



received
1/9/19

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**Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program**

Institution Submitting Proposal	Johns Hopkins University
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Each action below requires a separate proposal and cover sheet.

- | | |
|---|---|
| <input checked="" type="radio"/> New Academic Program | <input type="radio"/> Substantial Change to a Degree Program |
| <input type="radio"/> New Area of Concentration | <input type="radio"/> Substantial Change to an Area of Concentration |
| <input type="radio"/> New Degree Level Approval | <input type="radio"/> Substantial Change to a Certificate Program |
| <input type="radio"/> New Stand-Alone Certificate | <input type="radio"/> Cooperative Degree Program |
| <input type="radio"/> Off Campus Program | <input type="radio"/> Offer Program at Regional Higher Education Center |

Payment <input checked="" type="radio"/> Yes	Payment <input type="radio"/> R*STARS	Payment	Date
Submitted: <input type="radio"/> No	Type: <input checked="" type="radio"/> Check	Amount: \$850	Submitted: 1.8.19

Department Proposing Program	JHU School of Medicine		
Degree Level and Degree Type	Master's (Level) Master of Science (Type)		
Title of Proposed Program	Anatomy Education		
Total Number of Credits	30		
Suggested Codes	HEGIS:	CIP: 26.0403	
Program Modality	<input checked="" type="radio"/> On-campus	<input type="radio"/> Distance Education (fully online)	<input type="radio"/> Both
Program Resources	<input type="radio"/> Using Existing Resources	<input checked="" type="radio"/> Requiring New Resources	
Projected Implementation Date	<input checked="" type="radio"/> Fall	<input type="radio"/> Spring	<input type="radio"/> Summer Year: 2019
Provide Link to Most Recent Academic Catalog	URL: https://www.hopkinsmedicine.org/som/students/academics/catalog/index.html		

Preferred Contact for this Proposal	Name:	Natalie Lopez
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President/Chief Executive	Type Name:	Sunil Kumar
	Signature:	SK Date: 1.8.19
Date of Approval/Endorsement by Governing Board:		

Revised 12/2018

**The Johns Hopkins University
School of Medicine
Proposal for a New Academic Program**

Master of Science in Anatomy Education

A. Centrality to Institutional Mission and Planning Priorities

1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.

The Johns Hopkins University School of Medicine is pleased to submit a proposal to create a new Master of Science in Anatomy Education. The Master of Science in Anatomy Education will prepare graduates of the program to teach human anatomy and related disciplines (including physiology and histology) at the community college level. This one-year program provides in-depth training in human anatomy through lectures, small group exercises, and dissection laboratories. In-class and online training in human physiology and histology, as well as pedagogical techniques, is also included in the program. In addition to preparing for careers in education, the program is also appropriate for students who wish to go on to research or education support positions in anatomy, such as anatomy lab manager or surgical research coordinator.

The mission of the Johns Hopkins University is "to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world" (<https://www.jhu.edu/about/history/>). Anatomy is a core discipline taught within many undergraduate curricula, for example, in the allied health professions, pre-medical programs, and general biology. At this educational level it is often combined with physiology and/or histology. Excellent training in these fields will enhance the next generation of health and biomedical professionals.

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

One of the priorities of the Johns Hopkins Medicine Strategic Plan is to "Lead the world in the education and training of physicians and biomedical scientists," with the first goal within this priority to "Build an effective culture for learning and education across all JHM member organizations, leverage the University's infrastructure, and facilitate interprofessional educational programs" (https://www.hopkinsmedicine.org/strategic_plan/education.html). The proposed new Master's program directly addresses these priorities and goals, by providing excellent education and training in the anatomical sciences and related disciplines, making use of existing university infrastructure (e.g., anatomy labs), and taking advantage of existing interdisciplinary opportunities through the School of Public Health (physiology) and Master of Education in the Health Professions program (pedagogical techniques).

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation. (Additional related information is required in section L.)

Support for the program will be provided from the Johns Hopkins University School of Medicine (SOM) through salary support for administrators and faculty who teach in the program, who are mainly drawn from the Center for Functional Anatomy and Evolution in the SOM (see Section I below). In addition, the SOM has committed to providing guaranteed scholarships to reduce tuition from the graduate student rate of \$53,400 to \$38,000 (see Section L below). Other expenses associated with the program (e.g., cadavers for dissection) will be covered through tuition revenue from the program.

