>40,994</i>	<i>38,530</i>	<i>-2,464</i>	<i>-6.01%</i>
<i>Student Credit Hours</i>				
Undergraduate	383,566	355,890	-27,676	-7.22%
Graduate	45,096	51,486	6,390	14.17%
Non-Degree Seeking	3,522	3,093	-429	-12.18%
Dual enrolled	2,118	1,642	-476	-22.47%
<i>Grand total</i>	<i>434,302</i>	<i>412,111</i>	<i>-22,191</i>	<i>-5.11%</i>

2. International Admissions

FIU is ahead in applied, admitted, and matriculated international students for AY 2021-2022 (see table 2). For the upcoming year, FIU received more applications across all levels from prospective international students and reversed the earlier downward trend reported in April for undergraduate transfer applicants.

FIU is down in admitted international FTIC students driven by the decline in Spring 2022 numbers. The lower SAT/GPA requirements for Summer and Fall reduced the number of students admitted into Spring who applied to an alternative term. We will continue to monitor this group and encourage them to complete their applications in a timely manner in order to reverse the current downward trend.

We anticipate that incoming students will continue to encounter substantial roadblocks as they attempt to obtain visas; therefore, we will continue to support international students via online coursework while deferring I-20 entry terms.

Table 3
International Applications by Status and Academic Year (as of 07/09/2021)

Application Status	2020-2021	2021-2022	Diff.	% Diff.
FTIC				
Applied	1,293	1,613	320	24.75%
Admitted	489	483	-6	-1.23%
Matriculated	131	198	67	51.15%
Undergraduate Transfer				
Applied	1,471	1,539	68	4.62%
Admitted	628	754	126	20.06%
Matriculated	425	557	132	31.06%
Graduate				
Applied	2,249	3,548	1,299	57.76%
Active Referred	652	780	128	19.63%
Admitted/Matriculated	623	1,382	759	121.83%

3. Transfer and Transition Services

Transfer Credit Processing and Course Equivalencies

The Transfer Credit Processing team entered 65,158 courses and course updates into PantherSoft (student transfer record) from January 2021 through July 12, 2021; they are currently inputting credit-by-exam courses for incoming summer and fall (FTIC and transfer) students. Concurrently, our Course Equivalency team is proactively evaluating courses for all incoming students transfer students – 3,155 courses were evaluated during the last six months. The team is developing strategies to increase proactive rule building for prospective students. To date, FIU has articulated 84,125 courses for domestic students and 7,086 for international students. Our goal is to increase domestic rules for high recruitment areas outside Florida.

Together, this proactive work supports the most seamless transition possible for transfer students, which has positively impacted our institution's 2-year graduation rate for AA full-time students to 55% and improvements in 3-year rates.

FIU, in partnership with the Florida Consortium of Metropolitan Research Universities, University of Central Florida, and the University of South Florida was awarded a Helios Education Foundation \$1.25 million grant (4 years—July 1, 2021-June 30, 2025) focused on accelerating transfer success. FIU funding will include transfer student stipends that will help incentivize full-time enrollment or other college expenses (e.g., transportation, books, materials) as well as a new Transfer Student Success Coach, who will work with transfer students receiving the stipend. Our grant work will be grounded in evidence-based approaches, including qualitative data that incorporates the student voice and lived experiences. Kindly note the press release: The Florida Consortium of Metropolitan Research Universities and Helios Education Foundation Aim to create the most Transfer Friendly Campuses in the U.S. | Florida Consortium of Metropolitan Research Universities

Connect4Success

Our annual Connect4Success (C4S) Kickoff planning is underway. This year, BC and PBSC will once again offer a virtual program in the summer. MDC will offer a virtual "C4S preview" in the summer and an in-person program in early fall. The kickoffs for PBSC, MDC, and BC will take place on July 23, July 27, and August 6, respectively.

