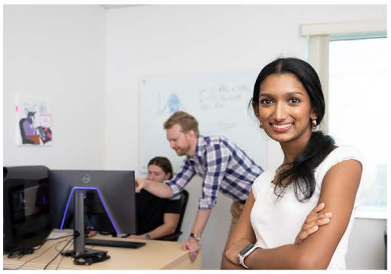
2024 ANNUAL REPORT

FLORIDA ATLANTIC UNIVERSITY
Charles E. Schmidt
College of Science





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Message from the Dean

The Schmidt College of Science at Florida Atlantic University proudly announces a record-breaking 2024. This year has been one of exceptional achievement and growth across all areas of the College, from student success and faculty excellence to groundbreaking research, impactful outreach, and increased visibility. We have so much to celebrate as we continue to evolve as a leading center for scientific discovery.

Both the College and University achieved new heights in the U.S. News & World Report rankings, a testament to our ongoing commitment to excellence. On a national scale, Florida Atlantic was named a Fulbright Hispanic-Serving Institution (HSI) Leader for 2024.

For the second consecutive year, the College has strategically expanded its faculty and postdoctoral ranks, strengthening our commitment to exceptional instruction and cutting-edge research within our broad network of departments and centers.

The 2023-24 academic year was marked by the highest number of degrees conferred in the College's history. We proudly awarded 1,617 undergraduate degrees and 172 graduate degrees, which is a testament to the dedication of our talented students.

A significant milestone was achieved in 2023-2024, with total research expenditures reaching $13.8 million. This represents a five-year upward trend in research funding from major federal and state agencies, NGOs, and private grants. We offered a range of new student success scholarships, paid internships, and research funding opportunities through the School of Environmental, Coastal, and Ocean Sustainability thanks to a generous donation, and we bolstered undergraduate research by partnering with FAU's Office of Undergraduate Research and Inquiry to increase the number of summer research fellowships.

The College and its units engaged the community through dozens of public events, addressing critical issues such as water quality, the Florida Wildlife Corridor, and the future of artificial intelligence. Highlights included a solar eclipse viewing hosted by the Department of Physics, which drew over 1,000 attendees, and a new partnership with WLRN NPR to present "Bright Lit Place Live," featuring College scientists discussing Everglades restoration.

We are shaping the future of the world around us, and our students are key to carrying on this momentum across the breadth of the sciences. It is what ignites our passion for excellence in education and research. I encourage you to read on to learn more about all our accomplishments in greater detail throughout this report.

Valery E. Forbes, Ph.D.
Dean and Professor
Charles E. Schmidt College of Science

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2024 Highlights

FAU Jumps in U.S. News & World Report's 2025 List of Top Universities

Florida Atlantic University made considerable gains in the U.S. News & World Report list of "Top Public Schools," moving up to No. 103 from No. 112 in this year's ranking of the nation's best universities. U.S. News & World Report also ranked FAU at No. 189 for "Top National Schools," moving up 20 spots from No. 209 last year.

FAU Named 2024 Fulbright HSI Leader by the U.S. Department of State

Florida Atlantic University was named a Fulbright Hispanic-Serving Institution (HSI) Leader for 2024. Each year, the U.S. Department of State's Bureau of Educational and Cultural Affairs recognizes select HSIs for their strong engagement with the Fulbright Program, the U.S. government's flagship international academic exchange program. This is the second time that FAU has been featured as part of this initiative – the first being in 2023.

FAU Receives Record-breaking Number of Applications

Florida Atlantic University received more than 46,000 first-year applications for Fall 2024 – an all-time university record. The 27% increase compares to the final first-year pool of 36,700 in April 2023. Of the 46,933 applicants, 70% are in-state and 30% are from out-of-state.

'Transcend Tomorrow' Campaign Reaches $500M Milestone

Florida Atlantic has raised more than $500 million in its comprehensive fundraising campaign, *Transcend Tomorrow: The Campaign for Florida Atlantic University,* as a result of the generosity of more than 58,000 donors. Surpassing this milestone places the University at more than 80% toward its $600 million goal. The College has served as a major contributor to these priorities for the University.

Significant Gift Supports the Next Generation of Environmental Stewards

The School of Environmental, Coastal, and Ocean Sustainability (ECOS), Florida Atlantic's collaborative hub for programs focused on environmental sustainability, received a significant gift focused on supporting student success from Wayne and Lucretia Weiner. It establishes 22 scholarships, 20 paid internships, 10 summer research stipends, programmatic support for Florida Atlantic's Semester by the Sea Program, a Professor-in-Residence program, and support for science communication, outreach, and mentorship.

Marine Science Lab Receives $1.6M from Glenn W. Bailey Foundation

A gift from the Glenn W. Bailey Foundation extends the Marine SEA (Science, Education, and Arts) Scholars Program within the Charles E. Schmidt College of Science's Marine Science Laboratory. Housed in the Gumbo Limbo Environmental Complex in Boca Raton, the program provides financial assistance to students who demonstrate academic excellence and a commitment to become ambassadors of environmental community outreach. This latest gift will extend the program for five more years.

$1M USDA Grant Establishes Microbiome Innovation Cluster

A four-year, collaborative $1 million grant from the United States Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) established South Florida's first-of-its-kind FAU Microbiome Innovation Cluster. The cluster will help address complex challenges facing traditional agriculture and declining interest of the next generation in food, agriculture, and natural resources careers.

Schmidt College of Science Confers Record Number of Degrees

During the 2023-24 academic year, the Charles E. Schmidt College of Science conferred the highest number of degrees in the College's history. The College awarded an impressive 1,617 undergraduate degrees and 172 graduate degrees.

100% of Pre-Health Students Admitted to Professional Graduate Programs

All 72 members of the 2023-2024 class of the Schmidt College of Science future doctors received a letter of acceptance to a health professional graduate program. Faculty, staff, and families came together on May 1 for the College's annual Future Doctors' Reception.

New Faculty Hires Bolster Education and Research

The Schmidt College of Science welcomed 14 new faculty and instructors, and 16 postdoctoral fellows during the 2023-2024 academic year. The new faculty and postdoc hires increase the College's research and academic bandwidth and offer students even greater opportunities to engage in research and experiential learning.

Palm Beach County Commissioners Tour Florida Atlantic's Marine Science Lab

Several elected Palm Beach County officials visited the College's Marine Science Laboratory throughout the fall semester to explore the unique facility. The lab, housed within the Gumbo Limbo Environmental Complex in Boca Raton, serves as a multi-disciplinary space for College faculty and students who conduct world-class research on how marine organisms interact with their environment.

Annual Science Social and Dr. Eric Shaw Excellence in Science Undergraduate Research Poster Competition

On Oct. 17, the Schmidt College of Science hosted its annual Science Social. The event attracted hundreds of undergraduate students to explore degree programs and research opportunities, meet with advisors and student organizations, speak with faculty members, and connect with special units in the College such as the Office of Pre-Health Professions. The Dr. Eric Shaw Excellence in Science Undergraduate Research Poster Competition was also held in conjunction with the event that awarded top competitors $2,000 in awards.

Solar Eclipse Event Attracts 1,000 Attendees

More than1,000 members of the greater community and the university gathered to watch a rare partial solar eclipse on Florida Atlantic's Boca Raton campus on April 8, hosted by the Schmidt College of Science's Department of Physics and FAU Astronomical Observatory.

Nat and Dorothy Hyman Lecture Series

The Nov. 21 Nat and Dorothy Hyman Science Lecture brought Carl Zimmer, an award-winning New York Times columnist and author of 15 books, who took guests on a mind-bending exploration of how AI is teaching itself the fundamental principles of biology.

Frontiers in Science Public Lecture Series

For over two decades, the Schmidt College of Science's Frontiers in Science Public Lecture series has been a pillar for communicating and engaging in the sciences within our community. The 2024 season included critical panel discussions about South Florida's water quality and the Florida Wildlife Corridor with key experts, including Lindsay Cross, M.S., State House Representative for FL District 60, as well as renowned environmental journalist with WLRN Public Media, Jenny Staletovich, who served on the panels.

Center for Environmental Studies Celebrates 30 Years

On Dec. 3, Schmidt College of Science faculty and staff, along with supporters, celebrated Florida Atlantic's Center for Environmental Studies' (CES) 30th anniversary with a beach restoration project at Red Reef Park in Boca Raton.

College Snapshot

By the Numbers (number of students, postdocs, faculty)

- 6,992 undergraduates
- 631 graduate students
- 24 postdoctoral fellows
- 136 tenure/tenure track faculty members (including faculty with joint appointments)
- 8 non-tenure track research faculty
- 48 instructors

Academics

41+ degree programs

- 19 baccalaureate
- 15 master's
- 7 Ph.D.
- 2 professional master's programs
- 21 certificate programs

1,789 Degrees Awarded Annually

- 1,617 bachelor's
- 132 master's
- 40 doctoral

Interdisciplinary Degree Programs

- Applied Mental Health Services Undergraduate Certificate
- Environmental Restoration Graduate Certificate
- Environmental Science Master's Program
- Environmental Science Undergraduate Certificate
- FAU Max Planck Honors Program
- Health Science Bachelor's Program
- Integrative Biology Doctoral Program
- Marine Science and Oceanography Master's Program
- Medical Physics Graduate Certificate
- Neuroeconomics Graduate Certificate
- Neuroscience Graduate Certificate
- Neuroscience Doctoral Program
- Post-Baccalaureate Pre-Health Professions Graduate Certificate/Preparatory Program
- Undergraduate Research Certificate

Departments

- Biological Sciences
- Chemistry and Biochemistry
- Exercise Science and Health Promotion
- Geosciences
- Mathematics and Statistics
- Physics
- Psychology
- Urban and Regional Planning

Schools

- Environmental, Coastal, and Ocean Sustainability

Centers

- Center for Biological and Materials Physics
- Center for Complex Systems
- Center for Cryptology and Information Security
- Center for Environmental Studies
- Center for Geo-Information Science

- Center for Molecular Biology and Biotechnology
- Center for Urban and Environmental Solutions

Field Stations and Arboretum

- Marine Science Lab at Gumbo Limbo Nature Center, city of Boca Raton
- Riverwoods Field Laboratory, located in the Kissimmee River Basin in the city of Lorida
- Robert J. Huckshorn Arboretum, Florida Atlantic's Jupiter campus

Campuses

- The College's programs and research extend across the University's 110-mile South Florida service region, including the Davie campus, Boca Raton campus, Jupiter campus, and the Harbor Branch Oceanographic Institute campus in Fort Pierce.
- Each campus offers unique opportunities for science majors that we encourage students to explore as they build their curriculum and progress through their College experiences.