4. Provide a description of the institution's commitment to:

a) Ongoing administrative, financial, and technical support of the proposed program

The Johns Hopkins School of Medicine has committed resources for administrative and financial management for this graduate program. Salary support is provided for administrative staff and faculty within the Center for Functional Anatomy, as well as the Registrar's Office and other offices associated with graduate education in the SOM. Technical support is provided through existing graduate school resources.

b) Continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

This is a one-year Master's program. Support from the School of Medicine is provided to each student entering the program (see Sections A3 and L).

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:

a) The need for the advancement and evolution of knowledge

Anatomy forms part of the key foundation for many biomedical sciences, including medicine, allied health professions, and organismic biology. Training in anatomy is thus commonly included in preprofessional programs offered at the undergraduate level. Community colleges, in particular, often prepare students for careers in allied health professions and include anatomy (often combined with physiology) as part of those programs. Such colleges usually require a Master's degree for instructors. Examples of recent employment opportunities in the State of Maryland for instructors of anatomy requiring a Masters level degree include:

Anne Arundel Community College, Cecil College, Community College of Baltimore County, Howard Community College, and Montgomery College. Research support staff positions within medical schools also frequently require a Master's degree; recent examples in the general region include Anatomy Lab Manager (George Washington University), Surgery Research Coordinator (Uniformed Services University of the Health Sciences). Despite this demonstrated need, there are currently no Masters level programs in anatomy within the State of Maryland.

b) Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education

Johns Hopkins University is committed to sharing values of diversity and inclusion in order to achieve and sustain excellence. The promotion of excellence is best achieved by recruiting and retaining a diverse group of students, faculty, and staff and by creating a climate of respect that is supportive of their success. This climate for diversity, inclusion and excellence is critical to attaining the best research, scholarship, teaching and other strategic goals of the University. Taken together these values are recognized and supported fully by the Johns Hopkins Institutions leadership at all levels. The Johns Hopkins School of Medicine actively recruits and admits students from underrepresented minorities into all graduate programs, including the proposed new Master's program.

c) The need to strengthen and expand the capacity of historically black institutions to provide high quality and unique educational programs.

The proposed program does not directly address this issue. However, we anticipate that the program will attract applications from graduates of HBI's. Some instructor level positions in these institutions may also require a Master's degree.

2. Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education.

Our new Master's program addresses the goals articulated in the Maryland State Plan for Postsecondary Education, particularly in the following areas:

Promote and implement practices and policies that will ensure student success.

- **Strategy 4.** Continue to ensure equal educational opportunities for all Marylanders by supporting all postsecondary institutions.
- **Strategy 5.** Ensure that statutes, policies, and practices that support students and encourage their success are designed to serve the respective needs of both traditional and non-traditional students.
- **Strategy 6.** Improve the student experience by providing better options and services that are designed to facilitate prompt completion of degree requirements.

- **Strategy 7.** Enhance career advising and planning services and integrate them explicitly into academic advising and planning.

The proposed program will be supported in part by guaranteed scholarships to all students from the Johns Hopkins University School of Medicine that will reduce the usual graduate student tuition rate from \$53,400 to \$38,000, making this program more accessible to non-traditional students. The program is designed to be completed in one year, which will also assist students financially and logistically. Close faculty-student mentorship throughout the program will be provided, enhancing the educational experience and ensuring support throughout. Aid in employment placement following the program will also be provided.

Foster innovation in all aspects of Maryland higher education to improve access and student success.

- **Strategy 9.** Strengthen and sustain development and collaboration in addressing teaching and learning challenges.

The new Master's degree is an innovative cross-disciplinary program that combines existing resources at the Johns Hopkins School of Medicine to provide education and training specifically focused on preparing instructors of anatomy.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State:

1. Describe potential industry or industries, employment opportunities, and expected level of entry (ex: *mid-level management*) for graduates of the proposed program.

The primary employment targets for graduates of this program are teaching positions in community colleges. Instructorships of anatomy, sometimes combined with physiology and/or histology, commonly require a Master's degree. In addition, the degree would be suitable for research or academic support positions, such as anatomy lab manager or surgical research coordinator.