The number of students invited to Connect4Success this year was significantly lower than in previous years. To date, 370/1428 (26%) invited students confirmed their admission by selecting the state college they plan to attend. Last year's yield for summer and fall combined was 34%. We are engaging in several new initiatives to surpass this number. For example, in addition to the new "C4S preview", we modified our communication strategy with new and more frequent messaging and are working with our three local partner colleges on a call campaign to those students enrolled at the college but who have not yet committed to C4S. August 16 was the soft deadline to confirm admission to the program.

4. Financial Aid

2020-2021 Aid Year Disbursement

As of July 20, 2021 The Financial Aid Office disbursed \$537.2 million to 44,908 students. For the same period last year, we disbursed \$536.1 million to 44,399 students. We will conclude most disbursements for this aid year by the end of September 2021.

State-Wide Leadership

Our Senior Associate Director of Financial Aid, Katharine Conrad began her term as President of the Florida Association of Student Financial Aid Administrators July 1, 2021. FASFA has over 900 practicing Financial Aid Administrators as members.

5. Office of Scholarships

In collaboration with several internal constituents, our Office of Scholarships continues to provide students with emergency support as we return to normalcy amidst Covid-19. Since March 13, 2020, we processed over 47,000 applications for emergency assistance. We awarded and processed 32,429 grants to 21,967 unique students; these grants equated to \$47 million dollars in awards. The following points summarize highlights of these awards:

- a) Coronavirus Aid, Relief, and Economic Security Act (CARES, March 2020)- 11,043 awards (10,302 unique students), \$ 22 million (all funds spent)
- b) Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA, December 2020)- 16, 073 awards (15,853 unique students), \$19 million (all funds spent)
- c) American Rescue Plan (ARP, March 2021)- 5,313 awards, \$6 million spent to date, 58 million remaining to spend through March 2022.

6. University Registrar

Graduation Process Update

At the end of the Spring 2021 semester, we expanded the use of our enhanced graduation process beyond undergraduate degrees. We collaborated with various campus partners to pilot the use of this process to auto-award:

- 99% of master's degrees for College of Business
- 100% of all degrees for College of Law
- 100% of undergraduate certificates for College of Arts, Sciences & Education

Through this process, our department continues to improve customer service for students who can order transcripts with their degree conferred much sooner than previously. Today, we can confer degrees within one week following the end of term (previously this process took about 4 to 5 weeks).

Enhanced Electronic Processes

We launched new electronic processes via DocuSign to replace existing paper forms:

- Active Duty, Veterans, Spouses, and Dependents Transcript Request Form
- Late Add Request Form
- Late Graduation Application
- Student Withdrawal Form

These new e-forms reduce the time required to obtain approvals, provide both students and staff with a clear routing workflow, and simplify the submission of documents.

7. CRM and Enrollment Communications

At this time, the Office is updating 250+ communication plans for the 2021-2022 Undergraduate and Graduate recruitment cycle. We are also updating all reports for recruiters to track their recruitment activities. These reports provide data to recruiters on the effectiveness of these activities. They share this data with their supervisors throughout the recruitment season.

We launched two new projects:

1. *Request for More Information* for the Chaplin School of Hospitality and Tourism Management.
 - a. Form collects prospective student information.
 - b. Students that fill out the form receive communications about the college, and provide information on how to apply.
2. Financial Aids' Returning to Title IV funds (R2T4) Process Moved to Salesforce
 - a. R2T4 Emails sent through Salesforce will provide data on open rates & click through rates.
 - b. Email replies route to Salesforce as a new student case. These cases are visible in a queue for easier management by the department.

- c. Real time data on R2T4 student cases is available through Salesforce reports. These reports provide leadership accurate and timely information on the efforts associated with this process.

Our yearly office report highlights our operational efficiencies within the division. The CRM department receives department requests to help with student outreach and salesforce enhancements that support several divisions with their day-to-day activities in the system. Through this report, we establish goals and benchmarks and assess the services that provide for our internal constituents. Department's initiate an internal case request for these features.