Gruber AI Sandbox

- One of the nation's first multi-disciplinary, state-of-the-art artificial intelligence (AI) labs located in a university library, the collaborative, 3,400-square-foot experimental space was designed for students of all levels, from all disciplines, to directly engage with the fast-advancing field of AI.
- The space is operated through a partnership with FAU Libraries, the Schmidt College of Arts and Letters, and the Schmidt College of Science, and is overseen by the Schmidt College of Science's Center for Complex Systems; the Sandbox is home to the Machine Perception and Cognitive Robotics Laboratory from the Schmidt College of Science and the Center for the Future Mind from the Schmidt College of Arts and Letters.

Signature Events and Outreach

- Astronomical Observatory Open Viewing Nights and Public Education Events
- Combinatorics, Computing, Group Theory, and Applications Conference (celebrating 55 years in 2024)
- Frontiers in Science Public Lecture Series
- Future Doctors Reception
- Marine Science Lab Public Visitors' Gallery and Public Education Programs
- Math Days
- Mu Alpha Theta Mathematics Competition
- Nat and Dorothy Hyman Science Lecture Series
- Pre-Health Professions Week and Graduate and Professional Fair
- Pre-Health Summit
- Riverwoods Field Lab Tours and Academic and Public Education Activities

- Robert J. Huckshorn Arboretum Festivities
- Science Olympiad
- Science Social and Dr. Eric Shaw Excellence in Science Undergraduate Research Poster Competition
- Young CryptograpHers Summer Camp

Signature Programs

- Combined Degrees (Bachelor's to Master's)
- Honors in the Major: Honors in Biological Sciences Program, Honors in Chemistry Program, Honors Program in Mathematics, Upper-Division Honors Program in Psychology, Honors Program in Urban and Regional Planning or Urban Design
- Jumpstart Postdoctoral Program
- Master's Along the Way
- Soar-in-Four Medical School Pathway Program
- Soar-in-Four Scholars Program
- Undergraduate Research

Undergraduate Students

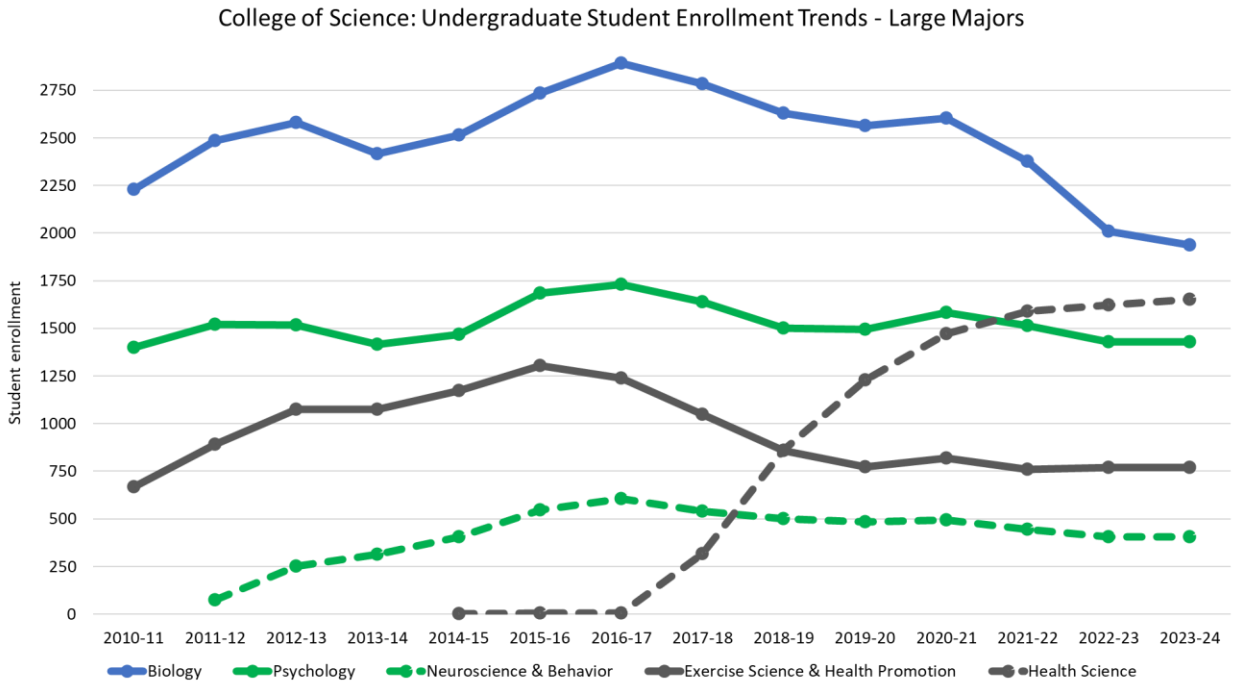
Top Undergraduate Degree Programs, Respectively, by Enrollment, at the University

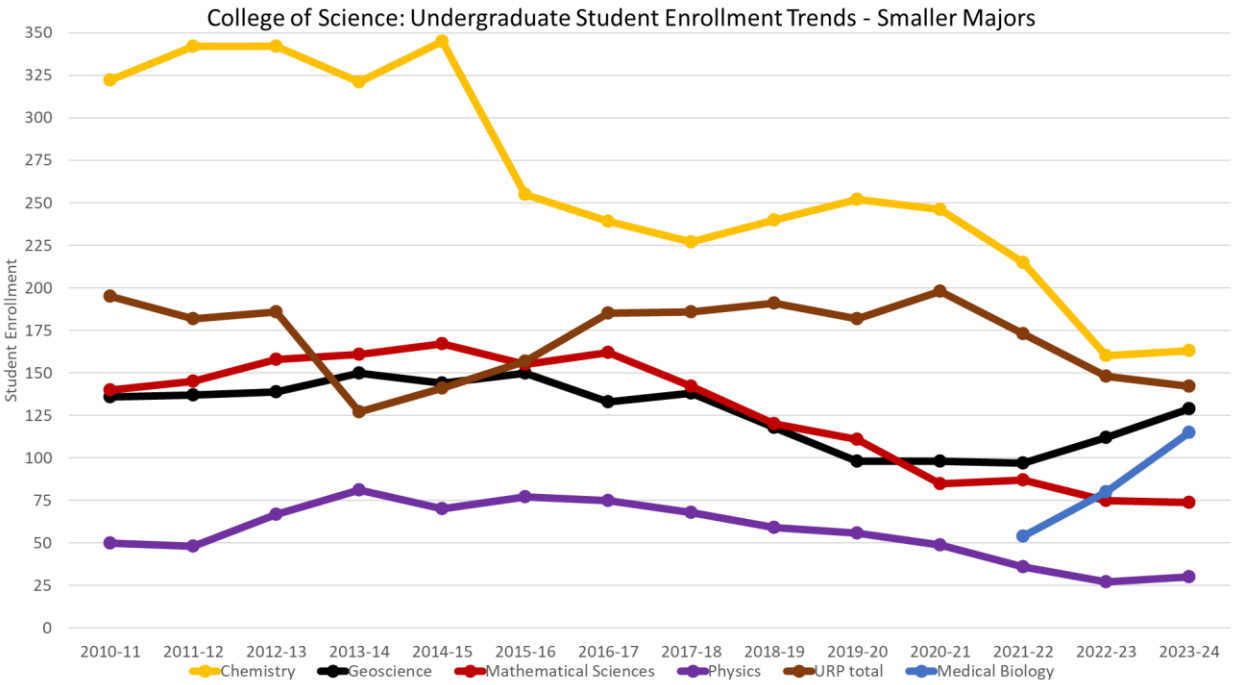
- #1. B.S. Biological Sciences
- #2. B.A. Health Science
- #3. B.A. Psychology
- #8. B.S. Exercise Science and Health Promotion

Key Enrollment Metrics (2023-2024 AY)

- 6,992 undergraduates enrolled
- 6,202 Florida residents (89%)
- 1,459 first-generation college students (21%)
- 2,431 White (35%)
- 2,150 Hispanic (31%)
- 1,553 Black/African American (22%)
- 1,934 Male (28%)
- 5,058 Female (72%)
- 4,112 FTIC students (59%)
- 1,894 transfer students from Florida public community college (27%)

Majors


College of Science: Undergraduate Student Enrollment Trends - Large Majors
Student enrollment
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
0
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
Biology
Psychology
Neuroscience & Behavior
Exercise Science & Health Promotion
Health Science


College of Science: Undergraduate Student Enrollment Trends - Smaller Majors
Student Enrollment
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21
2021-22
2022-23
2023-24
Chemistry
Geoscience
Mathematical Sciences
Physics
URP total
Medical Biology

Bachelor Degrees Awarded

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Biological Science	439	484	488	389	391
Chemistry	27	34	36	38	38
Exercise Sci. and Health Promotion	156	175	135	173	157
General Studies	107	78	58	84	116
Geography (incl. online)	9	4	1	1	0
Geology/Geosciences (incl. online)	19	6	14	18	35
Health Science	185	211	260	292	349
Mathematics	32	13	13	20	20
Neuroscience and Behavior	118	125	109	101	99
Physics	9	9	8	5	7
Psychology	343	307	327	312	349
Urban and Regional Planning	24	23	16	13	23
Urban Design	16	23	31	17	23

Retention and Graduation Rates (2023-2024)

- Academic Progress Rate (FT with a GPA of 2.0) 81.0% (FAU 82.2%)
- Six-year FTIC graduation rate (FT) 63.5% (FAU 62.4%)
- FTIC Pell recipient six-year graduation rate (FT and PT students) 62.7% (FAU 63.2%)
- Percent of bachelor's degrees awarded to minorities 56.6% (FAU 51.4%)
- Four-year FTIC graduation rate (FT) 55.1% (FAU 53.1%)
- Percent of graduate degrees awarded in areas of strategic emphasis 90.1% (FAU 69.6%)
- Percent of undergraduates enrolled (FT) 74.0% (FAU 72.8%)
- Percent of undergraduate degrees in areas of strategic emphasis 69.9% (FAU 61.5%)
- Three-Year New FL AA Transfers Graduation Rate (FT and PT) 62.5% (FAU 59.6%)

