

MELISSA J. WALSH, PH.D.

Associate Chair for Academics, Department of Biology

Professor of Instruction | Academic Leadership | Student and Faculty Success

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EXECUTIVE PROFILE

Academic administrator and educator with more than six years of senior departmental leadership in a large, high-enrollment biology program at a diverse urban R1 university and Hispanic-Serving Institution. Lead academic operations serving more than 10,000 students annually and approximately 1,800 undergraduate Biology majors. Portfolio spans curriculum and program development, enrollment and instructional planning, faculty affairs, assessment and accreditation, budget and resource stewardship, and student success.

Known for building data-informed systems that align curriculum, course and program learning outcomes, instructional design, and student support. This work has improved success in gateway STEM courses, expanded accessible online and accelerated pathways, reduced student costs, and strengthened progression from entry-level biology through undergraduate and graduate capstones.

ADMINISTRATIVE AND ACADEMIC LEADERSHIP

Associate Chair for Academics, Department of Biology

2020–Present

University of Texas at Arlington

- Direct academic planning and instructional operations across undergraduate, master's, and doctoral programs, including responsibility for all teaching assignments, multi-year course scheduling, instructional staffing, and allocation of teaching resources.
- Coordinate course capacity, modality, and staffing with advising, enrollment management, and college and university leadership to support progression and timely degree completion.
- Use enrollment, success, equity, and learning-outcome data to guide curriculum, staffing, budget, and student-success decisions.
- Oversee academic matters including grievances, appeals, incompletes, and academic-integrity concerns; represent the department in college and university planning and policy discussions.
- Contribute to stewardship of the department's approximately \$7 million total budget, with direct responsibility for instructional allocations supporting personnel, laboratories, course delivery, and student-success initiatives.

FACULTY AFFAIRS AND SUCCESS

- Support faculty recruitment, appointment, onboarding, teaching assignments, professional development, mentoring, evaluation, and advancement, with particular responsibility for teaching and instructional effectiveness.
- Lead or participate in faculty searches; helped hire nine non-tenure-track faculty and create three new instructional positions.
- Conduct annual performance evaluations and provide structured mentoring in teaching effectiveness, inclusive pedagogy, assessment, and instructional technology.
- Chair the Department of Biology Grievance Committee and mediate faculty and student concerns in accordance with university and department policy.

Graduate Advisor, M.S. in Biology

2025–Present

University of Texas at Arlington

- Review applicants and advise thesis and non-thesis students on course selection, degree milestones, laboratory placement, graduation requirements, and completion timelines.
- Coordinate with faculty mentors and graduate-program staff to support student progress and successful completion.

SELECTED LEADERSHIP ACCOMPLISHMENTS

Student Success at Scale

- Led data-informed redesign of BIOL 1441, a gateway Cell and Molecular Biology course enrolling approximately 1,700 students annually. Aligned curriculum, assessments, and learning outcomes with student readiness and structured opportunities to learn; Fall 2023 course success reached 83%, compared with a historic DFW rate of 35–45%.

- Extended the same success framework across other high-enrollment courses, including Anatomy and Physiology I and II, where course success has exceeded 80%.
- Invited to present this student-success model at a University of Texas System student-success convening; work contributed to the UT System Exemplary Student Pathways initiative supported by the Lumina Foundation.

Access, Affordability, and Academic Pathways

- Led department-wide development and adoption of Open Educational Resources, reducing student textbook costs by more than \$300,000 annually.
- Moved selected non-majors core courses online and into accelerated eight-week formats, expanding access while preserving the scope of in-person lower-level instruction; projected departmental savings are approximately \$200,000 per academic year.
- Obtained institutional and state approval for the College of Science's first fully online master's degree. Average time to degree declined from approximately 3.0 to 1.7 years, and student debt declined by more than 50%.
- Coordinated course offerings and instructional staffing to eliminate waitlists, improve access to required courses, and reduce barriers to timely graduation.

Curriculum, Programs, and Workforce Alignment

- Chair the Biology Curriculum Committee and lead development, revision, approval, and assessment of undergraduate and graduate curriculum.
- Developed the approved Pre-Clinical B.S. Biology track and a three-course clinical simulation and skills microcredential aligned with preparation for health professions.
- Launched the Biology Scholars Program in 2025 to strengthen belonging, academic progress, and professional development.
- Supported development and launch of the Fermentation Sciences certificate with regional industry partners.
- Developed course-embedded certificates and capstone experiences, including BIOL 4101 Undergraduate Capstone and BIOL 5392 M.S. Non-Thesis Capstone.
- Developing a proposed M.S. in Industrial Biology, targeted for 2027, with hybrid coursework in biotechnology, biomanufacturing, food science, internships, and project management.

Assessment, Planning, and Facilities

- Chair department Unit Effectiveness processes and coordinate assessment and reporting for university, state, SACSCOC, and Texas Higher Education Coordinating Board requirements.
- Serve on the executive committee for an approximately \$100 million Life Sciences building renovation, advising on instructional laboratories, classrooms, and academic program needs.

ACADEMIC APPOINTMENTS

Professor of Instruction <i>University of Texas at Arlington, Department of Biology</i> Promoted early	2026–Present
Associate Professor of Instruction <i>University of Texas at Arlington, Department of Biology</i> Promoted early	2023–2026
Assistant Professor of Instruction <i>University of Texas at Arlington, Department of Biology</i>	2020–2023
Lecturer <i>University of Texas at Arlington, Department of Biology</i>	2013–2020
Visiting Assistant Professor <i>Quinnipiac University, Biological Sciences</i>	2010–2012
Visiting Assistant Professor of Science <i>Naugatuck Valley Community College</i>	2009–2010

TEACHING AND MENTORING

Courses taught include Cell and Molecular Biology, General Ecology, Toxicology, Biology for Nursing and Health Students, Nutrition, Biology for Non-Science Majors, undergraduate and graduate capstones, and First-Year Experience seminars. Instruction spans face-to-face, hybrid, fully online, accelerated, and large-enrollment formats.

