Graduate Program Handbook

Division of Anatomy

THE OHIO STATE UNIVERSITY

COLLEGE OF MEDICINE

Amended: May 2024

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I. INTRODUCTION

The Graduate Program in Anatomy at The Ohio State University offers graduate studies in the anatomical sciences. The Anatomy Graduate Program operates under the rules of the Graduate School as published in the Graduate School Handbook (http://www.gradsch.ohio-state.edu/graduate-school-handbook1.html) the Graduate School Newsletter, and other Graduate School notices or instructions. The policies and rules in this handbook govern specific aspects of the Anatomy Graduate Program. Graduate students are responsible for compliance with the rules and policies of both the Graduate School and the Division of Anatomy. Degrees offered include Master of Science (MS) and Doctor of Philosophy (PhD). Each student is responsible for keeping and referencing the version of this handbook in effect at the time of their entry into the program. It is this version of the handbook that should be consulted for information regarding degree requirements and examination procedures.

II. ADMINISTRATION

a. Graduate Studies Committee (GSC)

i. Membership: The GSC in the Division of Anatomy includes a minimum of three (3) Anatomy Graduate faculty and one full-time graduate student. Faculty members are appointed by the Director of the Division of Anatomy. The student member will be elected annually by anatomy resident graduate students, as outlined in the Fellowship of Student Anatomists (FOSA) By-laws, and will attend Division faculty meetings that concern policies and procedures of the graduate program. The student member is a non-voting member of the GSC.

ii. Responsibilities: The GSC is responsible for administering the Anatomy Graduate program in accordance with policies established by the Graduate School at The Ohio State University and the faculty of the Division of Anatomy. The following duties are delegated to the GSC:

1. To act on applications for admission to the Anatomy Graduate Programs at the Master's and the Ph.D. levels and to recommend students for university fellowships.

2. To recommend students for Graduate Teaching Associate (GTA) positions. Positions are appointed by the Director of the Division of Anatomy.
3. To approve MS exam and thesis committees and to approve PhD Candidacy and Dissertation committees.
4. To supervise the preparation, administration, and evaluation of the Master's Examination and Master's thesis and advise the appropriate committee in the preparation, administration, and evaluation of the Ph.D. Candidacy Exam and dissertation.
5. To act on petitions for exceptions to divisional policies.
6. To review and make recommendations on applications to the Anatomy Research and Travel Fund and any other graduate research or travel funds that are made available through departmental or university sources. Final approval is made by the Director of the Division of Anatomy.
7. To determine recipients of Anatomy awards such as the Margaret Hines award and any other divisional awards.
8. To develop the policies and procedures and to make changes in the Anatomy Graduate Program and revise this handbook accordingly.
9. To evaluate student progress and implement appropriate remediation and disciplinary procedures, as needed.

iii. Procedure: Decisions and recommendations of the GSC conform to Graduate School rules and divisional policies as published in this handbook or in supplementary instructions. Decisions and recommendations of the GSC are reached by majority vote. The majority of the GSC must vote for the results to be valid. (Note: Student member is a non-voting member.)

b. Graduate Faculty

i. Anatomy graduate faculty will be comprised of faculty recognized by the Graduate School at The Ohio State University by M or P status (http://www.gradsch.osu.edu/handbook/15-4-graduate-faculty-membership-

rights-and-responsibilities). Category M and P faculty must apply for graduate faculty status and be approved by the Graduate School and the GSC.

ii. Advisor

1. The following criteria must be met to serve as an *academic advisor* to either a Master's student:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must have a primary appointment in the Division of Anatomy.
2. The following criteria must be met to serve as a *research advisor* to a Master's student:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must apply for and be approved by the Graduate School as a Graduate Faculty Member in the Division of Anatomy. Please contact the Division of Anatomy's Administrative Assistant and/or the Director of the Division of Anatomy for the form.
    c. Faculty member must have a primary appointment in the Division of Anatomy or, if a primary appointment in Anatomy does not exist, a formal request must be made to the GSC for approval.
3. The following criteria must be met to serve as an *academic advisor* to a PhD student:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must have a primary appointment in the Division of Anatomy.
4. The following criteria must be met to serve as a *research advisor* to a PhD student:
    a. Faculty member must hold P status in the Graduate School at The Ohio State University.

b. Faculty member must apply for and be admitted as a Graduate Faculty Member with P status in the Division of Anatomy PhD program.
c. Faculty member must have a primary appointment in the Division of Anatomy or, if a primary appointment in Anatomy does not exist, a formal request must be made to the GSC for approval.

iii. Examination Committee Membership

1. The following criteria must be met to serve on a Master student's examination committee:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must have a primary appointment in the Division of Anatomy.