Undergraduate Research

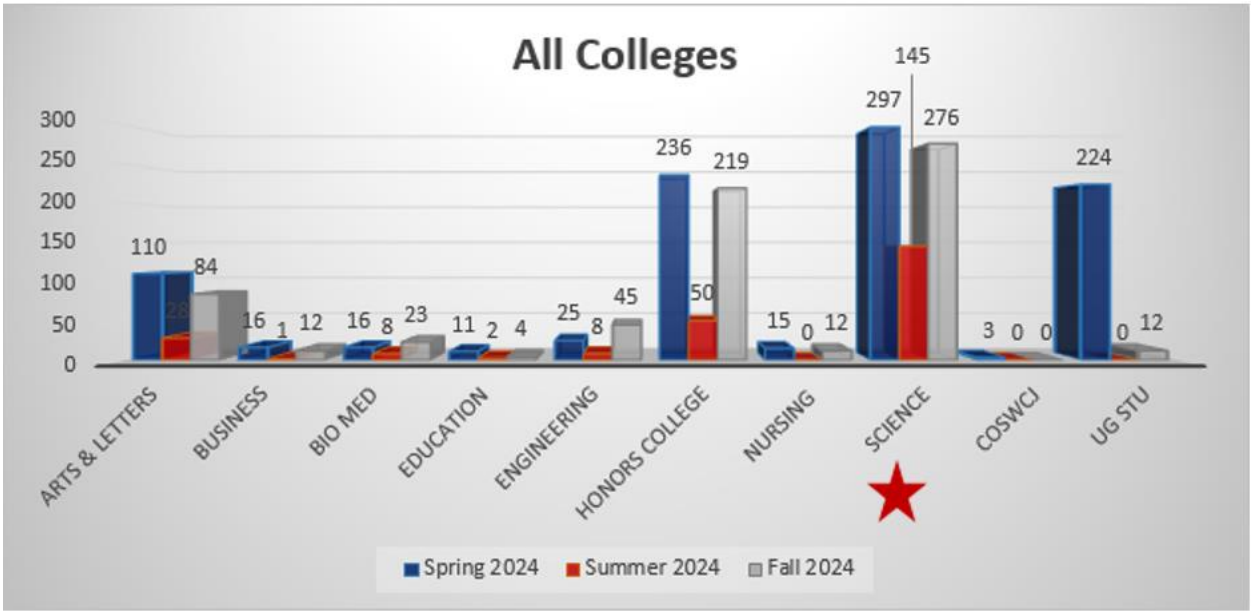
The College emphasizes outstanding, real-world experiences for our undergraduate science majors. We work closely with the Office of Undergraduate Research and Inquiry (OURI) to encourage undergraduate student research. Our undergraduate student scientists get funded, published, recognized, and are involved with research, scholarship, and creative activities.

Students Registered in Directed Independent Research (DIR) Courses 2024

College	Spring	Summer	Fall	Total
Dorothy F. Schmidt College of Arts and Letters	14	3	5	22
College of Business	12	0	9	21
College of Education	9	2	4	15
College of Engineering and Computer Science	0	0	1	1
Honors College	65	35	70	170
Charles E. Schmidt College of Medicine	16	8	20	44
Charles E. Schmidt College of Science	**238**	**129**	**213**	**580**
College of Social Work and Criminal Justice	3	0	0	3

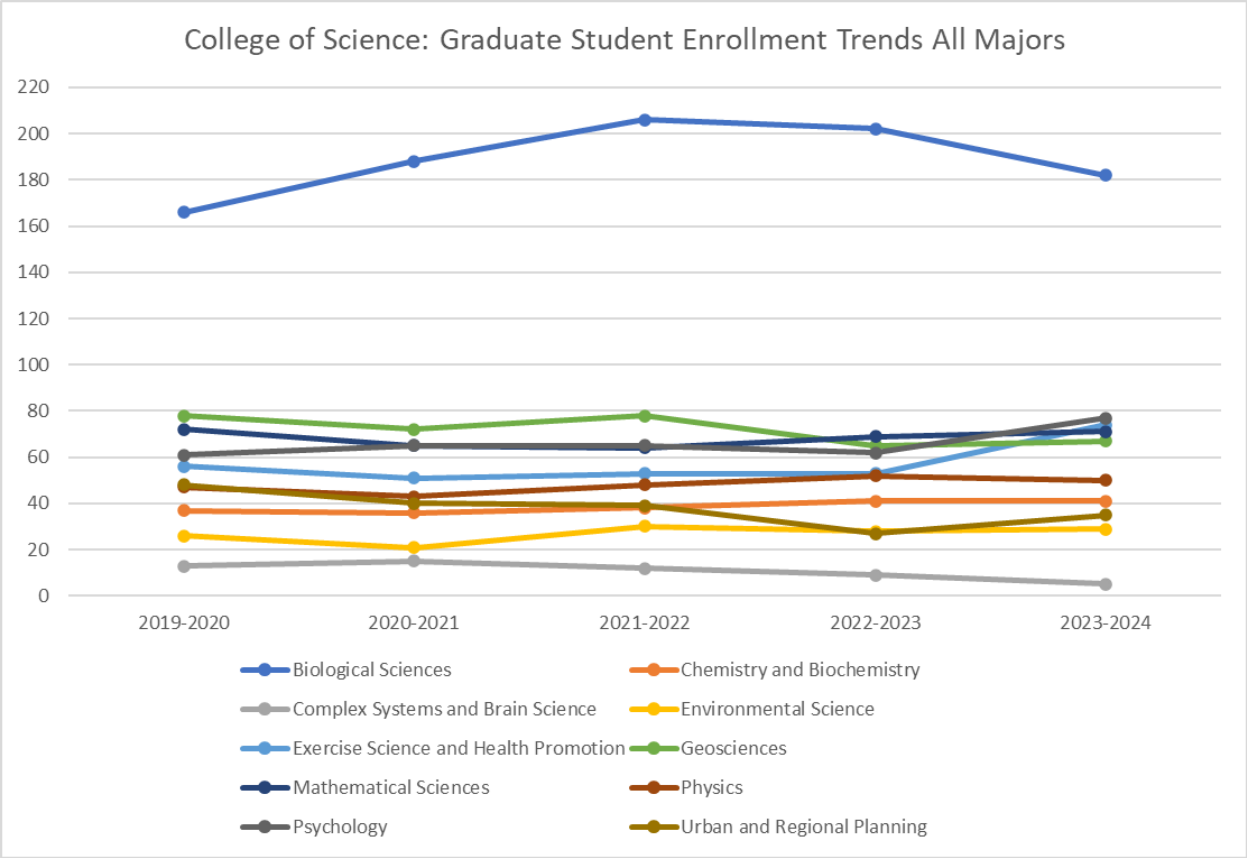
Charles E. Schmidt College of Science had 68% of all DIR students across Florida Atlantic in 2024.

Undergraduate Students Conducting Research (DIR, DIS, RES)



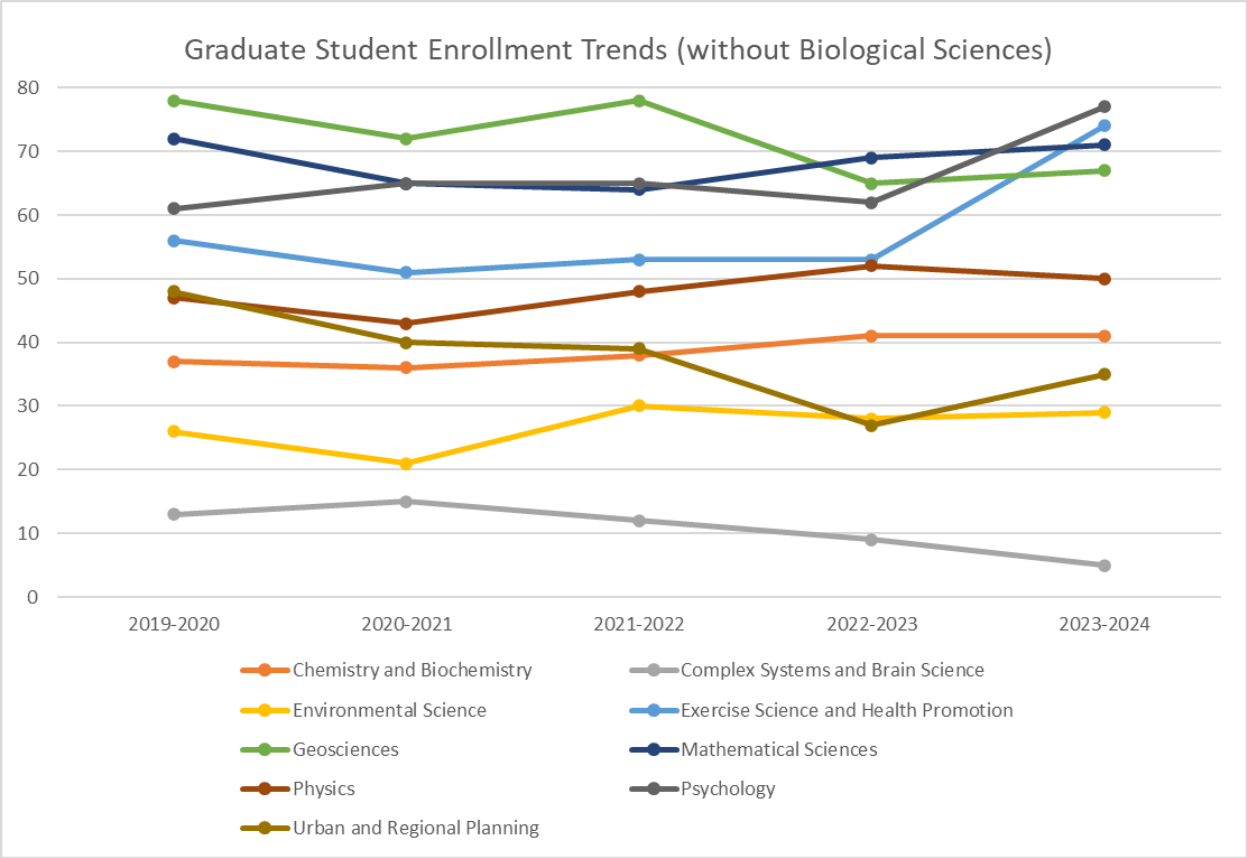
Graduate Students

Enrollment for All Departments



Note: The Marine Science and Oceanography Master's Program enrollment is included with Biological Sciences and the Neuroscience Doctoral Program enrollment is included with Psychology.

Enrollment for All Departments Without Biological Sciences



Note: The Marine Science and Oceanography Master's Program enrollment is included with Biological Sciences and the Neuroscience Doctoral Program enrollment is included with Psychology.