Since our launch of this internal case request future in September of 2018:

1. Student outreach email request has increased by 68%
2. New Project Request has increase by 94% from FY2020 to FY2021.

IV. INFORMATION TECHNOLOGY REPORT

1. Security Strategy Update

The Division of IT continues to update and enhance the enterprise-wide security strategy to keep up with the ever-evolving cybersecurity challenges. In an additional effort to mitigate risk, beginning in August 2021, all users who log on to any FIU systems will be required to use two-factor authentication (2FA). 2FA provides an additional layer of security that helps minimize the risk of compromised accounts caused by phishing, social engineering and password attacks which have been on the rise in recent years. Phishing attacks are a type of social engineering cyber-attack that sends a fraudulent email designed to trick a person into revealing sensitive information, such as their password and credit card information, or deploying malicious software on a user's workstation such as ransomware. Additionally, the division will be making enhancements to the login page to include additional features such as extending the 'remember me' feature from 48 hours to 7 days that will facilitate a better user experience.

2. Cybersecurity Education and Workforce Development

The Division of IT is continuously doing its part to educate on cybersecurity and help minimize the workforce gap. For the fifth year in a row, the Division of IT in partnership with the Digital Era Group hosted the Secure Miami Cybersecurity Conference on Thursday, July 15, 2021. This year's conference was hosted virtually and focused on how organizations prepare to move beyond the pandemic and chart a secure path despite rising risks. This virtual event brought together over 400 IT security experts and professionals from across the country and gave the opportunity for attendees to network with the most highly sought-after security experts.

Additionally, the division, in collaboration with the Steven J. Green School of International and Public Affairs, and New America's Cyber Initiative will be hosting the National Initiative for Cybersecurity Education (NICE) Symposium: A Coordinated approach to Supply Chain Risks. The symposium will serve as a precursor to the annual NICE Conference in June 2022.

3. Technology Fee for the 2021/2022 Academic Year

The Technology Fee Council reviewed one-hundred and sixteen proposals (116) from academic and administrative units. The final recommendations were submitted to the Vice President and CIO Robert Grillo and Executive Vice President and Provost Dr. Kenneth G. Furton for approval. Based on recommendations made by the Technology Fee Council, a total of sixty (60) proposals were approved. Approved proposals align with the Next Horizon 2025 strategic plan and support any of the following: 1) emerging technologies; 2) create innovative concepts for teaching; 3) achieve exceptional student-centered learning; and 4) accelerate academic and career-ready success. The proposals that were approved for funding include improvements to the University's classroom and technologies across all our campuses, in addition to updates to technology equipment in our labs and libraries and enhancements to our wireless infrastructure.

4. FIU EdIT 2021 Conference

The Division of IT will host its second FIU EdIT Conference on October 15, 2021. The conference will be hosted in-person at the Modesto Maidique Campus and will also be offered virtually to off-site attendees. FIU EdIT explores innovations in educational technology and provides a platform to highlight the leading and innovative tools while showcasing technologies that are transformative in the educational landscape. Past conference attendees include FIU faculty, staff, and leading subject matter experts from across the country to demonstrate and collaborate on new, existing, and upcoming technologies in education.

V. RESEARCH AND ECONOMIC DEVELOPMENT / UNIVERSITY GRADUATE SCHOOL

1. External Grant Awards' Performance

During fiscal year (FY) 2020-2021, FIU researchers received \$309.5M in awards, which represents a 57.4% increase from the value of awards received last FY (\$196.7M). This large growth was impacted by CARES Act funding, which was awarded by the federal government as grants. Some, but not most, of the CARES Act funding will be for research. Thus, with the exclusion of CARES Act funding, research awards increased 12%, from \$175M to \$195M. Awards received by centers and institutes increased by 8.4% during FY 20-21, from \$80.5M to \$87.4M. Notable increases for Centers were for the Center for Children and Families, with a 14% increase and reaching \$19M in awards, and the Applied Research Center with a 40% increase, reaching \$9M in awards. Among Colleges, the Robert Stempel College of Public Health and Social Work, had a 59% increase, reaching \$26M in awards. The Steven J. Green School of International and Public Affairs had an increase of 77%, reaching \$11M in awards. For all awards received during FY 20-21, funding from federal sources increased by 61%; state and local government sources increased by 53%, and private/other sources increased by 19%. Additionally, 85% of the value of all awards came from federal sources, 10% from state and local government, and 5% from private/other sources. The value of proposals submitted during FY 20-21 increased by 7%, from \$789M to \$848M. Notable college increases in proposal amounts was the Robert Stempel College of Public Health and Social Work (21%), the Steven J. Green School of

International and Public Affairs (51%), and the College of Arts, Sciences and Education (19%). The number of proposals submitted increased by 10%, from 1,218 to 1,335.