iv. Thesis Committee Membership

1. The following criteria must be met to serve on Master student's thesis committee:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must have a primary appointment in the Division of Anatomy or, if a primary appointment in Anatomy does not exist, a formal request must be made to the GSC for approval.

v. Dissertation Committee Membership

1. The following criteria must be met to serve on PhD student's dissertation committee:
    a. Faculty member must hold M or P status in the Graduate School at The Ohio State University.
    b. Faculty member must have a primary appointment in the Division of Anatomy or, if a primary appointment in Anatomy does not exist, a formal request must be made to the GSC for approval.

vi. Graduate Faculty will be reviewed annually by the GSC and Director of the Division of Anatomy to determine if their status should change.

1. Current list of Graduate Faculty in Anatomy is located at http://medicine.osu.edu/bmea/anatomy/graduate-studies/graduate-faculty-in-anatomy/pages/index.aspx.

III. ADMISSION TO THE ANATOMY GRADUATE PROGRAM

a. Admission into the Anatomy Graduate Program is typically limited to Autumn Semester. All dates listed below are in accordance with requirements for autumn admission. Spring semester or summer admission will only be granted under special circumstances.

b. All applicants must be in conformance with The Ohio State University Graduate School requirements. The following are admission criteria according to the Graduate School:

   i. Earned baccalaureate or professional degree from an accredited college or university.

   ii. Minimum GPA of 3.0 on a 4.0 scale on all previous undergraduate or graduate work. (See Appendix B for OSU's Standing Grading Scheme).

   iii. A scored TOEFL or equivalent English language exam. This requirement only applies to applicants from countries in which English is not the first language.

   iv. Any other requirements as indicated by the Graduate School and the GSC in Anatomy.

c. In addition, the Division of Anatomy requires that all of the following be provided for consideration of admission:

   i. An official transcript from each college or university attended, listing all courses taken, grades and degrees earned, and dates of graduation (official transcripts should be sent directly to the Admissions Office at The Ohio State University). Students who attended The Ohio State University should request a transcript through internal procedures.

   ii. A completed Graduate School Application Form http://gpadmissions.osu.edu/programs/. (Note: you will have to locate the Anatomy program and click either the Master of Science or Doctor of Philosophy link).

   iii. Three letters of recommendation from persons acquainted with the applicant's academic program, scholastic ability, and/or professional goals and objectives.

iv. A brief (1-2 pages) personal statement describing the applicant's educational and professional goals.

1. PhD applicants are strongly encouraged to highlight their specific teaching and research goals, potential research projects and mentors, as well as their career focus.
2. All applicants should use the personal statement as an opportunity to highlight any academic achievements and/or address any academic inconsistencies in their records.

v. Official scores from the Graduate Record Examination (GRE). Scores from an equivalent national examination (e.g., MCAT, DAT) may be substituted at the discretion of the GSC.

d. Upon receipt of the completed application, The Ohio State University Graduate Admissions Office will forward the material to the Anatomy GSC. A personal interview with the Anatomy GSC may be requested to clarify the applicant's potential for graduate study in Anatomy.

e. The last date for receipt of new applications to the Division of Anatomy is March 15th. Those wanting to be considered for fellowships must have their completed admission application submitted by December 1.

f. The Ohio State University Graduate Admissions office will inform the applicant of their rejection or acceptance.

g. Upon receiving formal notification of acceptance to the Anatomy program, the student is requested to inform the Division of Anatomy as to whether or not they accept a place in the program. A response from the student must be received by May 31st; otherwise, a place in the incoming graduate class cannot be guaranteed.

h. Deferment of acceptance for 1 year only may be allowed in special circumstances and is at the discretion of the Anatomy GSC.

IV. POLICIES AND REQUIREMENTS OF ALL GRADUATE STUDENTS

a. Faculty Advisor

i. Students will be assigned a faculty advisor by the Anatomy GSC once they have been accepted into the program. PhD students (and MS, if applicable) are encouraged to indicate a faculty member that they would like to work under in

their personal statement. A change of advisor can be accomplished using the Change of Advisor Form (Appendix A). Students are encouraged to change advisors when academic interests and program developments warrant such changes or when other academic-related circumstances, such as faculty availability, dictate a change. Changes for other than academic or programmatic purposes are discouraged. Students should meet with their Division of Anatomy advisor at least three times a year. Failure to do so will result in notification of the Graduate School of failure to comply with regulation.

b. Good Standing

i. Students must maintain a minimum cumulative grade point average of 3.0 (B) in all graduate courses (See Appendix B for OSU Standard Grade Scheme).

ii. Students must earn a 3.0 (B) or better in each of the Anatomy core courses.