Degrees Awarded: Master's

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Applied Math and Statistics	5	7	1	4	2
Biological Science	24	18	30	27	30
Business Biotechnology	1	5	3	5	4
Chemistry	2	4	3	4	7
Data Science and Analytics		2	1		2
Environmental Science	8	5	11	8	10
Exercise Science and Health Promotion	26	14	20	15	29
Geosciences	15	9	18	12	7
Marine Science and Oceanography	3	11	9	12	15
Mathematics	11	8	7	8	6
Medical Physics	4	7	3	4	2
Physics	1	1	4	4	1
Psychology	6	10	9	16	9
Urban and Regional Planning	13	9	13	10	8

Degrees Awarded: Doctorate

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Chemistry	3	3	3	3	3
Complex Systems and Brain Sciences	0	3	5	3	0
Experimental Psychology	8	6	5	3	9
Geosciences	1	4	4	4	6
Integrative Biology	14	16	7	18	10
Mathematics	6	4	3	5	7
Physics	3	1	4	6	5

Faculty

New Hires

- Kate Carroll, Full Professor, Chemistry and Biochemistry
- Joseph Carzoli, Instructor, Exercise Science and Health Promotion
- Dipayan Das, Assistant Professor, Mathematics and Statistics
- Matthew Edwards, Instructor, Geosciences
- Jacob Francis, Assistant Professor, Biological Sciences
- Han Fu, Assistant Professor, Physics
- Carsten Grupstra, Assistant Professor, Biological Sciences
- John Hall, Instructor, Mathematics and Statistics
- Yichen Hu, Assistant Professor, Physics
- Irem Korucu, Assistant Professor, Psychology
- Natalia Malina, Assistant Professor, Chemistry and Biochemistry
- Simon Pieraut, Assistant Professor, Psychology
- Maciej Stawikowski, Assistant Professor, Chemistry and Biochemistry
- Srinivasa Subramanian, Associate Professor, Chemistry and Biochemistry
- Oscar Alejandro Aleuy Young, Assistant Professor, Biology

Promotions

- William Hahn, Associate Professor, Mathematics and Statistics
- James Jakubow, University Instructor, Psychology
- Erik Johanson, Associate Professor, Geosciences
- Yang Li, Associate Professor, Mathematics and Statistics
- Erik Lundberg, Full Professor, Mathematics and Statistics
- Jason Mireles-James, Full Professor, Mathematics and Statistics
- Francis Motta, Associate Professor, Mathematics and Statistics
- Michelle Papania, Senior Instructor, Exercise Science and Health Promotion
- Zvi Rosen, Associate Professor, Mathematics and Statistics
- Ilyas Yildirim, Associate Professor, Chemistry and Biochemistry

Faculty Retirements and Departures

Retirements

- David Binninger, Biological Sciences
- H. Jay Lyons, Biological Sciences
- Tomas Schonbek, Mathematics and Statistics
- Richard Voss, Mathematics and Statistics

Departures

- Chad Forbes, Psychology
- Eric Prokocki, Geosciences

Research

Manuscripts, Books, and Book Chapters (2024, list in Appendix 1)

- Published peer-reviewed manuscripts: 243
- Manuscripts submitted, in revision or in press: 62
- Published books and book chapters: 3
- Books or book chapters in review or in press: 5
- Conference proceedings: 3

Patents

- Invention disclosures: 3
- Provisional patent applications: 2
- Issued patents: 2

New Funded Grants (FY 2023-2024, list in Appendix 2)

Environmental/Ecology Sciences: 20

- Center for Environmental Studies: 3
- Department of Biological Sciences: 12
- Department of Chemistry and Biochemistry: 1
- Department of Geosciences: 2
- Department of Urban and Regional Planning: 2

Data Science: 7

- Department of Geosciences: 2
- Department of Mathematics and Statistics: 1
- Department of Physics: 2
- Department of Urban and Regional Planning: 2

Biomedical Sciences: 21

- Department of Chemistry and Biochemistry: 7
- Department of Exercise Science and Health Promotion: 2
- Department of Mathematics and Statistics: 5
- Department of Psychology: 6
- Department of Urban and Regional Planning: 1

Education/Training: 21

- Department of Biological Sciences: 11
- Department of Mathematics and Statistics: 4
- Center for Environmental Studies: 1
- Department of Physics: 2
- Department of Psychology: 2
- Department of Urban and Regional Planning: 1

Financial

Education & General Fund Actual Spend (FY 2023-2024)

	Dollars	**Percent**
Faculty & Staff Salaries/Benefits	$28,969,728	79.3%
OPS (GTAs, Adjuncts, Other)	$5,792,384	15.9%
Expenses	$1,751,529	4.8%
Total	**$36,513,641**	100%

Education & General Fund Budget (FY 2024-2025)

	Dollars	**Percent**
Faculty & Staff Salaries/Benefits	$30,473,182	82.8%
OPS (GTAs, Adjuncts, Other)	$5,570,803	15.1%
Expenses	$738,057	2.0%
Total	**$36,782,041**	100%

Tuition (AY 2023-2024)

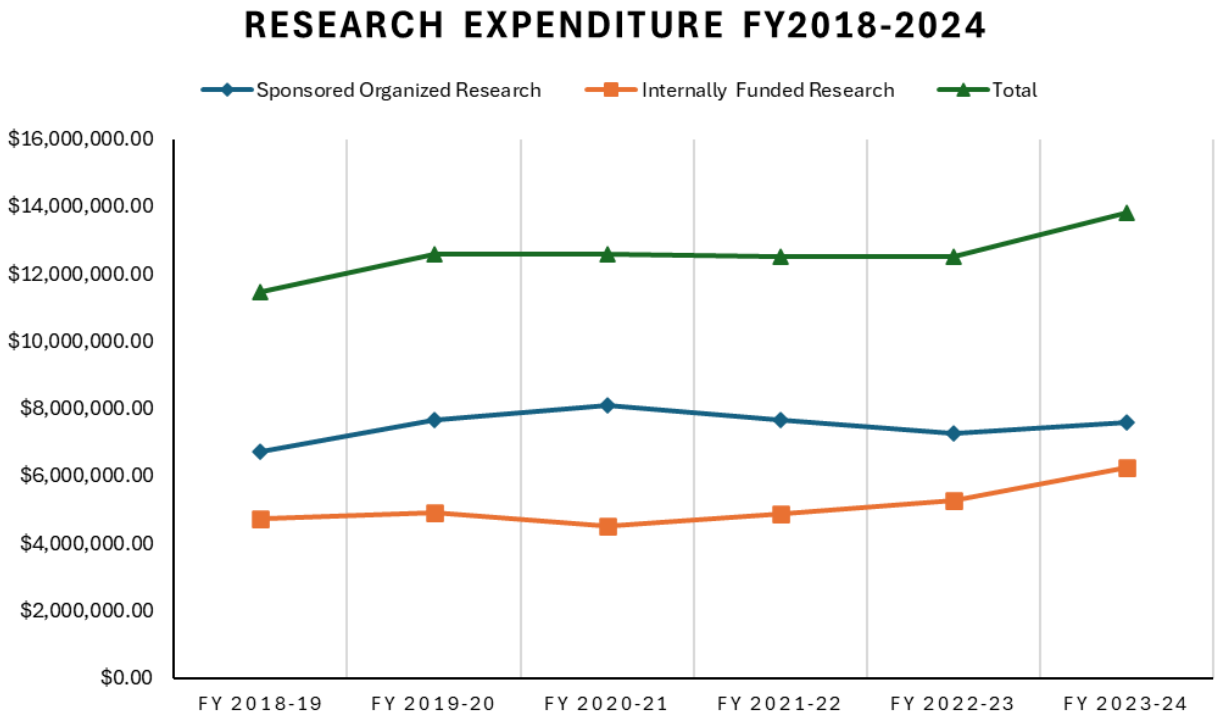
Semester	Gross Tuition	Total Billed Hours	Total Tuition Waivers	Net Tuition
Fall 2023	$20,878,529	93,624	-2,563,062	$18,315,468
Spring 2024	$18,396,723	83,377	-2,361,478	$16,035,245
Summer 2024	$8,053,050	40,538	-730,866	$7,322,182
Total	$47,328,303	217,539	-5,655,406	**$41,672,897**

Tuition and Costs Summer (2021-2024)

	Revenue	Costs	Net Revenue	Total SCH	Cost per SCH
Summer 2024	$5,414,713	$2,446,189	$2,968,524	39,937	61.25
Summer 2023	$5,258,756	$2,635,390	$2,623,367	38,826	67.88
Summer 2022	$4,837,631	$2,378,044	$2,459,587	35,780	66.46
Summer 2021	$5,128,884	$2,527,717	$2,601,167	38,495	65.66

Total Research Expenditures

Total research expenditures FY 2023-2024: $13,829,138



Advancement

Development (2024)

Total: $1,554,046

Donors: 197

- 801 unique gifts
- 324 alumni and friends' gifts
- 20 corporate gifts
- 434 faculty and staff gifts
- 23 foundation gifts

Gift Intervals

- 2 gifts of $250k+
- 4 gifts of $100-250k
- 2 gifts of 50-100k
- 16 gifts of $10-50k
- 173 gifts of $1-10k

Appendix 1: Faculty Publications and Patents

Department of Biological Sciences

Manuscripts published:

1. **Aleuy, O. Alejandro**, Leslie W. Woods, Benjamin J. Padilla, Dennis Richardson, Juliann T. Schamel, Stacy Baker, Martín García-Varela *et al*. The invasive acanthocephalan parasite Pachysentis canicola is associated with a declining endemic island fox population on San Miguel Island. *International Journal for Parasitology* 54, no. 14 (2024): 723-732.
2. Mahon, Michael B., Alexandra Sack, **O. Alejandro Aleuy**, Carly Barbera, Ethan Brown, Heather Buelow, David J. Civitello *et al*. Global change drivers and the risk of infectious disease. *bioRxiv* (2022): 2022-07.
3. Thurman L, Alger K, LeDee O, Thompson L, Hofmeister E, Hudson JM, Martin AM, Melvin T, Olson SH, Pruvot M, Rohr JR, Szymanksi J, **Aleuy O. Alejandro**, and B Zuckerberg. Disease-smart climate adaptation for wildlife management and conservation. *Frontiers in Ecology and the Environment* 22, no. 4 (2024): e2716.
4. Slevin, Morgan C., *et al*. Ornamentation and body condition, but not glucocorticoids, predict wild songbird cloacal microbiome community and diversity. *Oikos* (2024): e10905. https://doi.org/10.1111/oik.10905
5. Wolverton, Heather, and **Rindy C. Anderson**. Syntax in animal communication: its study in songbirds and other taxa. *Journal of Avian Biology* 2024.11-12 (2024): e03258. http://doi.org/10.1111/jav.03258
6. Jensen, Axel, Emma R. Horton, Junior Amboko, Stacy-Anne Parke, John A. Hart, Anthony J. Tosi, Katerina Guschanski, and **Kate M. Detwiler**. Y chromosome introgression between deeply divergent primate species. *Nature Communications* 15, no. 1 (2024): 10398.
7. Linder, Joshua M., Drew T. Cronin, Nelson Ting, Ekwoge E. Abwe, Florence Aghomo, Tim RB Davenport, **Kate M. Detwiler** *et al*. To conserve African tropical forests, invest in the protection of its most endangered group of monkeys, red colobus. *Conservation Letters* 17, no. 3 (2024): e13014.
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6. Ahmad, P. N., Liu, Y., Shah, A. M., Lee, K., Y., **Muhammad, W**., Optimizing Slogan Classification in Ubiquitous Learning Environment: A Hierarchical Multilabel Approach with Fuzzy Neural Networks, Available: SSRN: https://ssrn.com/abstract=4806464 or http://dx.doi.org/10.2139/ssrn.4806464 (2024).