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

Anatomy forms part of the key foundation for many biomedical sciences, including medicine, allied health professions, and organismic biology. Training in anatomy is thus commonly included in preprofessional programs offered at the undergraduate level. Community colleges, in particular, often prepare students for careers in allied health professions and include anatomy (often combined with physiology) as part of those programs. Five recent (as of 9/1/18) examples of such employment opportunities were available in the State of Maryland, while a dozen additional opportunities were available in nearby states (see table below; data obtained from an internet search under "Anatomy Jobs").

Faculty Positions in Anatomy or Anatomy/Physiology Requiring Master's Degree, 2018

Within Maryland	Outside of Maryland
Anne Arundel Community College	Chamberlain College of Nursing (VA)
Cecil College	ECPI University (VA)
Community College of Baltimore County	James Madison University (VA)
Howard Community College	Lord Fairfax Community College (VA)
Montgomery College	Medical Careers Institute (VA)
	Norfolk State (VA)
	Delaware Tech (DE)
	Montgomery County College (PA)
	Cumberland County College (NJ)
	Monmouth University (NJ)
	Blue River Comm. and Tech. College (WV)
	Green River College (NY)

3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

No data specifically tracking employment trends in anatomy instruction are available, but the general job outlook for postsecondary teachers in the biological sciences is very good, with a projected increase of 16% between 2014 and 2024, according to data available online (study.com, learn.org), based on US Bureau of Labor statistics. Thus, market demand for this degree should continue to be strong for the foreseeable future.

4. Provide data showing the current and projected supply of prospective graduates.

The graduate program described here will recruit between 2 and 4 students per year. Qualifications for admission include a bachelor's degree in an appropriate field (e.g., biological sciences). Given the strong demand for anatomy educators (see above), the supply of potential students is and should continue to be large.

D. Reasonableness of Program Duplication

1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.

No similar Masters level program exists in the State of Maryland, as supported by searches in the MEHC and American Association of Anatomists lists of graduate programs.

2. Provide justification for the proposed program.

The program provides a unique opportunity for training instructors in anatomy at the Masters level, appropriate for teaching at the Community College level.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBI's.

The program has no direct impact on the implementation or maintenance of high-demand programs at HBI's, although the program may be attractive to graduates of such programs.

F. Relevance to the identity of Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.

The program will have no direct impact on the uniqueness and institutional identities and missions of HBIs, as the program is unique to Johns Hopkins University.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

The proposed program is an outgrowth of our established Johns Hopkins University School of Medicine Ph.D. graduate program in Functional Anatomy and Evolution (FAE) (<https://www.hopkinsmedicine.org/fae/Program.html>). The new Master's program will be administered and largely taught by the same faculty within the Center for Functional Anatomy and Evolution. The co-directors of the Master's program will be Dr. C.B. Ruff and Dr. E.M. Sinclair (see Section I.1 for details on FAE faculty).

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

The educational objectives of the program are to prepare graduates for teaching anatomy, combined with physiology and histology, at the community college level. As part of their education, students will also receive training in pedagogical methods, through courses taught by both FAE faculty as well as through the Master of Education in the Health Professions program at Johns Hopkins. Learning modalities employed in the program are a hybrid of face-to-face and on-line courses, but with a preponderance of face-to-face courses. Upon graduation, students will have the knowledge and experience necessary to effectively teach and administer courses in these academic disciplines. They will also have training

appropriate for assuming research support positions in these fields, in academic and potentially non-academic environments.

3. Explain how the institution will

a) Provide for assessment of student achievement of learning outcomes in the program

Student achievement will be assessed through course examinations and performance in small group exercises (laboratory activities, teaching practicums).

b) Document student achievement of learning outcomes in the program

Student achievement will be documented via the same mechanisms as above.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements

SOM ME 130.600 Foundations of Human Anatomy (7 credits)

Intensive course also taught to entering medical students and Ph.D. graduate students; includes lectures, small group activities (imaging, team-based learning, other), and full-body dissection. Provides in-depth introduction to human anatomy.

SOM ME xxx.xxx (new course). Advanced Anatomical Dissection and Research (5 credits)

Supervised small group cadaveric dissection focusing on more detailed understanding of specific systems and regional anatomy, anatomical variation, clinical correlations, and comparative anatomy. Includes a research project and paper.