1. If a grade of 3.0 (B) or better is not earned, the student may be given the opportunity to continue in the program, but may be required to re-take the course the following year at which time they must meet the 3.0 criterion. A student may also be required to complete additional course work to remediate the area of concern. Remediation opportunities are course specific, suggested by the course director, and approved by the GSC. Students are encouraged to meet with their advisors to discuss remediation plans set by the GSC.
2. A student may only enroll in each of the four core anatomy courses twice. Any aberration to this rule will require a petition from the student and their major advisor with an explanation of extraordinary circumstance.
3. If a student earns a D or below (see Appendix B for OSU Standard Grade Scheme) in one of the four core anatomy courses (i.e., Anatomy 6600, 6700, 6800, & 6900), the student will be considered not maintaining reasonable progress toward the Anatomy Program requirements. The GSC will notify the Graduate School and the student will be warned by the Graduate School that unless the student earns a B or higher in all core

anatomy courses in future semesters, the student will be dismissed from the program.

iii. Students must maintain reasonable progress towards all Anatomy Program requirements. The GSC will review student progress annually. If it is determined that the student is not making progress in the program, the GSC will notify the Graduate School and the student will be warned by the Graduate School that unless specific conditions set by the GSC and the student's advisor are met, the student will be dismissed from the program. If a student meets the specific conditions indicated by the Graduate School and is therefore permitted to remain in the program, the GSC and the student's advisor will decide the form of any additional remediation deemed necessary to ensure the student continues making progress in the program.

c. Teaching

i. All MS students are strongly encouraged to gain teaching experience as part of their graduate training, as directed by their academic advisor.

ii. All PhD students are required to gain teaching experience, as directed by their academic advisor, as part of their graduate training.

d. Research

i. All graduate students are strongly encouraged to participate in research as part of their graduate training.

ii. If a research degree is sought (i.e., MS thesis tract or PhD), supervision of the research project will be the responsibility of the student's academic and research advisors and thesis/dissertation committee.

iii. Those students engaged in research for the perspective degree will be required to submit a project outline (i.e., a specific aims page) to the GSC for review with indication of designated committee at the end of their second semester of enrollment. If the GSC finds the document to be inadequate or is of concern, the student may be required to defend the project to the GSC.

e. Requests & Petitions

i. Note that all requests and petitions to the GSC must be in writing and must be accompanied by the written consent of the student's advisor(s).

V. MASTER'S PROGRAM IN ANATOMY

a. The Anatomy Master's Program is designed to prepare students for continuing their education in a professional degree program (e.g., MD, DDS, DPT etc.) or for dissertation work in a PhD program. The Anatomy Master's Program also prepares graduates to teach Anatomy or pursue a career in a health-related industry.

b. All Master's students must complete the formal requirements for a Master of Science in Anatomy. All requirements should be complete by the end of the 2nd year of study.

i. Credit Hour and Residency Requirements

1. A minimum of 30 graduate credit hours are required to earn a Master's degree in Anatomy. Twenty-four of those credit hours must be completed at The Ohio State University over a period of at least two semesters. A student must be registered for at least three graduate credit hours the semester in which graduation is expected.

ii. Programs

1. There are two master's degree program tracts within the Division of Anatomy: 1) **Thesis** tract and 2) **Non-Thesis** tract. Students may pursue either plan, subject to the rules of the Anatomy GSC and Graduate Handbook. Students are encouraged to choose their tract by the completion of the first semester. Students enrolled in combined degree programs (i.e., simultaneous professional and graduate programs) must pursue the Thesis Plan.

iii. Required Core Courses

Course	Credits	Semester Offered
Anatomy 6600 – Human Embryology	2	Autumn (annually)
Anatomy 6700 – Human Histology	4	Spring (annually)
Anatomy 6800 – Human Neuroanatomy	4	Spring (annually)
Anatomy 6900 – Human Gross Anatomy for Graduate Students	8	Autumn (annually)

1. All master's students must complete four credit hours of seminar approved by the advisor. Two of the four credit hours must be taken in Anatomy.

Course	Credits	Semester Offered
Anatomy 7890 – Anatomy Seminar in Education	1	Spring (annually)
Anatomy 7891 – Anatomy Seminar in Research	1	Autumn (annually)

2. Additional credit hours to meet requirements should be completed by scheduling elective courses either within or outside the Division of Anatomy. A sample curriculum can be found in Appendix C.
3. The GSC may excuse a student from one or more of the program's core courses if they decide that the student has had an equivalent course at The Ohio State University or another institution. In such cases, the student may be required to take advanced courses in the same sub-discipline.

iv. Master's Examination

1. All Master's students are required to satisfactorily complete both a written and an oral portion of the Master's Examination.
2. The Master's Examination is a test of the student's knowledge of the field of Anatomy and represents the final performance validation for a Master's Degree in Anatomy. The Master's Examination Committee will consist of the *candidate's academic advisor and at least two other members of the Anatomy Graduate Faculty agreed upon by both the student and their academic advisor*. The student passes the Master's Examination only when the decision of the Master's Examination Committee is unanimously affirmative.