Department of Psychology

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Center for Complex Systems

Manuscripts published

1. Hancock, F., Rosas, F.E., Zhang, M., Mediano, P.A.M., Luppi, A.I., Cabral, J., Deco, G., Kringelbach, M.L., Breakspear, M., **Kelso, J.A.S**., & Turkheimer, F.E. (2024). Metastability demystified—the foundational past, the pragmatic present, and the potential future. *Nature Reviews Neuroscience*
2. Johnson, S.G.B., Schotanus, P.R. & **Kelso, J.A.S.** (2024). Minds and markets as complex systems: An emerging approach to cognitive economics. *Trends in Cognitive Sciences* https://doi.org/10.1016/j.tics.2024.07.003
3. **Kelso, J.A.S**. (2024). One more time with feeling: A personal tribute to Michael Turvey the scientist. Brazilian *Journal of Motor Behavior* https://doi.org/10.20338/bjmb.v17i6.40
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6. Sanchez-Bornot, J., Sotero, R. C., **Kelso, J. A. S**., Şimşek, Ö., & Coyle, D. (2024). Solving largescale MEG/EEG source localisation and functional connectivity problems simultaneously using state-space models. *NeuroImage*, 285, 120458.

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1. Hancock, F., Rosas, F.E., Zhang, M., Mediano, P.A.M., Luppi, A.I., Cabral, J., Deco, G., Kringelbach, M.L., Breakspear, M., **Kelso, J.A.S**., & Turkheimer, F.E. (in press). Metastability demystified—the foundational past, the pragmatic present, and the potential future. *Nature Reviews Neuroscience*
2. Zhang, M. & **Kelso, J.A.S.** (in press). Elements of Coordination Dynamics in the Social Sciences. In *Elgar Encyclopedia of Complexity in the Social Sciences* (Mitleton-Kelly, E., Shapiro, Y., Johnson, J., & Knapp, A. Eds.), Edward Elgar, Pub., Cheltenham, UK.

Center for Environmental Studies

Manuscripts published

1. **Polsky C.**, **Baldwin J.**, Adams D.C., Clark R., Donovan V., Emrich C., Glickman S., Hoctor T., Klizentyte K., Mitchum G., Noss R., O'Brien M., Owosina A., Pate E., Vogel J., Volk M., and Zierden D. The Florida Wildlife Corridor and Climate Change: Managing Florida's Natural and Human Landscapes for Prosperity and Resilience. *Archbold Biological Station: Venus*, Florida; 2024. https://www.archbold-station.org/projects/climate-and-wildlife-corridors/

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1. **Wetherell, G.**, **Thompson, J., L., Mascheri, M. & **Polsky, C.**, (Under Review). Challenging the Concept of Rational Flood Risk Decision-Making: Cultural Influences on Homeownership in the Gulf of Mexico Coastal Zone. *Weather, Climate and Society*.

Center for Urban and Environmental Solutions

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1. **Renne J.L.**, Chava J, Appleyard B, Tolford T. Rent growth near rail stations after the Great Recession. Journal of Sustainable Real Estate. 2024 Dec 31;16(1):2300556.
2. **Hoermann S.**, **Renne J.L.**, Freeman K, Merlin LA, Dzhurova A, Lopez P. Peer Engagement: On Reflecting Student Diversity in a Research Trial. *International Journal of Qualitative Methods*. 2024 May 20;23:16094069241257940.
3. **Merlin L.A.**, Simpson DA, Freeman K, **Hoermann S.**, **Renne J.** Driver vehicle crashes and mental health challenges among commuter college students. Journal of Transport & Health. 2025 Feb 1;40:101944.

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1. **Hoermann S.**, Climate Resilience, *Encyclopedia of Local and Regional Government and Politics*

Conference proceedings

1. **Hoermann S.**, Climate Gentrification Pathways And Resilience: Policy And Planning Discourses In Miami, *Conference proceedings*, Livable Cities: London

Patents

Invention disclosures

1. Afeez Adejola; **James Hartmann**, Methods of Preventing and Treating Endometriosis with Drug Combinations, Invention Number: 2024-012
2. **Ilyas Yildirim**, A Novel In Silico Method to Optimize Template Compounds Targeting RNA: Design of New Drugs for Incurable Diseases, Invention Number: 2024-029
3. Marianne Monet, Eye of the Cerebellum, Invention Number: 2024-034

Provisional patent applications

1. **Renjie Wang**; **Andrew Terentis**, Detection of a Target Ion *via* Ionophore-Based Ion-Selective Sensing Using Surface Enhanced Raman Spectroscopy (SERS), Application Number: 63,562,804
2. Alexis Richaud; **Stephane Roche**; Guangkuan Zhao, Antibody Complementary Determining Region of Heavy-Chain 3 (CDR-H3) Mimics Used as a Peptide Scaffolding Platform for Drug Discovery, Application Number: 63,654,278

Issued patents

1. **Salvatore D. Lepore**, Kenneth Dawson-Scully, Samantha E. Stilley, Krishna P. Yadavalli, Bridged bicyclic compounds and their derivatives as antiepileptic agents and methods of use thereof, PCT publication number: US23/25444
2. **Predrag Cudic**; Jay McLaughlin, Cyclic Peptide Combinatorial Libraries, US Patent Number: 12,129,311

Appendix 2: Newly Funded Grants in FY 2023-2024

PI	Sponsor	Project Title	Start Date	End Date	Total $
Ashley Artese	National Institutes of Health, National Institute of Child Health & Human Development	Remotely Monitored, Mobile health-supported High Intensity Interval Training after COVID-19 Critical Illness (REMM HIIT-Covid19)	9/1/2023	8/31/2024	$45,213.00
Ata Sarajedini	American Astronomical Society	Scientific Editor for the AAS Journals	4/9/2024	1/1/2027	$62,500.00
Brandon Fico	Alzheimer's Association	Arterial Stiffness and Cerebral Hemodynamics Impact on Alzheimer's Disease	7/1/2024	6/30/2025	$65,875.74
Caiyun Zhang	St. John's River Water Management District	REMOTE SENSING AND MAPPING OF PLANT COMMUNITIES FOR THE PRESERVATION OF NATURAL SYSTEMS	1/10/2023	9/30/2024	$50,000.00
	US Army Engineer Research & Development Center	Near Real-Time (NRT) Seasonally Frozen and Thawed Terrain Condition Assessment Using Machine Learning and Multiple Data Sources	2/8/2024	2/7/2027	$341,593.00
Colin Polsky	South Florida Water Management District	Riverwoods Field Lab Maintenance, Security, Technical Support and Environmental Outreach Cooperative Agreement FY23-FY25	10/1/2022	9/30/2024	$144,056.00

	South Florida Water Management District	Riverwoods Field Lab Maintenance, Security, Technical Support and Environmental Outreach Cooperative Agreement FY23-FY25	10/1/2022	9/30/2024	$195,000.00
	US Geological Survey	Greater Everglades Technical Meetings & Research Support	9/1/2021	8/31/2024	$150,000.00
	The Everglades Foundation	Curriculum Partnership for K-12 Education and Outreach Prepared for The Everglades Foundation	1/1/2021	6/30/2024	$15,000.00
Diana Mitsova	Alzheimer's Association	Neighborhood segregation and longitudinal change in brain health measures	2/1/2022	1/31/2025	$3,853.00
Edoardo Persichetti	American Mathematical Society	AMS Young Scholars Program Award	3/21/2024	10/15/2024	$10,000.00
Elan Barenholtz	National Institute of Drug Abuse	Investigating the Ketamine Landscape: Availability, Medical and Recreational Use, and Effects	4/1/2024	2/28/2025	$26,405.00
	National Institutes of Health, National Institute of Drug Abuse	National Drug Early Warning System Coordinating Center	3/1/2022	2/28/2025	$35,906.00
Eric Dumbaugh	Florida Department of Transportation and US Department of Transportation	Refining C3 Context-Classification Criteria for Low-Income and Minority Populations	5/26/2022	12/31/2023	$20,811.26
Erik Lundberg	Simons Foundation	Probabilistic and extremal problems of real and complex polynomials	9/1/2020	8/31/2025	$8,400.00
Frederick Hoffman	Various Agencies – Program Income	Program Income for CGTC55 (2024)	11/1/2023	10/31/2024	$46,640.00

Jeanette Wyneken	Florida Atlantic University Foundation and Upwell	Leatherback Captive Rearing and Release Research Initiative	4/15/2023	1/31/2025	$30,135.00
John Renne	Kresge Foundation	Supplement: Improving Treasure Coast Transportation	1/1/2023	6/30/2024	$25,000.00
	US Department of Transportation	Center for Equitable Transit Oriented Communities (CETOC)	6/1/2023	5/31/2025	$400,000.00
Jonathan Engle	National Science Foundation	NSF LOOPS'24 Conference	4/1/2024	3/31/2025	$10,000.00
Louis Merlin	Florida Department of Transportation	Leveraging mobility data analytics to inform mobility hub development in Florida	2/14/2023	8/31/2024	$49,999.38
	Florida Department of Transportation and US Department of Transportation	Stated Preference Survey of Pedestrian Street Crossings and Big Data Analysis of Suppressed Pedestrian Trips	6/13/2024	8/31/2026	$150,000.00
Lun-Ching Chang	National Institutes of health, National Institute on Aging	Multicultural Community Dementia Screening	2/1/2021	1/31/2025	$55,923.00
	PHS – Administration on Aging	Longitudinal associations between neighborhood greenspace and brain aging in cognitively normal older adults	4/15/2023	1/31/2025	$10,905.82

	National Institutes of Health, National Institute of Neurological Disease/Stroke	Reducing Disparities in Dementia and VCID Outcomes in a Multicultural Rural Population	9/1/2021	8/31/2024	$29,900.00
	National Institutes of Health, National Institute on Aging	Multicultural Community Dementia Screening	2/1/2021	1/31/2025	$57,248.00
Maciej Stawikowski	National Institutes of Health, National Institute of General Medical Sciences	Investigating intracellular cholesterol distribution and trafficking using novel environment-sensitive cholesterol probes	9/1/2022	8/30/2025	$96,584.00
Mare Cudic	National Institutes of Health, National Cancer Institute	Mechanistic insight into tumor-associated MUC1 glycopeptides binding to macrophage galactose-type lectin	1/1/2024	12/30/2026	$443,151.00
	Florida Department of Health	The Role of Glycosylation in AD Pathology	6/13/2024	4/30/2027	$350,000.00
Marianne Porter	National Science Foundation	Supplement: NSF CareerResearch Experience for Post-Baccalaureate Students (REPS) in the Biological Sciences Supplemental Funding Opportunity	6/1/2020	5/31/2025	$126,196.00
Michelle Petersen	US Army Corp of Engineers	Wading Bird Colony Location, Size, and Timing in Lake Okeechobee (CA W912HZ-19-2-0040)	9/26/2021	9/25/2024	$99,787.00
	US Army Engineer Research & Development Center	Dry season prey concentration	4/21/2022	4/20/2025	$212,857.00