2. Innovation, Partnerships and Economic Development

StartUP FIU is working with 22 faculty members at various stages of research commercialization. Six new teams completed a regional NSF I-Corps to qualify for national I-Corps. One team, Associate Professor Anu Godavarty's diabetic wound care project completed the national I-Corps program in the quarter and four teams were accepted to the national I-Corps program for FY2022. StartUP FIU staff developed and presented two virtual workshops on commercializing research for 69 faculty. Four faculty teams working with StartUP FIU were selected by MITRE for initial meetings. Two teams had an initial meeting and no follow up is expected. One team has had two meetings and more meetings are planned (Associate Professor Adela Timmons for ML wellness). One professor met with MITRE in early July. Twelve of the 18 students that were accepted to Beta Studio successfully completed the program, which centered around local pitch competitions and was critical to the success of our students at the Venture Bites college entrepreneurship competition hosted by Miami Angels and the City of Miami. Three teams composed of nine students advanced to and pitched in the 2021 Hult Prize Regional Summits (Boston and Toronto, held virtually this quarter). This marks the most FIU teams to compete at the regional round since StartUP FIU began supporting The Hult Prize Challenge in 2017. Cohort 4 of the business incubator program launched with 15 new companies in April, bringing total program companies to 48. The companies are all local, small minority or woman-owned businesses. This cohort included a group of entrepreneur industries outside construction, including IT and marketing. Program participants were awarded 18 anchor contracts from April to June 2021 and procured \$1,827,258 vs. \$627,351 the same period a year ago. StartUP FIU Food was awarded a \$750,000 grant from Wells Fargo Foundation in May 2021 to develop and expand an online platform that supports and accelerates minority and women-owned businesses with aspirations to expand their businesses online. The team spent the second quarter providing free online workshops to over 270 small businesses. The team secured access to capital from Miami Dade County's Credit Union for future website participants and developed a partnership with Legal Services Miami to provide pro-bono legal consultation and workshops for users of an online platform. The Social Innovation and Entrepreneurship team led two social innovation events for 44 students called Changemaker Chats with university partners focused on gender equity and LGBTQIA activism and two Changemaker Chats with 35 external community partners focused on Miami's growing tech sector and social innovation. As a result of the program's initiatives and data collection efforts, in collaboration with the Office of Accountability and Information Management, FIU now ranks 3rd in the nation in the United Nation's Sustainable Development Goals (SDGs) for its work focused on ending poverty (SDG #1), preserving and protecting life below water (SDG #14), and preserving and protecting life on land (SDG#16) as ranked by the Times Higher Education Social Impact Ranking system for 2020/2021. During the fourth quarter, the Technology Transfer group received 30 disclosures, filed 25 patent applications, received 5 patents, and entered into 6 license agreements. Total patents applications and receipts during the fiscal year were 74 and 59, respectively. FY 2020-2021 ended with a total of 108 disclosures—the most in FIU's history. Additionally, for calendar year 2020 results from the annual NAI/IPO survey for the top 100 universities in the world for US patent production that recently came out, FIU ended up in 42nd place overall worldwide.