3. Thesis Tract

a. Master's Examination Committee

i. The student, in consultation with the research and academic advisor, will form a Master's Examination Committee appropriate for the student's area of specialization. The Master's Examination Committee must consist of at least three faculty members including the Master student's academic advisor (who will serve as the committee chair), research advisor, and a minimum of one other faculty representative of the Division of Anatomy. [See above (Section II.b.iv.) for the committee membership criteria].

b. Master's Thesis

i. The Master's Thesis will be one publishable-quality research paper in the student's area of specialization. Ideally, the research will be based on original data collected by the student, but may also be based on archival or existing data. Regardless of the source of data, the Master's Thesis must be an original contribution to knowledge that demonstrates the student's ability to develop and complete a hypothesis-based research project. A literature review does not meet the requirement for a Master's Thesis in Anatomy.

ii. The student shall submit to their academic and research advisors for approval, a comprehensive draft of the Master's Thesis (http://www.gradsch.ohio-state.edu/completing-your-degree/dissertations-theses/document-preparation). If the advisors approve, the student will submit a final draft of the Master's Thesis to the members of the Master's Examination Committee for review at least 2 weeks prior to the anticipated oral exam date. Upon agreement by the Master's Examination Committee that the thesis meets their requirements for

progression, the candidate will be informed to confirm the oral presentation schedule of their Master's Thesis, which will be open to the public.

iii. The student will present their Master's Thesis in a 60 minute open seminar. Following the oral presentation, there will be an opportunity for questions from the audience in attendance. Following the public portion of the Master's Thesis presentation, the Master's Examination Committee will have an opportunity to question the candidate during a closed session on the written thesis, as well as any Anatomy-related content. Closed-door questioning should not exceed 2 hours in duration. Any recommendations suggested by the Master's Examination Committee following submission of the written thesis and/or the candidate's oral presentation will be discussed and agreed upon by consensus of the student and the Master's Examination Committee.

4. Non-Thesis Tract

a. Master's Examination Committee

i. The student, in consultation with the academic advisor, will form a Master's Examination Committee. The academic advisor will chair the Master's Examination Committee. [See above (section II. b. iii) for the committee composition.]

ii. Generally, the 4 sub-disciplines of Anatomy should be represented by the academic advisor and at least 2 other committee members.

1. Each committee member will be responsible for the examination topic(s) that they represent.

b. The Non-Thesis Master's Examination will consist of both a written and an oral portion.

i. The GSC will choose a date for the written portion. The Master's Examination Committee will decide on the content of the written portion of the examination. Exam questions should be approved by the Master's Examination Committee Chair (i.e., the student's academic advisor) prior to the exam. The student should be permitted 2 hours per sub-discipline for a total of eight hours to complete the exam spanning 2 days with 2 sub-disciplines covered each day.

ii. After completion of the written, the Master's Examination Committee determines whether the student can continue on to take the oral portion of the exam.

1. The Master's Examination Committee Chair will inform the student of the status of the written exam prior to the scheduled oral exam. Satisfactory is considered at least a B in all sub-disciplines individually. (See Appendix B for OSU's Standard Grade Scheme).
2. If the result of the written exam is unsatisfactory, the oral exam will not be allowed to take place.
3. If the result of the written exam is unsatisfactory in only 1 sub-discipline, the committee can decide to allow the oral exam to take place.
4. General feedback for areas of improvement in each sub-discipline from the academic advisor is appropriate to share with the student, but detailed discussions should be reserved for the oral portion of the exam.
5. The written portion of the exam will not be returned to the student.

iii. The oral portion of the Non-Thesis Master's Examination is scheduled **at least one week** after the completion of the written exam and will take approximately two hours with at least two Division of Anatomy faculty examiners present. The content of the oral examination is based upon elaboration of written exam questions/answers as well as additional topics related to course-work.

c. In the event that the Master's Examination is unsatisfactory, the student may be permitted to take a second Master's Examination unless the examiners unanimously recommend against it. This exam can take place no earlier than 4 weeks after the initial failed examination.

i. If the student must repeat the exam, **both the written and oral portions must be completed again**, unless the Exam Committee decides otherwise.