Monica Rosselli	National Institutes of Health, National Institute on Aging	1Florida Alzheimers Disease Research Center	5/1/2021	4/30/2024	$38,958.73
	University of Florida	Consensus Conference	7/1/2023	6/30/2024	$30,627.50
	National Institutes of Health, National Institute on Aging	Prospective study of bilingualism and cognitive reserve in the aging brain of Hispano/Latino adults with MCI	2/15/2023	1/31/2025	$525,969.00
	University of Florida	Consensus Conference	7/1/2023	6/30/2024	$23,666.67
Muxin Han	National Science Foundation	Loop Quantum Gravity with Cosmological Constant	5/15/2022	4/30/2025	$49,137.00
Nancy Aaron Jones	National Institute of Health, National Institute of Mental Health	Precursors of Anxiety: The role of Lateralized brain activation and maternal sensitivity	2/1/2022	12/31/2024	$128,898.45
Necibe Tuncer	National Institutes of Health, National Institute of General Medical Science	Identifiability Investigation of Multiscale Infectious Disease Models	9/27/2023	7/31/2024	$47,199.00
Nwadiuto Esiobu	National Institutes of Health, National Institute of Food and Agriculture	Building Capacity in Microbiome Innovation for Plant Health, Soil fertility and Sustainability at a Hispanic Serving Institution	9/15/2023	9/14/2027	$996,250.00
Qi Zhang	Florida Department of Health	Brain Cholesterol Dysregulation in Alzheimers Disease	6/13/2024	4/30/2028	$350,000.00
Rindy Anderson	US Department of Education	MDC Stem Pacts Grant	1/26/2024	9/30/2024	$16,093.53

Robert William Stackman	Max Planck Florida Institute of Neuroscience	Integrative Biology and Neuroscience (IBNS); a Joint Graduate program between the Max Planck Florida Institute and Florida Atlantic University- FALL 2023	8/5/2023	5/3/2024	$325,644.29
	National Institutes of Health, National Institute of Neurological Disease/Stroke	FALL 2023- Ph.D. Graduate Student Research Services- R01NS119503/Raphael Heldman	8/5/2023	12/22/2023	$18,453.34
	National Institutes of Health, National Institute	SPRING 2024- Ph.D. Graduate Student Research Services-	12/23/2023	5/3/2024	$17,376.00

	of Neurological Disease/Stroke	R01NS119503/Raphael Heldman			
	National Institutes of Health, National Institute of Neurological Disease/Stroke	SPRING 2024- Ph.D. Graduate Student Research Services- 1DP2NS132108/Zidan Yang & Shouvik Majumder	12/23/2023	5/3/2024	$33,614.34
	Max Planck Florida Institute of Neuroscience	Integrative Biology and Neuroscience (IBNS); a Joint Graduate program between the Max Planck Florida Institute and Florida Atlantic University- SPRING 2024	12/23/2023	8/2/2024	$271,975.19
	Max Planck Florida Institute of Neuroscience	FALL 2023 MPFI Individual Performance Awards	1/3/2024	5/2/2024	$39,864.20
	Max Planck Florida Institute of Neuroscience	Integrative Biology and Neuroscience (IBNS); a Joint Graduate program between the Max Planck Florida Institute and Florida Atlantic University- SUMMER 2024	5/4/2024	8/2/2024	$224,409.19
	National Institute of Health	Summer 2024- PhD Graduate Student Research Services- R01NS119503- Raphael Heldman	5/4/2024	8/2/2024	$13,048.66
	National Institutes of Health, National Institute of Neurological Disease/Stroke	SUMMER 2024- Ph.D Graduate Student Research Services- 1DP2NS132108- Zidan Yang & Shouvik Majumder	5/4/2024	8/2/2024	$25,244.07
	Max Planck Florida Institute of Neuroscience	SPRING & SUMMER 2024 MPFI Individual Performance Awards	6/21/2024	8/2/2024	$53,009.88
Salvatore Lepore	Florida Atlantic University Foundation and Prolindox Inc	Prolindox Foundation	5/10/2023	6/30/2026	$10,000.00

Sang Hong	DAQSCRIBE INC	Feasibility test for the effect of transcranial electric brain stimulation on the enhancement of cognitive flexibility	2/1/2024	1/31/2027	$297,305.00
Sarah Milton	Florida Atlantic University Foundation and Inwater Research Group, Inc.	Physiology and Health Studies of Green Sea Turtles in Southeast Florida	10/1/2021	9/30/2024	$6,262.50
	Florida Atlantic University Foundation and Inwater Research Group, Inc.	Physiology and Health Studies of Green Sea Turtles in Southeast Florida	10/1/2021	9/30/2024	$6,262.50
	Florida Atlantic University Foundation and Inwater Research Group, Inc.	Physiology and Health Studies of Green Sea Turtles in Southeast Florida	10/1/2021	9/30/2024	$6,262.50
	Sea Turtle Conservancy	Potential role as endocrine disruptors of chemicals associated with plastic	5/30/2024	4/30/2025	$10,408.65
Shi Bai	National Science Foundation	CAREER: Concrete Hardness in Lattice-based Cryptography	5/15/2021	4/30/2026	$105,073.00
Stephane Roche	National Institutes of Health, National Cancer Institute	Covalent PD1 Antagonists: Discovery of Protein-Protein Interaction (PPI) Inhibitors in Cancer Immunotherapy	12/5/2023	11/30/2024	$73,221.00

	Florida Department of Health	Discovery of PD1/PDL1-Targeted Antibody Mimics in the Treatment of Melanoma: From Basic Science to Clinical Application	6/12/2024	6/11/2025	$347,194.00
Stephen Kajiura	Bonefish & Tarpon Trust	Aerial Surveys to Estimate Abundance of Atlantic Tarpon during Annual Migration(Key Biscayne to Bahia Honda Channel)	3/25/2024	8/9/2024	$54,716.00
Vanessa Moreira Camara Fernandes	National Science Foundation	Can Soil microbes maximize dryland Resistance to Climate Disruption?	7/15/2024	6/30/2027	$533,020.00
Veronika Kuchta	Mathematical Association of America	Young Cryptographers Summer Camp	5/3/2024	5/31/2025	$6,000.00
Vivian Merk	Microscopy Society of America	Investigating strontium sulfate crystals grown with polyanionic polymers using electron microscopy and vibrational spectroscopy (Undergraduate Research Scholarship Program) – Celina Detwiler	3/1/2024	12/31/2024	$1,250.00
Wazir Muhammad	Precess Medical Derivatives, Inc.	Deciphering digital twins of cancer patients for their personalized treatments	4/1/2024	3/31/2027	$701,000.00
Xavier Comas	US Department of Energy	MACROCOSM: Monitor and Constrain tROpical eCOsystem Sensitivity to Moisture	9/1/2022	8/31/2024	$81,282.00

	US Department of Energy	Predicting hot spots and hot moments of biogenic gas accumulation and release in a subtropical ecosystem using airborne ground-penetrating radar (GPR)	9/1/2021	8/14/2025	$30,767.33
Xing-Hai Zhang	Penta 5 USA LLC	Assessment of antioxidant effect of hydrogen- and taurine-fortified water	6/1/2024	12/31/2025	$23,000.00

Appendix 3: Awards and Recognition

Faculty, Postdocs, and Staff

Schmidt College of Science faculty earned acclaim throughout 2024. Selected highlights include:

- J.A. Scott Kelso, Ph.D., the Glenwood and Martha Creech Eminent Scholar Chair in Science and founder of FAU's Center for Complex Systems within the Charles E. Schmidt College of Science, was awarded a prestigious Global Chair by the University of Bath.
- Gregg Fields, Ph.D., professor in the Department of Chemistry and Biochemistry, and university interim vice president for research, was selected as a Fulbright Specialist Program grantee by the United States Department of State's Bureau of Educational and Cultural Affairs for his expertise and contributions in disease discovery and treatment.
- Predrag Cudic, Ph.D., professor in the Department of Chemistry and Biochemistry, was one of four researchers who were inducted into the National Academy of Inventors chapter at Florida Atlantic University.
- Brett Laursen, Ph.D., professor in the Department of Psychology, was selected as Scholar of the Year at the professor level for scholarly and creative work at the 55th annual Honors Convocation.
- Korey Sorge, Ph.D., scientist in the Department of Physics, received the Online Faculty Award at the 55th annual Honors Convocation.
- Tito Sempertegui, Ph.D., senior instructor Department of Chemistry and Biochemistry, and Donna Marion, Ph.D., senior instructor Department of Psychology, were selected as recipients of the Excellence and Innovation in Undergraduate Teaching award at the 55th annual Honors Convocation.
- Several faculty members from the Charles E. Schmidt College of Science were accepted to attend the American Association of Colleges and Universities' (AAC&U) 2024 Institute on Reframing Institutional Transformation to Empower Non-Tenure Track STEM Faculty: Evonne Rezler, Ph.D.; Korey Sorge, Ph.D.; Papiya Bhattacharjee, Ph.D.; Donna Marion, Ph.D.; and Tito Sempertegui, Ph.D.
- At the second annual Authors & Artists event, hosted by the Office of the Provost and University Libraries, three college faculty were recognized: Ashkaan Fahimipour, Ph.D., assistant professor, Department of Biological Sciences; Vivian Merk, Ph.D., assistant professor, Department of Chemistry and Biochemistry; and Wolfgang Tichy, Ph.D., professor, Department of Physics.
- Fall 2024 Schmidt College of Science Excellence Award winners: Excellence and Innovation in Undergraduate Teaching and Advising, Angelica Hotiu, Ph.D.; Researcher of the Year, Vivian Merk, Ph.D. (assistant professor level) and Jeanette Wyneken, Ph.D. (professor level); Scholar of the Year, Xiaolang Zhang, Ph.D. (assistant

professor level), Muxin Han, Ph.D. (associate professor level), and Eric Dumbaugh, Ph.D. (professor level); Staff Service Award, Kimberly Vardeman.