SOM ME xxx.xxx (new course). Teaching Practicum in Anatomy (3 credits)

Provides training in lecturing, small group leadership for presentation of anatomy. Includes giving one lecture and assisting in labs in undergraduate Summer Institute in Anatomy.

SOM ME xxx.xxx (new course). Introduction to Histology (2 credits)

Introduction to basics of histology; on-line, using materials developed for medical school course in histology.

SPH 183.631.01 Fundamentals of Human Physiology (4 credits)

Introduction to organ level human physiology, taught through the Johns Hopkins Bloomberg School of Public Health (SPH).

The following pedagogical courses are on-line and taught through the interdisciplinary Johns Hopkins Master of Education in the Health Professions (MEHP) program:

MEHP ED 880:635, 637 Instructional Strategies I and II (3 credits)

Instructional methods in small and large group teaching - team-based, interactive, and case-based; strategies to enhance critical thinking, creativity, and cooperative learning.

MEHP ED 880:631.95 Ensuring Learning through Assessment and Feedback (3 credits)

Design of effective assessment tools; aligning assessments with learning goals and objectives; use of feedback to monitor and evaluate learning.

MEHP ED 880:629.95 Evidence-Based Teaching (3 credits)

Apply evidence-based strategies and methodologies to teach in a variety of settings; assess learner needs to guide instruction; effectively integrate technology into instruction.

5. Discuss how general education requirements will be met, if applicable.

Not applicable.

6. Identify any specialized accreditation or graduate certification requirements for this program and its students.

Not applicable.

7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

Not applicable.

8. Provide assurance and any appropriate evidence that the proposed program will provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirement, learning management system, availability of academic support services and financial aid resource, and costs and payment policies.

A full description of the program, including its purpose and expected outcomes, admission requirements, course and degree requirements, tuition and fees, with links to general medical school and university websites with more information on academic support and financial aid support services, is given on our website.

Johns Hopkins SOM Web links for graduate programs:

All of the graduate programs fall under the Vice Dean of Education in the School of Medicine. The Office oversees all of the educational programs including the medical

students, residents & clinical fellows, graduate students, postdoctoral research fellows, plus other learners in the School of Medicine. Offices supporting graduate education in the School of Medicine include the following:

- Office of Graduate Student Affairs
- Office of Academic Computing
- Office of Assessment and Evaluation
- Office of Financial Affairs (Business Office)
- Office of Financial Aid
- Office of Graduate Student Affairs
- Office of Information Technology
- Office of the Registrar
- Professional Development and Career Office.

Johns Hopkins School of Medicine is committed to investing in graduate education. Academic support websites include:

- Course catalog & course registration
- New Innovations
- Blackboard
- Student Information System (SIS)
- SIS Course search
- MyLearning
- Support: Office of Academic Computing
- Technology support
- Library & Informationists
- Welch library access
- Welch Informationists

9. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

The description of the program on our website (once endorsement is received) will be listed as follows:

Master of Science in Anatomy Education

Purpose

The Johns Hopkins University School of Medicine Master of Science in Anatomy Education program is designed to give students the training they need in order to successfully compete for teaching positions in anatomy at the community college level. Because such positions often also require some instruction in physiology and/or histology, introductory courses in these disciplines are also included in the program,

along with training in pedagogical techniques. The program is also appropriate for students who wish to go on to research or educational support positions in anatomy, such as anatomy lab manager or surgical research coordinator.

Program

The core of this one-year full-time program is a series of courses providing intensive immersion in human anatomy through both classroom instruction and dissection laboratories, including small group interactions with our faculty. A teaching practicum providing training and experience in instructional delivery of anatomical knowledge in lecture and laboratory settings is also included at the end of the program. Some exposure to nonhuman comparative anatomy is incorporated to provide training in the use of model organisms for instructional programs that use these models. All anatomy courses are taught by the experienced faculty of the Center for Functional Anatomy and Evolution (FAE) (<https://www.hopkinsmedicine.org/fae/>).

The main program runs between mid-August and the end of June, and includes nine courses, described in detail below. We strongly recommend that entering students also take our Summer Institute in Anatomy (<https://www.hopkinsmedicine.org/fae/anatomyinstitute/>) during the June preceding their entry into the Master's program, which provides an introduction to anatomy and preparation for the rigorous medical school anatomy course that they will take beginning in August. A discounted tuition rate (50%) for the Summer Institute will be offered to all students admitted to the Master's program.

