PROPOSAL FOR AN AREA OF EMPHASIS

Date: July 9, 2026

School/College: Franklin College of Life Sciences

Department/Division: Cellular Biology

Program (Major and Degree): CBIO Master Program

Area of Emphasis Title: Anatomy and Physiology

CIP:

Which campus(es) will offer this program? Athens

Proposed Effective Term: Fall 2027

Area of Emphasis Description: The Master's Program in Anatomy and Physiology, offered by the Department of Cellular Biology at the University of Georgia, provides advanced training in human anatomy and physiology together with preparation in effective teaching practices. The program integrates graduate coursework, laboratory experience, and teaching practicum to prepare students for medical or professional school, healthcare careers, and anatomy and physiology instruction.

A detailed program description is provided in the Proposal and Appendix.

Area of Emphasis Requirements: The area of emphasis requires ~30 credit hours, including core coursework in anatomy and physiology, a teaching practicum, and approved graduate electives. Students may also complete an optional capstone or research component. Detailed curriculum structure and course descriptions are provided in the Appendix.

Prerequisites: Anatomy & Physiology I and II**,** Biochemistry (BCMB 3100 or BCMB 4010)

Required Courses:
Advanced Anatomy (CBIO 7200) (new course)
Human Physiology (PMCY 4020-6020)
Advanced Physiology (new course)
Teaching Internship in Cellular Biology (CBIO 7360)
Graduate Electives (See full list in Appendix).

3. Approvals:

James D. Lauderdale

Department Head | Dean of School/College | Dean of Graduate School

Proposal to Add a New Area of Emphasis to the Cellular Biology Master Program in the Department of Cellular Biology

July 9, 2026

Submitted to:

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Basic Information

Proposed New Area of Emphasis: Master in Anatomy and Physiology

Start Date: Fall 2027

Program Description

The Master's Program in Anatomy and Physiology, offered by the Department of Cellular Biology at the University of Georgia, with the potential for future collaboration with the Medical School, will provide students with advanced, graduate-level training in human anatomy and physiology and preparation in evidence-based teaching.

This professionally oriented program is designed to prepare graduates for careers in medical education, healthcare, and allied health professions, as well as for further study in medical, dental, and other professional schools. Students will gain a deep understanding of human anatomy, structure, and function with a strong emphasis on evidence-based instructional methodologies and clinically relevant applications.

The program will serve three primary groups:

- **Double Dawgs students** seeking an accelerated pathway,
- **Cellular Biology graduates in a gap year** before applying to medical school, and
- **Advanced professionals** who wish to strengthen or refresh their foundational biomedical knowledge.

The curriculum emphasizes advanced understanding of human anatomy and physiology, as well as training in effective teaching of these subjects.

Training will combine online coursework, hands-on laboratory experience (anticipated during the second summer), teaching practicums, and applied research. Together, these components will equip graduates to contribute meaningfully to healthcare education and patient-centered fields.

We anticipate strong demand for this program, as there is a significant national need for qualified instructors in anatomy and physiology. Approximately 300 open faculty positions across the United States, as reflected in listings on the *Chronicle of Higher Education* job site, highlight the urgency and relevance of creating a robust pipeline of well-trained educators. Among the recent job postings we reviewed, most listed a master's degree as the minimum required qualification, demonstrating the strong demand for graduates with master's-level training in anatomy and physiology.

Students may also complete an optional capstone or research-based project, depending on their career goals and in consultation with the program advisor.

Program Requirements

The program requires ~30 credit hours (see Appendix for detailed curriculum structure).

Prerequisites for admission to the program:

- Anatomy & Physiology I or equivalent
- Anatomy & Physiology II or equivalent
- Biochemistry BCMB 3100 or advanced biochemistry BCMB 4010

Required graduate courses:

Required coursework includes Advanced Anatomy, Human Physiology, Advanced Physiology, a Teaching Internship, and approved graduate electives (see Appendix for course descriptions and full curriculum structure).

Program learning goals

Students completing the Master's Program in Anatomy & Physiology will:

- Demonstrate advanced knowledge of human anatomy and physiology beyond the undergraduate level
- Integrate structure and function across organ systems
- Apply evidence-based teaching methods to anatomy and physiology instruction
- Communicate scientific and anatomical concepts clearly and effectively
- Be well prepared for careers in teaching, healthcare, or further professional training

Resources Required

The successful implementation of the Master's Program in Anatomy & Physiology will require a combination of instructional, administrative, and facility resources. Some of these resources are currently available within the Department of Cellular Biology, while others will need to be developed to ensure long-term sustainability of the program.

A new Advanced Anatomy graduate course will be created as part of the curriculum. In the short term, this course could be offered by existing faculty members. However, to support a sustained and consistent program and to allow for future growth, the creation of this course highlights the need for a new faculty line, ideally filled by an individual with expertise in human physiology, preferably with medical training. This faculty member would play a central role in delivering the Advanced Anatomy course and would also contribute directly to teaching and mentoring students, strengthening the program.

Administrative support and classroom space can be provided using existing personnel and facilities within the Department of Cellular Biology. This will allow the program to launch without the need for additional administrative hires or new classroom construction.

The program will also require access to appropriate instructional laboratories and equipment, including anatomy laboratory infrastructure (such as cadavers and dissection tables), microscopes, teaching supplies, and physiology laboratory equipment.

Together, these resources will allow the program to deliver high-quality graduate-level training while making efficient use of existing departmental infrastructure and identifying targeted areas for future investment.