- Spring 2024 Schmidt College of Science Excellence Award winners: Excellence and Innovation in Undergraduate Teaching and Advising, Donna Marion, Ph.D. (senior instructor), Tito Sempertegui, Ph.D. (senior instructor); Researcher of the Year, Caiyun Zhang, Ph.D. (professor level), Maré Cudic, Ph.D. (associate professor level); Scholar of the Year, Weibo Liu, Ph.D. (associate professor level), Brett Laursen, Ph.D. (professor level); Excellence in Faculty Service Award, Maria Fadiman, Ph.D.; Excellence in Staff Service Award, Stacee Caplan, Ph.D.
- Weibo Liu, Ph.D., associate professor in the Department of Geosciences, was one of two inaugural winners of the School of Environmental, Coastal, and Ocean Sustainability (ECOS) Research Award.
- Weibo Liu, Ph.D., associate professor in the Department of Geosciences, and Vivian Merk, Ph.D., associate professor in the Department of Chemistry and Biochemistry, were named recipients of the School of Environmental, Coastal, and Ocean Sustainability's (ECOS) 2024 Publication Grant.
- Mare Cudic, Ph.D., associate professor in the Department of Chemistry and Biochemistry, was one of seven researchers invited to present at the National Cancer Institute's (NCI) Division of Cancer Biology (DCB) R15 Investigator Workshop.
- The National Strength and Conditioning Association (NSCA) honored B. Sue Graves, Ed. D., FACSM, FISSN, associate professor, Department of Exercise Science and Health Promotion, with the organization's 2024 Impact Award.
- Ata Sarajedini, Ph.D., was named a 2024 American Astronomical Society Fellow.
- FAU Art of Science Winner: First Place, "All's Fair in Love and War," Jacob Francis, Ph.D., assistant professor in the Department of Biological Sciences.
- FAU Art of Science Winner: Faculty in the Lab Award, "Where Is It?" Maciej Stawikowski, Ph.D., assistant professor in the Department of Chemistry and Biochemistry.
- FAU Art of Science Winner: Faculty in the Field Award, "Western Veil Nebula," Rob Gross, Ph.D., instructor in the Department of Physics.
- FAU Art of Science Winner: Honorable Mention Award, "Arm Signals," by Chelsea Bennice, Ph.D., postdoctoral fellow
- Merike Lang, Ph.D., a postdoctoral research fellow in the Schmidt College of Science, who investigates the neuroprotective effects of bilingualism on normal and abnormal aging, won the Lightning Presentation Round at the Alzheimer's Association's Latinos and Alzheimer's Symposium in San Diego.

Graduate Students

- FAU Three Minute Thesis (3MT®) Championship Winners: Kayla Ahlness, Dr. Eric H. Shaw 3MT® Championship Endowed Award; Jordan Thompson, 3MT® Championship Second Runner-Up and People's Choice Award.

- Winners of the 15th annual Graduate and Professional Student Association (GPSA) Research Day from the Schmidt College of Science: Biological & Chemical Sciences First Place Winner, Gabrielle Pantoni; Arts Education and Social Sciences Second Place Winner, Morgan Cope; Physical Sciences and Mathematics First Place Winner, Abiola Adebiyi, and Second Place Winner, Matan Thapa Chhetri.
- FAU Art of Science Winner: Third place, "Eye of the Cerebellum," by Marianne Charlene Monet.
- FAU Art of Science Winner: Honorable Mention Award, "Octo-chainsaw," by Colleen Hecker.
- FAU Art of Science Winner: Honorable Mention Award, "Mysterious Fractal Flow," by Michael Ostroff.
- FAU Art of Science Winner: Honorable Mention Award, "Porpoise with a Purpose," by Jamie Knaub.
- Graduate students Zeke Tuszynski and Sarah F. Webb were named the inaugural recipients of the 2024 Guy Harvey Fellowship for Marine Science Research by the Guy Harvey Foundation.
- First author and doctoral student, Jamie Knaub, had her research published in the journal Royal Society Open Science that uncovered the mechanics of tail-whipping in thresher sharks.
- Schmidt College of Science Graduate Research Support Scholarship recipients: Samantha Trail, Lindsey Riera-Gomez
- Schmidt College of Science Andrew and Marjorie Buglione Endowed Scholarship recipients: Katia Lorissaint, Maria Eduarda Menezes Vezzi, Rita Hopkins
- Schmidt College of Science Dean Perry Graduate Scholarship recipient: Emily Turla
- Leticia Sabio was named Student Planner of the Year by the Florida Chapter of the American Planning Association.
- Heather Seaman was among the Sea Turtle Grants Program awardees at the Marine Science Lab who received funding to support research that will help researchers determine if the chemicals associated with plastics might interfere with sea turtle reproduction.
- Jenna Lutes was named one of six New Jersey residents to receive the 2024 Russell Myers Scholarship from The Land Conservancy of New Jersey to support her research that focuses on conducting annual breeding wading bird monitoring on Lake Okeechobee and studying wading bird prey in the wetlands that surround the lake.
- Department of Psychology Susan T. Dewar Memorial Award recipient: Molly Selover
- Department of Psychology Jack B. Walker Memorial Scholarship recipient: Jordan Thompson.

Undergraduate Students

- Schmidt College of Science Soar-in-4 Scholar Sadine Al-Farauki and Seymour Haque were named the 2024 recipients of the Golberg Scholarship.

- FAU Student Talon Leadership Award recipient: Zariah Walker.
- Several students were recognized at the 55th annual University Honors Convocation: University Scholar: Gustavo Mundin; Hersker, Shaw, Gosser Honor Society of Phi Kappa Phi Scholarship Award: Eden Adera; Undergraduate Researcher of the Year: Joseph Swaress.
- 2024 Office of Undergraduate Research and Inquiry Research Day Oral/Performing Arts Symposium winners from the Schmidt College of Science. Basic Sciences: First Place Student Presenter, Gustavo Mundim; Second Place Student Presenter, Seymour Haque; Behavioral, Educational & Social Sciences: First Place Student Presenter, Isabella Klopukh; Environmental, Ecological & Marine Sciences: First Place Student Presenter, Emma Pawlik; Health & Medical Sciences: First Place Student Presenter, Abhishikta Srigiriraju; Second Place Student Presenter, Hannah Thomas.
- FAU Art of Science Winner: People's Choice Award, "Serenity in Spots" Shreyansh Patel.
- Winners of the second annual Schmidt College of Science Undergraduate Student Poster Competition, sponsored by the Dr. Eric Shaw Excellence in Science Undergraduate Research Award: $1,000 First Place Winner, Nicholas McInchak; $600 Second Place Winner, Teagan Duenkel; $400 Third Place Winner, Adrianna Tran.
- Winners of the third annual Schmidt College of Science Undergraduate Student Poster Competition, sponsored by the Dr. Eric Shaw Excellence in Science Undergraduate Research Award: $1,000 First Place Winner, Hannah King; $600 Second Place Winner, Noor E Jannat Neha; $400 Third Place Winner, Valeria Falvella.
- WLW-ECOS Student Success Scholarships were awarded to 11 students, and four students were awarded the WLW-ECOS Semester by the Sea Scholarship.
- The 21st annual Schmidt College of Science's Future Doctors' Reception celebrated 36 members of the class of 2024 who were honored at the annual event that recognizes students who have been admitted to health professional graduate programs.
- 72 students were accepted into medical school or health professional programs (AY 2023-2024).
- Students Aisha Bashir, Aisha Mirza, Detchina Rameau, Abhi Srigiriraju, and Alexa Theander each earned awards to fully fund their FAU Medical College Admissions Test (MCAT) preparatory course fees from the Douglas and Virginia Stewart Foundation and the FAU Student Government.
- Sarajedini Family Endowed Scholarship: Kaylia Cooper, Sydney Crowe.
- Charlotte Fieffe and Kaylia Cooper were the first two undergraduate students accepted into the Soar-in-4 Medical School Pathway program – a new collaborative pathway program for outstanding Schmidt College of Science Soar-in-4 Scholars.
- Gustavo Mundim and Alexis Crowder were recognized by the American Society of Biochemistry and Molecular Biology (ASBMB) for their "mastery" level achievements on the organization's exam.

Alumni

- **Beth Bowers, Ph.D., ’23**, senior author and a postdoctoral researcher at the Smithsonian Environmental Research Center, had the results of her study, based on her research as a doctoral candidate, published in the journal Methods in Ecology and Evolution, which reveals a new movement model that improves the accuracy of acoustic tracking in marine animals.
- **Richard DiMarchi**, Ph.D., **B.S. ’74**, was honored with the prestigious 2024 Mani L. Bhaumik Breakthrough of the Year Award by the American Association for the Advancement of Science (AAAS), celebrating his groundbreaking research of obesity treatment drugs.
- **Abigail Eccles, B.A. ’24**, former NASA intern, now works as a junior geospatial information systems analyst at Leidos in Orlando.
- **Kayla Harris, B.A. ’23**, landed an impactful job as a sea turtle field technician for Ecological Associates, Inc., in Delray Beach, Florida.
- **Matt S. Stock, Ph.D., ’06**, was named the 2024 recipient of the Journal of Strength and Conditioning Research (JSCR) Editorial Excellence Award.
- **Emma Susi, B.S. ’23**, took first place at the 2024 Florida Atlantic University WAVE Competition, and she was awarded the Dr. Eric H. Shaw FAU Wave Excellence in Innovation Award and a cash prize of $2,000 for her Sensory Personalized EEG Assistive Communication (SPEAC), a non-invasive, assistive communication brain-computer interface.
- **Carly Yoost, B.S. ’09**, received the 2024 Schmidt College of Science Distinguished Alumni Award during Florida Atlantic University Alumni and Community Engagement’s annual Hall of Fame & Distinguished Alumni Award Ceremony and Reception on April 25.

Appendix 4: Outreach and Engagement

College-wide

- Frontiers in Science Public Lecture Series included two unique panel discussions and Q&A sessions on "What's Happening to Water Quality in Florida?" (Jan. 25) and "How Can the Florida Wildlife Corridor Support Resilience?" (Feb. 22).
- Schmidt College of Science hosted the second annual Science Fest Apr. 12 throughout the Breezeway to more than 1,000 visitors, including area high school and middle school students, community members, FAU undergraduate and graduate students, who enjoyed science-related exhibitions and a student poster competition that provided $2,000 to the top poster presenters sponsored by the Dr. Eric Shaw Excellence in Science Undergraduate Research Award.
- Hundreds of students attended the annual Science Social, and dozens participated in the Dr. Eric Shaw Excellence in Science Undergraduate Research Poster Competition on Oct. 17, hosted by the Schmidt College of Science's Office of Student Services and Advising and Office of Pre-Health Professions.
- The College hosted a special live panel discussion of WLRN's Bright Lit Place podcast on "Everglades Restoration Challenges and Climate Impacts" Nov. 19, moderated by Jenny Staletovich, a South Florida environmental reporter.
- Nat and Dorothy Hyman Science Lecture (Nov. 21): "Is Artificial Intelligence Going to Figure Out Life Itself?" with Carl Zimmer, an award-winning New York Times columnist and author on Nov. 21.

Center for Environmental Studies

- Riverwoods Field Laboratory offered a range of outreach activities, including boat eco-tours where visitors learned about the success of the Kissimmee River Restoration Project, which attracted 420 guests on 34 unique tours; as well as nine student field studies on the floating laboratory with 143 middle school to university level students, and one boat tour for South Florida Water Management District workshop with 13 guests. The Center for Environmental Studies also hosted three interagency workshops at Riverwoods Visitor Center.
- The Robert J. Huckshorn Arboretum located on the Jupiter campus, highlights our Florida ecosystems by featuring native trees and shrubs, and offered 16 learning opportunities and events serving just over 300 participants. These events included: butterfly and bird walks, Arbor Day, National Day on Writing, three biodiversity classes and several campus club activities.