All courses (except on-line courses) are held on the campus of the Johns Hopkins University School of Medicine in Baltimore.

[List of courses - see Section G.4 above]

Admission requirements

- Bachelor's degree from an accredited college or university
- Grade transcripts, personal statement, and two letters of recommendation
- Demonstrated proficiency in written and spoken English, for non-native speakers
- Interview with faculty (via Skype)

This program may also be appropriate for professionals in other disciplines who wish to return for specific training in anatomical education.

Tuition and fees

Tuition at the Johns Hopkins Medical School for full-time graduate students is \$53,400. However, each student admitted to this program will receive a guaranteed scholarship from the medical school, reducing tuition to \$38,000. There is also a one-time matriculation fee of \$740.

Contact information

Ms. Arlene Daniel (adaniel@jhmi.edu), program coordinator
 Dr. Christopher Ruff (cbruff@jhmi.edu), program director
 Dr. Elizabeth St Clair (Elizabeth.StClair@jhmi.edu), program co-director

H. Adequacy of Articulation

1. If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements.

Not applicable.

I. Adequacy of Faculty Resources

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach (in this program).

The core courses in anatomy in this program, as well as the histology course, will be taught by faculty in the Center for Functional Anatomy and Evolution, Johns Hopkins SOM. All are full-time.

Name	Degree	Rank	Courses taught
Ruff, Christopher	Ph.D.	Professor	SOM ME 130.600 (Found. Human Anatomy) SOM ME xxx.xxx (Adv. Anat. Diss. & Res.)
St Clair, Elizabeth	Ph.D.	Instructor	SOM ME 130.600 (Found. Human Anatomy) SOM ME xxx.xxx (Adv. Anat. Diss. & Res.) SOM ME xxx.xxx (Anat. Teaching Practicum)
Sylvester, Adam	Ph.D.	Assist. Prof.	SOM ME 130.600 (Found. Human Anatomy) SOM ME xxx.xxx (Histology)
Bever, Gabriel	Ph.D.	Assist. Prof.	SOM ME 130.600 (Found. Human Anatomy) SOM ME xxx.xxx (Histology)
Perry, Jonathan	Ph.D.	Assist. Prof.	SOM ME 130.600 (Found. Human Anatomy)
Cooke, Siobhan	Ph.D.	Assist. Prof.	SOM ME 130.600 (Found. Human Anatomy)

Other courses will be taught through the Johns Hopkins School of Public Health (SPH) or interdisciplinary Master of Education in the Health Professions (MEHP) program. All faculty have appointments in the SPH, SOM, or School of Education.

Name	Degree	Rank	Courses taught
Mitzner, Wayne	Ph.D.	Professor	SPH 183.631.01 (Fund. Human Physiology)
Tillberg-Webb, Heather	Ph.D.	Instructor	MEHP ED 880:635, 637 (Instructional Strategies I and II)
Shatzer, John	Ph.D.	Assist. Prof.	MEHP ED 880.631.95 (Ensuring Learning through Assessment and Feedback)
Colbert-Getz, Jorie	Ph.D.	Assist. Prof.	MEHP ED 880.631.95 (Ensuring Learning through Assessment and Feedback)
Belcher, Anne	Ph.D.	Assoc. Prof.	MEHP ED 880.629.95 (Evidence-Based Teaching)

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

a) Pedagogy that meets the needs of the students

Pedagogical performance of all faculty engaged in educational activities within the Johns Hopkins School of Medicine is regularly assessed through student evaluations and faculty mentoring by department directors and education deans. All faculty participating in this new program are experienced instructors at the graduate level.

b) The learning management system

Blackboard is a university-wide learning management system designed to deliver fully online courses, as well as supplement courses taught in the face-to-face environment. Through the effective use of tools such as announcements, discussions, assignments, tests and quizzes, journals, and wikis, instructors can create innovative and interactive learning environments for their students. All faculty are experienced using this system. In addition, the MEHP online courses utilize ZOOM video conferencing services to enhance student-student and student-faculty interactions.

c) Evidenced-based best practices for distance education, if distance education is offered.

The majority of program credits are earned in face-to-face courses, so this is not applicable.

J. Adequacy of Library Resources

1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for library resources to meet the program's needs.

