# Ph.D. in Biomedical Science Innovation and Technology
# CIP 26.0102
# Florida Atlantic University

## Board of Governors' Staff Analysis

November 2026

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## Program Description and Overview

Florida Atlantic University (FAU) proposes a Ph.D. in Biomedical Science Innovation and Technology to be housed within the Charles E. Schmidt College of Medicine. The proposed program builds upon FAU's existing master's program in biomedical science and graduate certificate in genomics and predictive health. It is a Program of Strategic Emphasis focused on advanced biomedical research and the use of emerging technologies, including artificial intelligence, to prevent, diagnose, and treat disease. The curriculum will integrate genetics, genomics, and precision medicine with training in biomedical and computational technologies.

Students will enter the program with a bachelor's or master's degree in biomedical science or a related field. Students must complete at least 72 credit hours beyond the bachelor's degree, including core courses, electives, and dissertation research. To advance to doctoral candidacy, students must prepare and successfully defend an original dissertation research proposal. All students must conduct original research and successfully defend their dissertation before a faculty committee.

Program graduates will have the knowledge and skills necessary for advanced roles in research and industry settings related to biomedical science and technology. Graduates will be prepared to work as medical scientists and to pursue postsecondary faculty positions in biological sciences or a related field.

Florida Atlantic University's Board of Trustees approved the proposed program on June 16, 2026. If approved by the Board of Governors, this will be the fifth Ph.D. program in the State University System in CIP 26.0102. Table 1 provides a summary overview of the proposed Ph.D. in Biomedical Science Innovation and Technology.

**Table 1: Proposed Program Summary**

| Ph.D. in Biomedical Science Innovation and Technology | |
|---|---|
| **Tuition per Credit Hour** | $371.82 Florida Resident<br>$1,125.06 Non-Resident |
| **Delivery Mode** | Traditional |
| **Location** | Main Campus |
| **Graduation Requirements** | 72 Graduate Credit Hours |
| **Effective Date** | Spring 2027 |

Source: Florida Atlantic University Ph.D. in Biomedical Science Innovation and Technology

## Need for Graduates in the Labor Market

The proposed program will prepare graduates with knowledge and skills in biomedical science and related disciplines, including genetics, genomics, precision medicine, and data analytics. Program courses will incorporate content on emerging biomedical technologies, artificial intelligence, and computational applications as they apply to disease prevention, diagnosis, and treatment.

### Doctoral Degrees Awarded in Similar Programs in the System

Florida Atlantic University's proposed program would be the fifth Ph.D. program under CIP 26.0102 in the System. Existing programs are offered at Florida International University, Florida State University, the University of Central Florida, and the University of Florida. Florida Atlantic University's proposed program will focus on the application of emerging biomedical technologies and data analytics, a focus that differs from existing programs.

As shown in Table 2, seven doctoral degrees were awarded in the 2025-26 Academic Year across the System. The University of Florida implemented its Ph.D. in Comparative Biomedical Sciences in fall 2025 and has not awarded degrees in this program.

**Table 2: Degrees Awarded, Ph.D. in Biomedical Sciences, CIP 26.0102**

| Institution | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 |
|---|---|---|---|---|---|
| **FIU** | 1 | 3 | 4 | 1 | 2 |
| **FSU** | 7 | 7 | 5 | 10 | 1 |
| **UCF** | 14 | 14 | 10 | 13 | 4 |
| **UF** | - | - | - | - | - |
| **Total** | **22** | **24** | **19** | **24** | **7** |

Source: Board Office of Data Analytics, Degrees Awarded by CIP, retrieved 10/5/2026.

**Workforce Demand**

The proposed Ph.D. program in Biomedical Science Innovation and Technology will prepare graduates for careers as medical scientists and in postsecondary teaching, where demand is projected to grow in Florida and nationally. Table 3 provides details on the workforce demand for these occupations.

**Table 3: Labor Market Demand, CIP Code 26.0102**

| Occupations | % Change in Job Openings | | Annual Average Job Openings | | Total # of New Jobs | | Education Level Needed for Entry |
|---|---|---|---|---|---|---|---|
| | FL 2026-34 | U.S. 2025-35 | FL 2026-34 | U.S. 2025-35 | FL 2026-34 | U.S. 2025-35 | |
| Medical Scientists 19-1042 | 15% | 12.6% | 357 | 10,500 | 769 | 22,700 | Doctoral or professional degree |
| Biological Science Faculty 25-1042 | 10.9% | 7.3% | 363 | 4,700 | 445 | 4,500 | Doctoral or professional degree |

Sources: U.S. Bureau of Labor Statistics and Florida Department of Commerce, retrieved: 10/5/2026.