Department of Biological Sciences

- FAU Marine Science Lab at Gumbo Limbo Nature Center Visitors' Gallery: 220,000+ visitors, and the lab exhibited at 15 community events.

Department of Geosciences

- Professor of geosciences, National Geographic Emerging Explorer, and TEDx speaker, Maria Fadiman, Ph.D., delivered a free community talk on "Global Conservation of Knowledge and Ecosystems" on April 23 at the Jupiter campus.

Center for Urban and Environmental Solutions

- Visualizing Sea Level Rise Experiences in West Palm Beach, led by the FAU Center for Urban and Environmental Solutions provided community events throughout 2024 to showcase the results of sea level rise and storm surge to the public

Department of Exercise Science and Health Promotion

- FAU-Well exercise program for older adults now in 36th year offers a well-rounded health-fitness program as a free community service for older adults, providing safe, supervised exercise based on individualized assessments.
- B. Sue Graves, Ed.D., FACSM, FISSN, director of the FAU-Well Program and associate professor of Exercise Science and Health Promotion, spoke at the Toby and Leon Cooperman Sinai Residences in Boca Raton on Oct. 22 on "Successful Aging."

Department of Mathematics and Statistics

- The International Symposium on Artificial Intelligence and Mathematics (ISAIM, 2024) & International Workshop on Combinatorial Image Analysis (IWCIA'24) was held Jan. 8-10.
- FAU AMC8 Middle School Math Day was held on Jan. 20
- The Department hosted the 55th Southeastern International Conference on Combinatorics, Graph Theory & Computing on the Boca Raton campus, bringing together academics, researchers, and students from around the world on Mar. 4-8.
- FAU High School Math Day brought high school students to the Boca Raton campus for mathematical contests on Mar. 9.
- The Florida Women in Math Day was held on Apr. 21 on the Boca Raton campus by the Department of Mathematics and Statistics and the FAU graduate student chapter of the Association for Women in Mathematics.
- FAU Young CryptograpHers Summer Camp welcomed 50 talented female high schoolers from Aug. 5-9 to learn about cybersecurity from expert faculty and industry professionals (hosted in the Gruber AI Sandbox).
- Math Circle for Middle School Students is held bi-weekly each fall term and offers friendly competitions and games.
- The Master of Science in Teaching Mathematics program, together with Florida Atlantic's Stiles-Nicholson STEM Teacher Academy (SNSTA), hosted the annual Florida GeoGebra Conference on Feb. 19 for STEM educators.
- American Mathematics Competition - High School Students was held Nov. 8 and 14.

Department of Physics

- More than1,000 members of the greater community and the university gathered to watch a rare partial solar eclipse on Florida Atlantic's Boca Raton campus on April 8, hosted by the Department of Physics and the department's Astronomical Observatory.
- FAU's Astronomical Observatory has Open Viewing Nights each month throughout the year where the public can view the night sky from the observatory telescope and learn about the cosmos.
- Acclaimed physicist and New York Times bestselling author Carlo Rovelli, Ph.D., lectured on "White Holes: Inside the Horizon," hosted by the Department of Physics on May 9.
- The Department of Physics hosted its annual Pumpkin Drop and Physics Carnival on Oct. 25.
- Emeritus Professor of Physics Nathan Dean, Ph.D., and former dean of the College, released a new book that offers a simple and healthy way to permanently lose weight, titled "Exponential Weight Loss: Easier than Dieting, and It Works!"

In Partnership with the College and Other Joint Activities

- The Office of Pre-Health Professions hosted the Pre-Health Professions Entrepreneurship Summit on the Boca Raton campus Oct. 17-19, which provided undergraduate students with insights from local doctors about how to run their own medical practice and explore careers across the medical field.
- Lake Worth LagoonFest Nov. 2: The event had promotional exhibitions from the FAU Marine Science Lab, Florida Atlantic Biomechanics (FAB) Lab, Shark Lab, and the Department of Geosciences.
- The Science Olympiad events occur each spring and attract hundreds of elementary, middle school, and high school students to enter science-based competitions through numerous disciplines. The high school and middle school competitions took place Feb. 24, and the elementary school competitions took place Apr. 27.

Gruber AI Sandbox

- FAU Mindfest Feb. 1-2: The gathering of world leaders in the fields of artificial intelligence, philosophy, and neuroscience included talks within the Gruber AI Sandbox and included faculty from the Schmidt College of Science.

Appendix 5: Media Relations

International and National Media

Department of Biological Sciences

- The New York Times: Fear the Tails, Not the Jaws, of These 'Wierdo' Sharks - The smack of the thresher's tail stuns a few unlucky fish, which the shark then gobbles up, with Marianne Porter, Ph.D.
- National Science Foundation video showcases NSF-supported research by Schmidt College of Science scientists who aim to understand the mechanisms behind the thresher sharks' vertebrae that allows for incredible body-bending acrobatics
- Stephen Kajiura, Ph.D., was featured as a shark expert in a USA Today article, about a possible rise in shark attacks.
- National Geographic featured professor in the Department of Biological Sciences, Stephen Kajiura, Ph.D., in the eight-episode series Shark Attack 360. Episodes included various faculty and students.
- Highland News Sun: A 2024 report by Archbold and Florida Atlantic University, funded by the Live Wildly Foundation, described the relationship between climate and a statewide effort to protect wildlands and working landscapes known as the Florida Wildlife Corridor.
- Fortune Well: Your Apple Watch or Fitbit May Be a Breeding Ground for E. coli and Staph Bacteria, with Nwadiuto Esiobu, Ph.D.
- Mongobay News: Camera-trap Study Brings the Lesula, Congo's Cryptic Monkey, Into Focus. To figure out how the lesula uses the forest, Schmidt College of Science researchers decided to use camera traps, with graduate student Junior Amboko, one of the study's authors.
- Eco Magazine republished the Florida Atlantic article on an internationally collaborative study co-authored by Jeanette Wyneken, Ph.D., that reveals how local weather influences hatchling development, showing that it has a more profound effect than changes in air temperature.
- CBC article, "A Pair of Great White Sharks and a Sea Turtle Are Basking Off the Coast of Newfoundland," features graduate student Derek Aoki and his tracking device.

Department of Chemistry and Biochemistry

- Nature published Chemistry faculty's study on rheumatoid arthritis that is examining if the autoantibodies that RA patients produce contribute to the initiation or progression of the disease: Gregg Fields, Ph.D., and Roma Stawikowska, Ph.D.

Department of Exercise Science and Health Promotion

- AP News and Muscle & Fitness featured research from Michael Zourdos, Ph.D., regarding a study that analyzed how training close to failure or not impacts muscle

growth and strength; this article has been re-published in more than 50 national news outlets to date.

Department of Physics

- Explore Scientific: "One Man's Journey Into Astrophotography," with Instructor Rob Gross.

Department of Psychology

- Newsweek, U.S. News & World Report, Scientific American and Science Mag, along with CBS News Boston, featured coverage of a study led by Brett Laursen, Ph.D., that showed parents who prohibit friendships, particularly mothers, can worsen the child's behavior, and it may harm their social standing and lead to greater adjustment difficulties.
- Neuroscience News: Child Signals: Vocal Cues Shape Adult Perceptions with David Bjorklund, Ph.D.
- Phys.org: 'Baby talk:' Decoding How Children's Vocal and Cognitive Cues Sway Adults with David Bjorklund, Ph.D.

Center for Environmental Studies

- NBC News interviewed Colin Polsky, Ph.D., about a FAU survey that found 90% of Floridians believe that climate change is happening and that belief in human-caused climate change has surged. The study was mentioned in numerous articles following the recent bill that deletes "climate change" from Florida law, including: The Washington Post, NPR News, MSN.com, among many other outlets.
- Florida Atlantic University's 2024 The Florida Wildlife Corridor and Climate Change report was referenced in the Highland News-Sun article, "What is Climate Smart Management? The Role of Stewardship in a Changing Climate."

Center for Complex Systems and Brain Sciences

- Scott Kelso, Ph.D., and Aliza Sloan, Ph.D., co-authored an article for Scientific American on their groundbreaking research that provides the first quantified observations of the "birth" of purpose in human infants.

Center for Urban and Environmental Solutions

- Fast Company interviewed John Renne, Ph.D., for the article "Why Disaster Evacuation in the U.S. Is So Difficult."
- John Renne, Ph.D., served as an expert on the WUSF NPR podcast, "Rebuilding and resiliency after Hurricane Milton."

Regional and Local Media

Center for Environmental Studies

- The "Florida Climate Resilience Survey" made front-page news in the South Florida Sun Sentinel and was also featured in the Palm Beach Post and NPR Here & Now Anytime.
- South Florida Sun Sentinel: "Florida in 50 Years: Study Says Land Conservation Can Buffer Destructive Force of Climate Change" ran coverage of the College's report that expressed that the wildlife corridor – if completed – will not only allow wildlife to survive in the coming decades, it will make climate change less destructive to humans.
- WPTV interviewed John Baldwin, Ph.D., who discussed how preserving the land detailed in the Florida Wildlife Corridor study benefits Florida residents across the state.

Department of Biological Sciences

- Jeanette Wyneken, Ph.D., joined Chelonia Cast for their podcast episode, "Anatomy, Physiology, and Behavior of Sea Turtles."
- CBS12, ABC Action News and Florida Today interviewed Stephen Kajiura, Ph.D., as a shark expert.
- Postdoctoral fellow Lauren Simonitis, Ph.D., spoke with Science Friday about her shark nose research and what questions remain about shark snoots.

Department of Exercise Science and Health Promotion

- South Florida Sun Sentinel*:* Michael Zourdos, Ph.D., discussed the myth that 10,000 steps a day is a universal goal.

Department of Physics

- The Palm Beach Post, South Florida Sun Sentinel, and the Boca Raton Tribune were among the local media outlets that covered the 2024 eclipse viewing at Florida Atlantic.

Department of Psychology

- Your South Florida PBS: Elan Barenholtz, Ph.D., discussed how the power of AI is being used to develop innovative ways to study the brain.

Appendix 6: Government Relations

- Throughout the fall semester, several Palm Beach County officials visited the Charles E. Schmidt College of Science's Marine Science Laboratory at the Gumbo Limbo Environmental Complex in Boca Raton. Professor Jeanette Wyneken, Ph.D., led lab tours for District 4 Commissioner Marci Woodward, former District 3 Commissioner Michael A. Barnett, District 2 Commissioner Gregg Weiss, and former District 7 Commissioner Mack Bernard, who was recently elected to the Florida Senate (District 24).
- Dean Valery Forbes joined a delegation of students, faculty, and staff for FAU Day at the Capitol as part of the university's commitment to maintain strong connections between elected officials in Tallahassee and Florida Atlantic in Spring 2024.