- Designed applied curricula that connect scientific concepts to authentic problems through case studies, data analysis, service learning, risk assessment, regulation, and scientific communication.
- Led service-learning partnerships with U.S. EPA Region 6 supporting student research on cyanobacteria in Texas lakes and community-facing scientific communication.
- Mentor undergraduate and graduate students in academic planning, research, professional development, and transition to advanced study and careers.

EDUCATION

Ph.D., Quantitative Biology	2020
<i>University of Texas at Arlington</i>	
M.S., Marine Environmental Science	2002
<i>Stony Brook University</i>	
B.S., Marine Biology and Environmental Science	1997
<i>University of New England</i>	

HONORS, AWARDS, AND LEADERSHIP FELLOWSHIPS

- University of Texas System Regents' Outstanding Teaching Award, Nominee, 2022 and 2023
- UTA Provost Award for Excellence in Teaching, 2022
- Maverick Advantage Faculty Engagement Fellow, 2021–2022
- UTA Leadership Academy Fellow, 2021
- UTA College of Science Outstanding Teaching Award, 2021
- UTA Service-Learning Faculty Fellow, 2021
- UTA President's Award for Transformative Online Education, Nominee, 2021

SELECTED GRANTS, FUNDED INITIATIVES, AND PROPOSALS

- National Science Foundation S-STEM, Supporting a Pipeline to Ph.D. Excellence for Talented, Low-Income Quantitative Biology and Data Science Scholars. Co-PI; submitted March 2026; positively reviewed but not funded; proposal under revision for resubmission; \$2,000,000 requested.
- National Science Foundation REU Site, Animal Language Processing and Understanding. Senior Personnel, 2025–2027; \$483,804.
- UTA College of Science, Simulation-, AI-, and Case Study-Based Laboratory Course for Pre-Clinical Students. PI, 2025; \$12,000.
- UTA College of Science, Biology Course in Project Management with Embedded Industry Credential. PI, 2025; \$12,000.
- UT System Curricular Innovation Grant, Problem-Based Service-Learning Curriculum for Toxicology. PI, 2022; \$5,000.

SELECTED UNIVERSITY SERVICE

- Member, Vice Provost for Faculty Affairs Search Committee, 2026–Present
- Member, UTA Core Curriculum Working Group, 2025–Present
- Chair, UTA Program Review Committees for multiple academic programs, 2024–Present
- Chair, Biology Department Unit Effectiveness Process Committee, 2020–Present
- Member, UTA Enrollment Planning Working Group, 2023–2024
- Representative, UTA Undergraduate Assembly, 2023–2025
- Senator and Committee Chair, UTA Faculty Senate, 2019–2023

SELECTED INVITED PRESENTATIONS AND PROFESSIONAL ENGAGEMENT

- Invited presentation on improving outcomes in high-enrollment gateway biology, University of Texas System student-success convening.
- Student Experience Project Institute, University of Nevada, Las Vegas, 2024
- UT System Conference on the Future of Teaching in Texas, 2021
- UTA Women's Faculty and Staff Network, Women in Science Conference, 2019
- NSF Center for the Integration of Research, Teaching and Learning Forum, Texas A&M University, 2015

SELECTED PEER-REVIEWED PUBLICATIONS

Walsh, M.R., et al. (2016). Local adaptation in transgenerational responses to predators. *Proceedings of the Royal Society B*, 283(1823).

Walsh, M.R., Whittington, D., & Walsh, M.J. (2014). Predation intensity and reproductive senescence. *Journal of Animal Ecology*, 83(6), 1279–1288.

Vance, T.C., et al. (1998). Aquamarine waters recorded for first time in eastern Bering Sea. *Eos: Transactions of the American Geophysical Union*, 79(10), 121, 126.

SELECTED INSTRUCTIONAL MATERIALS

- Cell and Molecular Biology Laboratory Manual, multiple editions: custom, low-cost laboratory curriculum emphasizing inquiry-based and skills-focused instruction.
- General Ecology Laboratory Manual: data analysis, experimental design, and ecological applications.
- Ecology and Evolution Laboratory Manual: integrated core concepts with applied laboratory skills.

SELECTED MEDIA COVERAGE

Malesic, J. (2022, May 13). “My College Students Are Not OK.” *The New York Times*. Interviewed regarding post-pandemic student learning and engagement.

U.S. Environmental Protection Agency research communications. Student cyanobacteria research in Texas lakes conducted through the Toxicology service-learning partnership with EPA Region 6.

CERTIFICATIONS AND PROFESSIONAL DEVELOPMENT

- Certification in STEM Teaching, NSF Center for the Integration of Research, Teaching and Learning
- Instructional Design Bootcamp, UTA Center for Distance Education
- Human Subjects Research Certification

TECHNICAL AND ADMINISTRATIVE EXPERTISE

Student and academic systems: PeopleSoft, Slate, Canvas, and Blackboard. Data and analytics: R, MATLAB, and ArcGIS. Additional expertise includes curriculum mapping, assessment reporting, online program design, enrollment planning, instructional staffing, and document-management systems.