In Florida, the demand for medical scientists is expected to grow by 15 percent through 2034, and nationally by almost 13 percent through 2035. The current median salary for medical scientists in Florida is $94,952, and the national median salary is $103,410.

The demand for postsecondary faculty in the biological sciences is expected to grow in Florida by almost 11 percent through 2034, and nationally by over seven percent through 2035. The current median salary in Florida for postsecondary biological science faculty is $57,144, and the national median salary is $84,620.

Graduates will be positioned for roles in research institutes, academic medical centers, hospitals, health systems, universities, and the life sciences industry that require advanced expertise. Graduates may be prepared for a variety of areas within these industries, such as translational research, bioinformatics, and the application of artificial intelligence to health data.

Board staff conducted an independent search of employers' career websites for job postings in Florida that either required or preferred a doctoral degree in biomedical science, bioinformatics, artificial intelligence and informatics, quantitative health sciences, neuroscience, and translational research. The search identified 11 job openings in Florida, 10 of which required a doctoral degree, including positions such as postdoctoral associate, research fellow, staff scientist, and medical science liaison. Employers include the Herbert Wertheim UF Scripps Institute for Biomedical Innovation

and Technology, Moffitt Cancer Center, Mayo Clinic Florida, AdventHealth Orlando, and IQVIA.

Graduates from similar Ph.D. programs in biomedical sciences in the System have pursued careers in the pharmaceutical and biotechnology industries, vaccine development, and healthcare communications. Alumni in these programs have secured roles including senior medical science liaison, executive director, vaccines program leader, director of stem cell and tissue engineering, and senior associate at a healthcare communications firm.

### Support from Industry Partners

The university plans to form the Biomedical Science Innovation Advisory Workgroup consisting of industry representatives and faculty during the program's first year. The workgroup will ensure that employer- and industry-driven competencies are taught at the state-of-the art level and are incorporated into the curriculum, research activities, and overall educational experience of students enrolled in the program. Industry partners include Sivotec, DNA Labs, BioFlorida, Boca Biolistics, Baptist Health South Florida, and Ruth and Norman Rales Jewish Family Services.

Florida Atlantic University provided letters of support for the proposed program, which highlight its role in addressing growing workforce needs in biomedical science and technology. Industry partners, including Baptist Health South Florida, BioFlorida, SIVOTEC, and Nikon Instruments, provided letters expressing support for the program. The letters emphasized the need for doctoral-level professionals who can advance biomedical research, develop emerging health technologies, and apply scientific discoveries to improve patient care.

## Student Demand and Projected Enrollment

Florida Atlantic University projects student interest in the proposed program based on two surveys conducted by the Office of Graduate Programs. The surveys of master's students, master's degree recipients, and doctoral students focused on their interest in pursuing a Ph.D. in Biomedical Science Innovation and Technology within the College of Medicine. Of the 19 students who completed the first survey, 22 percent indicated they would have considered applying to the program had it been available when they began graduate study. In the second survey, three of four current FAU master's students in biomedical science identified the proposed program as their preferred doctoral option.

The anticipated total student enrollment is 5 in Year 1 and 10 in Year 5, as shown in Table 4.

**Table 4: Projected Total Student Enrollment**

| Implementation Year | Proposed Student Headcount |
|---|---|
| **Year 1** | 5 |
| **Year 2** | 6 |
| **Year 3** | 8 |
| **Year 4** | 9 |
| **Year 5** | 10 |

Source: Florida Atlantic University Ph.D. in Biomedical Science Innovation and Technology

## Alignment Strategic Priorities

The proposed program aligns with FAU's mission to pursue excellence in research, scholarship, creative activity, teaching, and active engagement with its communities. The Charles E. Schmidt College of Medicine advances this mission through biomedical research and the education of scientists who can address Florida's healthcare needs. The proposed program will integrate biomedical science and emerging technologies to support scientific discovery and improvements in patient care.

As part of SUS 30, the proposed program supports the priorities of Innovative Research and Economic Development and World-Class Talent. Florida Atlantic University will build on its strengths in biomedical research to expand research activity and external funding opportunities. The proposed Ph.D. aims to attract highly qualified students and provide specialized training aligned with employer needs.

## Faculty

There are 28 full-time faculty members in the College of Medicine's Department of Biomedical Science who are currently available to participate in the proposed program. The proposal included specific evidence showing that the faculty have been productive in teaching, research, service, and securing external funding.