The Welch Medical Library serves the informational needs of the faculty, staff, and students of Johns Hopkins Medicine, Nursing and Public Health. The Welch Service Center provides in-person circulation and document retrieval, reference and searching assistance, and reserves services. Informationists offer a variety of professional tailored services, including individual and group consultations, searching-from general reference and evidence-based precision, to full-scale systematic review participation; citation management; curriculum, classroom and online instruction; and collaborations on grants and research projects from beginning to end, as they evolve. Informationists are experts at navigating the publishing landscape to respond to complex requests related to research impact, scholarly output and dissemination.

The library collects current scholarly information that supports the research, clinical, administrative, and educational needs of the Johns Hopkins School of Medicine, School of Nursing, School of Public Health, and Health System. Because the library's emphasis is on providing materials at point of need, the collection is primarily in electronic format. It covers health, the practice of medicine and related biomedical and allied health care disciplines, public health and related disciplines, nursing, research literature, methodological literature, reviews or state-of-the-art reports, and in-depth, authoritative analyses of areas influencing biomedicine and health care. The Welch online collection includes more than 7,200 electronic journals, over 400 databases, more than 13,000 e-books and more than 2,500 videos.

Johns Hopkins Medicine, Nursing, and Public Health users have access to both the print and online collections of the other Johns Hopkins libraries including over 150,000 journals and just under a million e-books. The William H. Welch Medical Library, located at 1900 East Monument Street, was founded in 1929 with the merger of three libraries: the School of Medicine, the School of Hygiene and Public Health, and Johns Hopkins Hospital. From its inception, the Library has been used by the faculty, students, and staff of the Schools of Medicine, Public Health, and Nursing as well as by the staff and attending physicians of the Johns Hopkins Hospital. In 2012, Library staff relocated to offices in the 2024 building and in the Mt. Washington campus. Today, the building houses the print collection of the Welch Medical Library, the offices, and collections of the Institute of the History of Medicine, as well as the Center for Computational Biology. Study space is available on the second floor of the library in the East and West Reading rooms as well as the central lobby.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment

1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for adequate equipment and facilities to meet the program's needs.

Classroom space and technology infrastructure for existing and proposed new courses, including for lectures, small group activities, and anatomy laboratories, are already available through facilities at the Johns Hopkins School of Medicine and School of Public Health campuses.

2. Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:

- a) **An institutional electronic mailing system, and**
- b) **A learning management system that provides the necessary technological support for distance education**

All students have email addresses assigned upon matriculation, and are provided access through Blackboard to all course materials as well as medical school as well university-wide resources (e.g., library services). The SOM has extensive IT support.

L. Adequacy of Financial Resources with Documentation

TABLE 1: PROGRAM RESOURCES

Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	0.00	0.00	0.00	0.00	0.00
2. Tuition/Fee Revenue (c + g)	162,420.00	162,420.00	162,420.00	162,420.00	162,420.00
a. Number of F/T Students	3.00	3.00	3.00	3.00	3.00
b. Annual Tuition/Fee Rate	54,140.00	54,140.00	54,140.00	54,140.00	54,140.00
c. Total F/T Revenue (a x b)	162,420.00	162,420.00	162,420.00	162,420.00	162,420.00
d. Number of P/T Students	0.00	0.00	0.00	0.00	0.00
e. Credit Hour Rate	0.00	0.00	0.00	0.00	0.00
f. Annual Credit Hour Rate	0.00	0.00	0.00	0.00	0.00
g. Total P/T Revenue (d x e x f)	0.00	0.00	0.00	0.00	0.00
3. Grants, Contracts & Other External Sources	0.00	0.00	0.00	0.00	0.00
4. Other Sources - Strategic Plan Funding	0.00	0.00	0.00	0.00	0.00
TOTAL (Add 1 – 4)	162,420.00	162,420.00	162,420.00	162,420.00	162,420.00