d. The student must meet all graduation requirements for the Master's Program in Anatomy stated in The Ohio State University Graduate School Handbook. This includes completion and submission of the Master's Examination Report to The Ohio State University Graduate School, as well as an application to graduate (http://www.gradsch.ohio-state.edu/masters-examinations.html) by the published university (http://www.gradsch.ohio-state.edu/registration-deadlines.html) deadlines.

e.

v. Progression to PhD

1. Successful completion of the master's degree does not imply that the candidate may automatically continue his/her graduate education for the doctoral degree. Students who wish to pursue the doctoral degree upon completion of the master's degree must be recommended by the Examination Committee and formally approved by the Division of Anatomy GSC and the student's prospective PhD research advisor.

a. It is strongly suggested that any student wishing to continue in the PhD program demonstrate an area of research concentration and identify a potential faculty advisor.
b. To be considered for admission to the PhD program under these specific circumstances, the student must successfully complete the master's degree and provide the GSC an updated personal statement, three letters of recommendation, and student advising report (unofficial transcript) no later than March 15th, or the examination report deadline for the semester in which they are graduating with the MS, whichever date is earlier.
c. The GSC will evaluate the applicant's fit with the PhD program based on their professional progress during the master's degree, previous experience, and the ability to identify a potential and feasible research project/topic and research advisor for the PhD.

VI. PHD PROGRAM IN ANATOMY

a. The Doctor of Philosophy degree program in Anatomy gives students the opportunity to achieve a high level of scholarly competence and excellence in the anatomical sciences. During the course of study, the student has the option to specialize in one or more areas of anatomical research represented by current Graduate Faculty in Anatomy. The option is also available to engage in anatomy-related subspecialties outside the division, subject to approval by the Division of Anatomy GSC.
b. All doctorate students must complete the formal requirements for a Doctor of Philosophy in Anatomy. Students are strongly encouraged to complete all requirements by the end of the 5th year of study (e.g., credit hour and residency, course of study, candidacy exam, and dissertation, etc.). Additional time for completion may be requested by submitting a petition to the Division of Anatomy GSC.

i. Credit hour and Residency Requirements:

1. A minimum of 80 graduate credit hours beyond the baccalaureate degree is required to earn a doctoral degree in Anatomy. If the student has earned a Master's degree, then a minimum of 50 graduate credit hours beyond the master's degree is required to earn a doctoral degree. If the

master's degree was earned at another university, it must be transferred to The Ohio State University to apply towards the 80 total credit hours needed for a doctoral degree. If a Master's degree was earned at The Ohio State University, and graduate credits in excess of those required for that degree were earned, those courses can be counted towards the additional 50 credits required for the PhD. This request can be made by the student's advisor with permission from the GSC and must occur no later than the end of the first semester of enrollment beyond completion of the Master's degree.

2. All doctoral students in Anatomy must fulfill the Graduate School's "Residence and Credit Hour Requirements" (http://www.gradsch.ohio-state.edu/handbook/all#7-2). The residence and credit hour requirements must be fulfilled after the master's degree has been earned or after the first 30 hours of graduate credit have been completed.
    a. A minimum of 24 graduate credit hours must be completed at The Ohio State University.
    b. A minimum of two consecutive pre-candidacy semesters or one semester and a summer session with full time enrollment must be completed while in residence at this university.
    c. A minimum of six graduate credit hours over a period of at least two semesters or one semester and a summer session must be completed after admission to candidacy. All students who successfully complete the doctoral candidacy examination will be required to be enrolled in every semester of their candidacy (summer session excluded) until graduation. Students must be enrolled for at least three credits per semester.

c. Course of Study:
    i. The course of study for a PhD student is developed by the student and advisor to best prepare the student for their career goals. A custom-built curriculum is encouraged and may or may not be in one of the areas of specialization offered

by Anatomy Graduate Faculty. Select courses are required regardless of the course of study.

ii. Required Core Courses

Course	Credits	Semester Offered
Anatomy 6600 – Human Embryology	2	Autumn (annually)
Anatomy 6700 – Human Histology	4	Spring (annually)
Anatomy 6800 – Human Neuroanatomy	4	Spring (annually)
Anatomy 6900 – Human Gross Anatomy for Graduate Students	8	Autumn (annually)

iii. Other Course Requirements:

1. All doctoral students must complete six credit hours of seminar approved by the advisor. Two of the six credit hours must be taken in Anatomy.