The Charles E. Schmidt College of Medicine at Florida Atlantic University has program faculty who conduct biomedical research supported by the National Institutes of Health and will provide input on the competencies required for program graduates.

## Resources

Florida Atlantic University reported having the resources to implement the proposed program, including research laboratories, advanced imaging equipment, and shared facilities that support student training in genetic research and biological data analysis. The university also documented that existing library and physical resources would be available to sustain the program through Year 5.

Florida Atlantic University plans to support doctoral students through internal College of Medicine funds and external research grants. Each student will receive tuition support and an annual stipend of $30,000. The university anticipates supporting five students in Year 1 and 10 students by Year 5. The university reported that opportunities for externally funded graduate assistantships are expected to expand as the program's research and interdisciplinary collaborations grow.

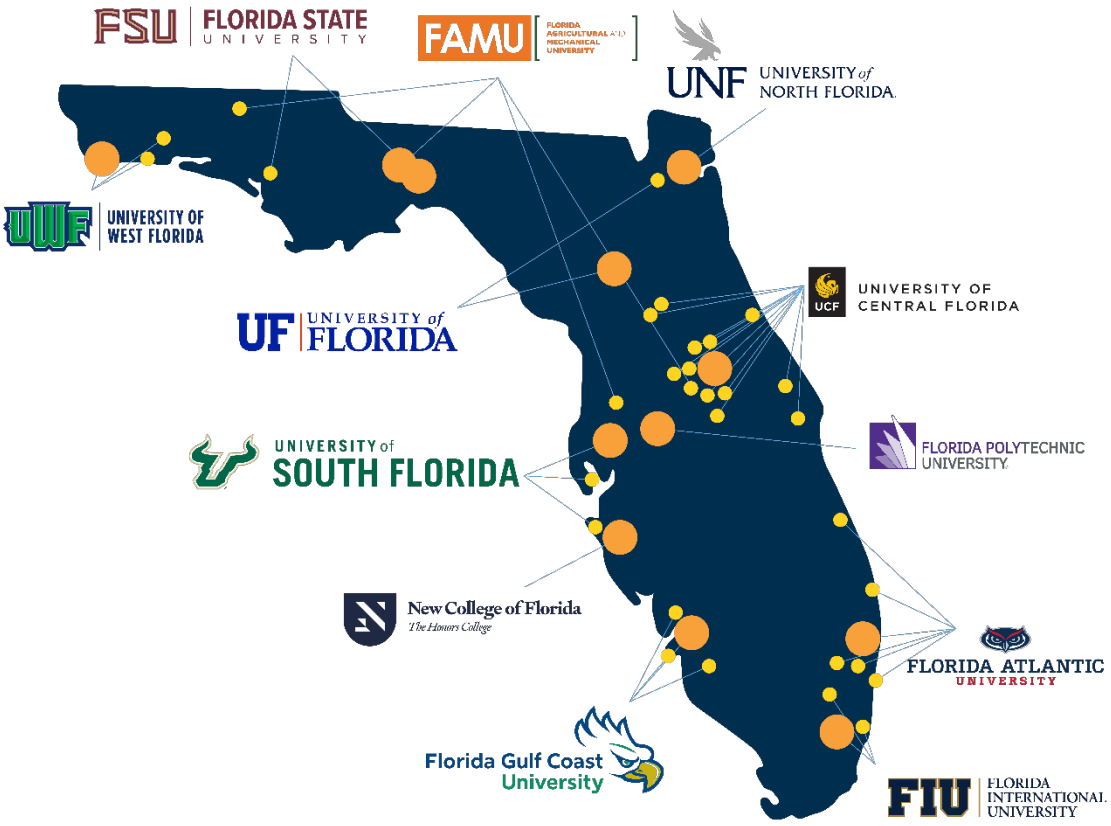
## Estimate of Investment

The proposed program will be funded through Education and General funds and contracts and grants. The institution intends to expend $582,350 in Year 1 and $855,843 in Year 5. The program will charge the currently approved graduate tuition rates of $371.82 per credit hour for resident students and $1,125.06 per credit hour for non-resident students.

## Conclusion and Board Staff Comments

If approved, the proposed Ph.D. in Biomedical Science Innovation and Technology will be the fifth program in the System offered in CIP 26.0102. There is sufficient evidence to demonstrate the workforce needs for graduates at the doctoral level. In addition, the university has faculty, physical resources, and funding to implement and sustain the program for five years. Board staff have no concerns regarding the proposed program.

# STATE UNIVERSITY SYSTEM OF FLORIDA






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