Admission Procedures for Applicants

Applications will be reviewed in the Spring of each year for admission in Fall of that year. The

deadline will be **March 1st** with rolling admissions. Successful applicants must have completed a bachelor's degree in biology, health sciences or related field with an overall GPA of 3.0 or higher and a minimum science GPA of 3.0. See Appendix for more details.

Financial aid and support

The CBIO Department will not offer guaranteed financial support for students enrolled in this Master's Program. However, students may apply for Research Assistant (RA) or Teaching Assistant (TA) positions within the Department of Cellular Biology or in other departments on campus. Consistent with Graduate School policy, students appointed to assistantships may work no more than 20 hours per week.

Appendix. Proposed Program Structure: Master of Science in Anatomy and Physiology

1. Program Overview

Degree: Master of Science in Anatomy and Physiology
Professionally oriented program integrating biomedical coursework, pedagogy, laboratory training, and applied research.

Home Unit: Department of Cellular Biology
Program Duration: 4 semesters (with extension possible if a thesis or research component is pursued)

Total Credit Hours: ~30. Of these, 12 credit hours will consist of graduate coursework only available to graduate students, at the 7000 level or higher (courses marked with an [*]). Of the remaining 18 credit hours, up to 12 may be in pedagogy training and 6-8 in electives (listed below)

Training will combine online coursework, hands-on laboratory experience (anticipated during the second summer), teaching practicums, and applied research. Together, these components will equip graduates to contribute meaningfully to healthcare education and patient-centered fields.

2. Target Students:

Target students include Double Dawgs students, recent graduates preparing for professional school, and professionals seeking advanced training.

3. Curriculum Structure

Core Requirements:

1. **Advanced Anatomy (CBIO 7200)***
   Graduate-level study of human anatomy with emphasis on structure-function relationships, clinical correlations, and integration across organ systems.
2. **Human Physiology (PMCY 4020-6020)**
   In-depth analysis of physiological mechanisms, regulation, and integration, with emphasis on human systems and pathophysiology.
3. **Advanced Physiology (New course)***
   This course will build on the required Human Physiology (PMCY 4020/6020) course and provide more advanced, integrative, systems-level, and clinically relevant coverage of physiological systems. This additional depth supports students preparing for teaching roles and for professional programs that require a stronger applied understanding of physiology.
4. **Teaching Practicum in Cellular Biology (CBIO 7360)***
   Training in teaching anatomy and physiology at the college level. Topics include course organization, student assessment, laboratory instruction, and classroom teaching methods. The course provides supervised opportunities for Cellular Biology graduate students to participate in curriculum development, prepare and deliver lectures, and lead classroom discussions.
5. **Graduate Electives**
   An approved graduate-level course or seminar relevant to anatomy, physiology,

biomedical sciences, or education, selected in consultation with the program advisor. See below list of electives.

ELECTIVES

Representative elective options include:

- Advanced Biochemistry (BCMB 6000)
- **Immunology (CBIO 6100)**
- **Endocrinology (CBIO 6730)**
- Human Genetics (GENE 6500)
- **Medical Parasitology (CBIO 6500)**
- Comparative Mammalian Physiology (VPHY 6090)
- Genetic Approaches to Developmental Neuroscience (GENE(CBIO) 4310/6310)
- **Neuroscience for the Health Professions (BMSC 6050E)**
- **Human Osteology (ANTH 4730L/6730L)**
- Principles of Toxicology (EHSC 7490)*
- Advanced Cell Biology (CBIO 8400)*
- Reproductive Physiology
- Cardiovascular and Respiratory Physiology (LAMS Online courses, like LAMS3000)
- **Advanced Immunology (CBIO 8100)***
- **Neuroanatomy for Behavioral Scientists (PSYC 8300)***
- **Biology of Parasitism (CBIO8500)***
- Developmental and Reproductive Toxicology (EHSC8550)*
- Advanced Developmental Biology (CBIO 8300)*
- Organ Systems (PRM 8940)*

4. Research and Experiential Training

- **Teaching Practicum:** Supervised teaching in undergraduate A&P (or related) courses
- **Laboratory Training:** Cadaver dissection, microscopy, histology, imaging
- **Capstone or Thesis Option:** Applied or research-based project with written report

5. Specialization Tracks (Optional)

Students may pursue one of the following focus areas:

- **Clinical Anatomy:** Cadaver-based dissection and clinical correlations
- **Neuroscience:** Neuroanatomy and neurophysiology
- **Exercise Physiology:** Applications in rehabilitation and sports science
- **Biomedical Research:** Experimental techniques and translational approaches

6. Career Preparation

- **Internships or Clinical Rotations:** In collaboration with medical school partners or research laboratories
- **Professional Development:** Grant writing, scientific communication, and career planning workshops

7. Enrollment and Admissions

- **Target enrollment:** ~15-20 students per cohort (subject to change)
- **Admissions cycle:** Annual, Summer/Fall entry
- **Application deadline:** January 15

Minimum requirements and application documents:

- Bachelor's degree in biology, health sciences, or related field
- Overall GPA ≥ 3.0; science GPA ≥ 3.0
- Statement of purpose
- Curriculum vitae
- Three letters of recommendation

GRE, MCAT, or DAT scores are recommended but not required. English proficiency requirements follow Graduate School policy for international applicants.

8. Resources Required

- Administrative support
- Classroom space
- Anatomy laboratory infrastructure (cadavers, dissection tables)
- Microscopes and histology supplies
- Physiology laboratory equipment
- Access to imaging facilities

9. Financial Support

The program will not provide guaranteed financial support. Students may apply competitively for RA or TA appointments within CBIO or other departments, consistent with Graduate School policies (≤20 hours/week).