3. University Graduate School (UGS)

For the Academic Year, 3,523 master's degrees were awarded (2% increase compared to the previous year). There was an increase of 6% in research doctorates (from 194 to 206), and 450 BOG Preeminence doctoral degrees were awarded, a 7% increase from last year. As of July 19, 2021, UGS received 2,942 applications for doctoral programs, and thus far, we have admitted 783 doctoral

students, a 43% increase compared to last year; 175 have enrolled, the same number compared to last year. We have received 9,077 applications for master's degrees (12% increase compared to last year) of which 4,339 were admitted (15% increase compared to last year), and 1,146 have enrolled, an 8% increase compared to last year. During the past academic year UGS launched two innovative programs. The Undergraduate to Graduate Program aims at providing junior/senior undergraduate students at FIU with firsthand lab experience while receiving a small stipend and preparing them to transition to PhD programs at FIU with guaranteed funding from UGS and their home program for 5 years. The first cohort of 5 students started in Fall 2020 and have all enrolled in PhD programs at FIU starting in Fall 2021. In response to a request made by the Graduate Professional Student Committee, UGS initiated the Graduate Student Research Support Program to provide funds (\$1,200) for PhD candidates to conduct their research projects. Twenty-seven students were selected on a competitive basis to receive the awards. UGS formally established the Office of Fellowships and Training with the goal of supporting FIU graduate students in seeking external competitive funding and faculty with submission of training grants from federal agencies. As part of this initiative, throughout Fall 2020 and Spring 2021, UGS offered a series of virtual workshops and information sessions to highlight prestigious funding opportunities and provide students with basic overview of grant writing. Staff also provided individual consultations to students seeking and applying to external fellowships and research grants. Five current and one incoming doctoral students received NSF Graduate Research Fellowship, with two receiving an honorable mention, the largest number of FIU recent awards. UGS continued to engage Graduate Program Directors with a professional development program so they are better prepared to support their students' needs. In the fall and spring, they participated in a refresher workshop on policies and procedures, and a panel discussion with members of the DEI office to highlight new joint initiatives promoting the increase of diversity in graduate programs and strategies for retention of minoritized groups of students. UGS also partnered with HR to deliver training on the new requirements for graduate student hiring processes.

VI. ACADEMIC & STUDENT AFFAIRS REPORT

1. Student Government Association Deferred Maintenance

The Student Government Association has developed a procedure to direct Activity and Service (A&S) resources to address deferred maintenance issues in Capital Improvement Trust Fund (CITF) funded buildings on a yearly basis. The first year of the plan generated approximately \$1.4 million dollars that is being used to address maintenance of facilities. This partnership with SGA ensures that CITF funded buildings will be continuously inspected and issues addressed in a timely manner.

2. Student-Athlete Academic Center

Our FIU student-athletes posted a 3.397 Spring term GPA (2021). In comparison, our student-athletes posted a 3.31 GPA for Fall (2020) and a 3.53 GPA for Spring (2020). Women's Golf is our leader for the highest overall team GPA for the Spring term, 2021, posting a 3.949 while Men's Cross Country earned the highest male GPA posting a 3.784. 62 of our student-athletes earned a 4.0 for the Spring term, 2021, while 202 student-athletes earned Deans List standing. 296 student-athletes earned a 3.0 or higher. The Student-Athlete Academic Center places an emphasis on building a student-centered culture for all sports with an focus on graduating our student-athletes. This past May, 54 student-athletes earned their bachelor's degree from FIU. When added to our 31 graduates in December, 2020, 85 total student-athletes graduated in AY 2020-21.

3. Student Grants

In 20-21 DASA has awarded \$574,000 to 596 students. Students that receive these grants are invited to participate in financial wellness coaching and receive support services to ensure that they are on track to graduate and have developed a post-graduation plan. 100% of students that were funded in 20-21 have been retained, graduated, or have applied to graduate in summer 2021.

4. Center for Student Leadership (CLS)

This year we were presented with many challenges with Covid and engaging our students in an remote environment and then a return to campus. Though presented by these challenges, this did not stop the momentum of the CLS team. Our 2 largest events, Relay for Life and Roarthon raised over \$100,000 combined total. We hosted 26 signature events and programs which engaged 8872 students both in person and virtually. The pandemic did not slow our students in helping our community, this academic year our students reported 8872 hours of volunteer services. Our FIU community supported the Pantry through the Ignite campaign which raised \$112,420!