Course	Credits	Semester Offered
Anatomy 7890 – Anatomy Seminar in Education	1	Spring (annually)
Anatomy 7891 – Anatomy Seminar in Research	1	Autumn (annually)

2. At least 2 courses in research methodology (e.g., statistics, research methods, grant writing etc.). (See Appendix D for examples.)
3. All doctoral students must complete a minimum of 12 credit hours of advanced courses at the 7000 level or above within or outside the Division of Anatomy, with approval of the academic and research advisors. This does not include research hours (i.e., Anat 8999).
4. All doctoral students are required to take a minimum of 16 credit hours of coursework outside the Division of Anatomy. Courses will be chosen by the student and academic and research advisors. These courses should be chosen to enhance the student's specific area of interest.

5. Additional credit hours to meet requirements should be completed by scheduling elective courses either within or outside the Division of Anatomy that are consistent with the educational goals set forth by the student and their advisors.
6. With permission of the GSC, students may be excused from taking any of the required courses if adequate proficiency or equivalency can be demonstrated. The GSC may approve a customized course of study. The plan should be submitted by the student and his/her advisors by the end of their 2nd year of the program.

d. Potential Areas of Specialization

i. The specific expectations of students pursuing the PhD with an area of specialization are set forth by the advisor and the GSC. The advisor should be a faculty member with expertise in the area of specialization.

ii. Biomedical Research Program

1. The overall objective of the Division of Anatomy Biomedical Research Program is to provide an educational background for students wishing to become an NIH-funded principal investigator that includes a fundamental understanding of the four major subdisciplines in Anatomy (Gross, Neuro, Histo, & Embryo) in conjunction with a strong background in Molecular and Cellular Biology. This type of integrated program will provide students with the knowledge necessary to understand the anatomic basis of the cellular and molecular mechanisms underlying normal and abnormal development of all the major organ systems. The Division of Anatomy Biomedical Research Program consists of two distinct tracks, Biomedical Sciences and Molecular, Cellular & Developmental Biology. Students should discuss with their assigned advisor which track is appropriate for their specific career goals.
2. A list of suggested courses for the Biomedical Sciences Track and Molecular, Cellular & Developmental Biology Track is provided in Appendix D2.

iii. Educational Research Program

1. The educational track for PhD students in the Division of Anatomy prepares students for the rigor of a career in academia with a focus on scholarly work in the area of educational research (e.g., development and evaluation of instructional tools and/or teaching methods). Students will complete not only courses in the four anatomical subdisciplines (i.e., gross anatomy, histology, embryology, and neuroanatomy), but also in areas such as learning theory, educational research methods, and applied statistics. The goal of this track is to produce graduates that are experienced anatomical educators and are prepared to successfully develop, execute, and publish high-impact research in the area of educational research.
2. Teaching experience is required (usually in undergraduate or professional anatomy courses).
3. For a list of suggested courses, see Appendix D3.

e. Doctoral Anatomy Competency Examination

All PhD students will be required to demonstrate adequate anatomical knowledge prior to admission to candidacy by sitting for a comprehensive oral examination comprised of the 4 core areas of anatomy. The student, in consultation with the academic advisor, will form an Oral Examination Committee, comprised of at least 3 Primary Appointed Anatomy Faculty. This oral examination will last approximately 2 hours, but will not exceed 3 hours. The Faculty will make recommendation on passing by majority vote of the committee. If the student is deemed to have unsatisfactory knowledge, the student may repeat the exam once within 12 months of the original oral exam date. Failure to pass this examination will result in dismissal from the program. Successful passing of this oral examination must precede the Candidacy Examination. This requirement may be waived if the student completed the non-thesis track Master's Degree in Anatomy at The Ohio State University.

f. Candidacy Examination

i. All doctoral students are required to satisfactorily complete both a written and an oral portion of the Candidacy Examination and be in good standing with The Ohio State University Graduate School.

ii. All required coursework should be completed prior to taking the Candidacy Exam; however, the Candidacy Exam Committee may recommend/require additional coursework. The Candidacy Exam should be taken before the completion of the 3rd year of study.

iii. The Candidacy Examination is a single examination consisting of two portions, written and oral, administered under the auspices of the Division of Anatomy GSC in conjunction with the student's Candidacy Examination Committee and The Ohio State University Graduate School (http://www.gradsch.ohio-state.edu/handbook/all#7-8).

iv. The prospective doctoral candidate will be examined for general knowledge of the anatomical sciences and in-depth knowledge of his/her selected area of specialization. It evaluates the student's capacity to undertake independent research and his/her ability to think and express ideas clearly. The Candidacy Examination may be weighted in the student's areas of specialization as determined by the student's advisors in conjunction with the Candidacy Examination Committee.

v. The Candidacy Examination Committee will consist of the student's academic advisor, who will serve as the committee chair, their research advisor, and at least two additional graduate faculty members as decided by the student and their advisors. Three of the four members of the examination committee must be faculty within the Division of Anatomy with a minimum of one of these members being a representative of the Division of Anatomy GSC. It is recommended but not required that the dissertation and candidacy committees are comprised of the same members.