TABLE 2: PROGRAM EXPENDITURES

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c)	64,952.00	64,952.00	64,952.00	64,952.00	64,952.00
a. Number of FTE	0.50	0.50	0.50	0.50	0.50
b. Total Salary	48,472.00	48,472.00	48,472.00	48,472.00	48,472.00
c. Total Benefits	16,480.00	16,480.00	16,480.00	16,480.00	16,480.00
2. Admin Staff (b + c)	24,168.00	24,168.00	24,168.00	24,168.00	24,168.00
a. Number of FTE	0.25	0.25	0.25	0.25	0.25
b. Total Salary	18,036.00	18,036.00	18,036.00	18,036.00	18,036.00
c. Total Benefits	6,132.00	6,132.00	6,132.00	6,132.00	6,132.00
3. Support Staff	0.00	0.00	0.00	0.00	0.00
a. Number of FTE	0.00	0.00	0.00	0.00	0.00
b. Total Salary	0.00	0.00	0.00	0.00	0.00
c. Total Benefits	0.00	0.00	0.00	0.00	0.00
4. Technical Support	0.00	0.00	0.00	0.00	0.00
5. Library	0.00	0.00	0.00	0.00	0.00
6. New or Renovated Space	0.00	0.00	0.00	0.00	0.00
7. Other Expenses	73,300.00	73,300.00	73,300.00	73,300.00	73,300.00
TOTAL (Add 1 – 7)	162,420.00	162,420.00	162,420.00	162,420.00	162,420.00

Table L.1 Program Resources

Line 2 reflects the Tuition costs for the program (\$53,400) plus a one-time matriculation fee (\$740). The actual tuition paid by students will be \$38,000 because of the guaranteed scholarship from the SOM, included in Expenses (Table 2, line 7). Any change in tuition costs will be offset by an equivalent percentage increase in the SOM guaranteed scholarship.

Line 2a: The target initial enrollment for this program is 3 students per year. Depending upon interest, this may be increased in subsequent years to up to 6 students per year.

Table L.2 Program Expenditures

Line 1: 0.50 FTE faculty position, split between the participating faculty of the Center for Functional Anatomy, is included here.

Line 2: 0.25 FTE administrative staff position will be supported.

Line 7: Other expenses include a) funds to partially offset the cost of tuition (\$15,400 per student, per year), b) revenue sharing with the Masters of Education in the Health Professions program (\$8700 per student, per year), and c) supplies (\$1000 per year), including the costs for two cadaveric specimens and other supplies.

M. Adequacy of Provisions for Evaluation of Program

1. Discuss procedures for evaluating courses, faculty and student learning outcomes.

Course evaluations accompany each course in the form of surveys given to students at the end of the course. These evaluations are designed and analyzed by the Office of Assessment and Evaluation in the School of Medicine. Faculty evaluation surveys are also completed by students and analyzed by the Office of Assessment and Evaluation in the School of Medicine.

2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

F AE faculty will review the admissions process and elements considered during this process annually to determine the efficacy of this process at identifying, recruiting, and selecting well-matched students for the program. The Director or co-Director of the program will have regular (quarterly) meetings with students to discuss progress through the program and any concerns regarding the curriculum. Student perspectives on the curriculum will also be obtained through formal evaluations of each course. The FAE faculty will perform annual reviews of the entire program to evaluate whether the curriculum is meeting program objectives, and to consider possible modifications in light of course reviews and other student feedback.

N. Consistency with the State's Minority Student Achievement Goals

1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.

Johns Hopkins is a community committed to sharing values of diversity and inclusion in order to achieve and sustain excellence. We firmly believe that we can best promote excellence by recruiting and retaining a diverse group of students, faculty and staff and by creating a climate of respect that is supportive of their success. This climate for diversity, inclusion and excellence is critical to attaining the best research, scholarship, teaching, health care and other strategic goals of the Health System and the University. Taken together these values are recognized and supported fully by the Johns Hopkins Institutions leadership at all levels. Further, we recognize that the responsibility for excellence, diversity and inclusion lies with all of us at the Institutions: leadership, administration, faculty, staff and students. The Johns Hopkins Medical School's commitment to these principles in the education of our students is embodied in the Office of Medical Student Diversity and Assistant Dean for Graduate Student Diversity and Graduate Biomedical Education. The new Master's degree program will make active efforts to attract and retain qualified minority applicants.

O. Relationship to Low Productivity Programs Identified by the Commission:

- 1. If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.**

Not applicable.

P. Adequacy of Distance Education Programs

- 1. Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.**

Not applicable as this program will be taught in the traditional classroom modality.

- 2. Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.**

Not applicable as this program will be taught in the traditional classroom modality.