5. Enhancing Parent & Family Resources at FIU

Orientation and Family Programs has made some significant enhancements to serve parents and family members. Starting in April, a Parent and Family Orientation web-based course was designed to support and educate new Panther families about important FIU policies, resources, and how to best support their student(s). For a small fee, parents and families can now complete the self-paced course on their own time and have access to the materials for approximately one year. Course materials include over 40 pre-recorded informational videos, the Orientation Resource Guide with a dedicated section addressing parents/families, along with greetings from the dean or a representative from each college. Informational materials include housing and residential life, campus safety, dining, retail services, academic and student financial resources, along with engagement, education abroad, and career services information and more. Lastly, registered families also receive a complimentary electronic copy of the text, *College Ready: Expert Advice for Parents to Simplify the College Transition*.

In addition to this virtual program, Orientation and Family Programs will be hosting five 60-minute informational sessions on Zoom/Facebook in collaboration with several departments and peer advisor coordinators throughout the months of July. Orientation and Family Program will continue to join forces with campus partners to host virtual and in person interactive programming. Many of these program offerings are hosted in multiple languages and saved on the FIU Parent/Family Facebook account. In closing, Parent and Family Day will now become an engagement week which will occur on October 18 – 23, 2021. These increased services and resources have provided family members the support and knowledge needed to assist their student in being successful at our FIU.

6. Disability Resource Center

The DRC has received 88 eligible applications for the Theodore R. and Vivian M. Johnson Scholarship for the 2021-2022 academic year. This scholarship, funded by the Florida Board of Governors and an FIU challenge grant match with the Johnson Scholarship Foundation, is awarded to undergraduate students with disabilities who are seeking their first baccalaureate degrees and have a significant unmet financial need. For the upcoming year, student recipients are pursuing majors such as Information Technology, Health Services Administration, and Biology, and have disabilities including psychological/behavioral disabilities, Autism Spectrum Disorder, and specific learning disabilities.

7. FIU Online

Softbank Website - In a matter of two days, FIU was able to design, develop, and launch a new <https://softbankmasterclass.fiu.edu> website for the SoftBank Operator School (SOS). The website allows FIU students to register to participate in the S.O.S. semester-long program that will offer for-credit graduate and undergraduate courses for enrollees at Florida International University. FIU Online also designed the [promotional video](#) for the SoftBank Operator School.

B.A. in Global Sustainable Tourism -

In January 2021, the Chaplin School of Hospitality and Tourism launched the fully online B.A. in Global Sustainable Tourism. This degree is a direct response to the shift toward sustainability in all industries and was created in partnership with the FIU Department of Earth and Environment of the College of Arts, Science and Education. Corporate social responsibility programs are multifaceted, and sustainability paths for organizations must address conservation activities, consumer demand, the operations of an organization and industry governance. This program prepares graduates from the business standpoint and for the interdisciplinary work needed to make sustainability a priority in the hospitality and tourism industry. The fact that the new B.A. in Global Sustainable Tourism is available in an online format offers its own sustainability and resilience advantages and is in line with the university's commitment to becoming synonymous with sustainability and serving its community, anytime, anywhere. The bachelor's degree speaks to all avenues and, because of its novel approach, has garnered considerable press with mentions on local television and social media. The program already has substantial interest for the spring 2022 start.

Online Success Webinar Series -

Summer 2021, FIU Online focused on increasing awareness of Online Student Success Services and student engagement with a new landing page (onlinesuccess.fiu.edu) and the launch of the Online Success Webinar Series. June 2021, FIU Online hosted its first Online Success Webinar series focusing on Financial Aid tips and important deadline information. The webinar series will take place each term and aims to cover key focus areas that will help students navigate their journey. Each webinar is hosted by an Online Student Success Coach and university SME, such as a financial aid manager, Counseling & Psychological service team member, Career & Talent Development Advisors, and more. Students will get the opportunity to ask questions live and gain valuable insight into the topics that matter most to their success both in and out of the classroom.

Webinar Topics:

- Meet Your Success Coach Team
- Financial Aid
- Mental Health & Stress Management
- Time Management
- University Resources
- Commitment to Graduate
- Career Planning