    1. For the written portion of the Candidacy Exam, the student will prepare a formal NIH-style research proposal or appropriately formalized research proposal specific to the content area. The student shall submit to their academic advisor and research advisors for approval, a comprehensive draft of the Candidacy Examination Proposal. Before the oral portion of the exam is scheduled, the advisor(s) must approve of the written portion before dissemination to the full committee. The written proposal will be

distributed to the Candidacy Examination Committee at least 2 weeks in advance of the anticipated oral Candidacy Exam date. Upon agreement by the Candidacy Committee that the dissertation proposal meets their requirements for progression, the candidate will be informed to confirm the oral Candidacy Exam schedule, which will be closed to the public.

vi. The oral portion will begin with the student delivering a 60 minute presentation of their proposed study. The Candidacy Oral Examination should last approximately 2 hours.

vii. Successful completion of the Candidacy Examination requires a unanimously affirmative decision by the Candidacy Examination Committee. Provided that the student is in good standing at the end of the semester in which the Candidacy Examination is satisfactorily completed; the student will be identified as candidacy at the end of that semester.

viii. If a candidate fails to submit the final copy of their dissertation to The Ohio State University Graduate School within five years of being admitted to candidacy, the candidacy is cancelled.

ix. A Master's in Anatomy shall not be awarded automatically with the passage of the Doctoral Candidacy Examination. This degree will be awarded only on the basis of extenuating circumstances for the doctoral candidate involved. The extenuating circumstances shall be presented in writing by the doctoral candidate and their academic advisor to the Division of Anatomy GSC for review and final approval.

g. Dissertation

i. All Graduation Requirements for a Doctoral Degree as prescribed in The Ohio State University Graduate School Handbook (http://www.gradsch.ohio-state.edu/handbook/all#7-16) must be met.

ii. All doctoral candidates must successfully complete the Final Oral Examination (Defense of Dissertation) covering the dissertation and related fields of investigation.

iii. The Dissertation Committee is composed of the candidate's academic and research advisors, and at least two other authorized Graduate Faculty members.

Three of the four members of the examination committee must be faculty within the Division of Anatomy with a minimum of one of these members being a representative of the Division of Anatomy GSC. It is recommended but not required that the dissertation and candidacy committees are comprised of the same members.

iv. All doctoral candidates are encouraged to seek both outside and inside (e.g., http://www.gradsch.ohio-state.edu/funding1.html) sources of funding for their research project.

1. Written Dissertation

a. The Written Doctoral Dissertation should be based on data collected by the candidate and must make an original contribution to scientific knowledge related to anatomy. It is the responsibility of the advisors, members of the Dissertation Committee, and the candidate to assure that the proposed dissertation research is carefully designed, properly tested, and has significant impact in their field of study.

b. The doctoral candidate shall submit to their academic and research advisors for approval, a comprehensive draft of the Doctoral Dissertation (http://www.gradsch.ohio-state.edu/dissertations-and-theses.html). If the advisors approve, the student will submit a final draft of the Doctoral Dissertation to the members of the Dissertation Examination Committee for review at least three weeks prior to the anticipated oral exam date. Upon agreement by the Dissertation Examination Committee that the dissertation meets their requirements for progression, the candidate will be informed to confirm the oral presentation schedule of their Dissertation, which will be open to the public.

c. A Draft Approval/Notification of Final Oral Examination form must be submitted to The Ohio State University Graduate School no later than two weeks before the Final Oral examination is scheduled.

d. Final approval of the candidate's dissertation cannot occur until the Final Oral Examination has been satisfactorily completed (see below)

and each Dissertation Committee member signs the Final Approval form for the candidate's dissertation.

e. The approved dissertation and a 500-word abstract must be submitted to The Ohio State University Graduate School in accordance with all graduate school guidelines (http://www.gradsch.ohio-state.edu/registration-deadlines.html).

2. Final Oral Examination

a. The Final Oral Examination tests originality, independence of thought, the ability to synthesize and interpret, and the quality of the research presented. The examination concerns principles and historic perspective as well as original data and the ability to successfully test a valid hypothesis. The examination includes but is not limited to discussion of the dissertation.

b. In addition to the Dissertation Committee, a Graduate Faculty Representative will be appointed by the graduate school to attend the Final Oral Examination.

c. The Final Oral Examination will be held after the candidate presents their research in a 60-minute formal presentation open to the university community. At least two hours must be allotted to closed-door discussion of the research and committee questions.

d. The candidate is considered to have successfully completed the Final Oral Examination upon unanimous affirmation from the Final Examination Committee.

VII. GRADUATE STUDENT TRAVEL POLICY

All Anatomy Graduate Student Travel is subject to approval by the Anatomy Division Director. All applications for funded travel should be submitted using "Application for Anatomy Graduate Student Travel Funds" (**Appendix H**) initially to the Graduate Studies Committee for recommendation to the Division Director. The application must be approved prior to submitting a conference abstract. Failure to do so will likely result in lack of approval for travel funds.

Travel will only be approved if the following conditions are met:

1) Student is presenting a poster/platform talk/workshop or is on a student committee of the organization. Proof must be provided by presenting an accepted abstract email or equivalent.
2) The professional meeting must be held by a recognized scientific organization or workshop supported by a recognized scientific organization.
3) Student must be a member of the professional organization. The Division of Anatomy does not provide membership funds to graduate students.
4) Student must be registered for the meeting in order to travel to said meeting. Registration should occur in the "Early Bird Phase" in order to receive the cheapest student rate. If the student does not register in the early bird phase and are still approved for travel, the student will burden the cots difference. If the student cannot show proof of registration the student will not be reimbursed for travel.
5) Student must show proof of application for funds from other entities including travel awards from the professional organization hosting the meeting or from the OSU Graduate School.

Penultimate year PhD students are highly encouraged to attend professional society meetings and will receive first priority if funds are limited. 1st year Master's students are prohibited from applying for funded travel. Exceptions will only be made under appeal to the Division Director in writing.

Students wishing to fund their own professional travel are subject to the normal leave policies found ~~here~~in the Graduate Handbook (http://www.gradsch.ohio-state.edu/handbook/all#E-1).

VIII. GRADUATE FINANCIAL SUPPORT

a. Fellowships

i. Descriptions of Graduate School funded fellowships can be found in The Ohio State University Graduate School Handbook (http://www.gradsch.ohio-state.edu/funding).

b. Divisional Support

i. Graduate Associate positions provide financial assistance in exchange for the student's assistance in teaching and/or research. Appointments are usually made for 50 percent time of service in return for a monthly stipend and tuition support. To receive these benefits, the student must also be enrolled in at least the minimum graduate credit hours set by the Graduate School

(http://www.gradsch.osu.edu/Depo/PDF/GA_GFappointments.pdf). Financial support will be based on availability of funds.

1. **Graduate Research Associate (GRA)** - provides financial assistance in exchange for the student's assistance with a faculty member's research. Certain faculty members may have research grants that provide funds for GRAs to work with the faculty member.
2. **Graduate Teaching Associate (GTA)** - provides financial assistance in exchange for teaching service. Applications for a GTA position are due in the Spring semester for assistance in the following academic year.
    a. Guidelines and General Information for GTAs are listed in Appendix E.

ii. Hines Scholarship for Graduate Students in Anatomy

1. This scholarship is funded through the Margaret H. Hines and Richard J. Hines Memorial Scholarship Fund established to honor the career and dedication of Dr. Margaret Hines as an educator and mentor in the Field of Anatomy. It is designed to encourage young scholars to pursue careers in anatomy education. All full-time graduate students in good standing in the Division of Anatomy are eligible for the scholarship, but must be nominated by a faculty member in the Division of Anatomy. Funds will be applied to the awardee's graduate school tuition or educational expenses.
2. Once notified by the GSC chair that they have been nominated, graduate students then apply for the Margaret H. Hines and Richard J. Hines Memorial Scholarship Fund by application to the Anatomy GSC Chair. The successful applicant will have exemplified teaching excellence at the appropriate level for their contribution to the teaching mission in the Division of Anatomy. The Division of Anatomy faculty will review applications and recommend a recipient to the Director of the Division of Anatomy.

IX. COMBINED PROGRAMS

a. Students in combined programs (http://www.gradsch.ohio-state.edu/handbook/all#8-1) are enrolled concurrently in the Graduate School and in a professional school (e.g., Dentistry, Medicine).

b. The Graduate School, the Anatomy GSC, and the professional school admit students enrolled in combined programs. The application materials are to be sent to The Ohio State University Admissions Office. The Admissions Office notifies the applicant of the Anatomy GSC's admission decision. Applicants must submit the same credentials required of other applicants to the graduate program.

c. The student and their academic advisor will determine the number of credit hours a combined program student registers for each semester. All master's and doctoral degree requirements apply to students enrolled in combined programs.

d. The student's academic advisor must designate the courses to be counted for graduate credit only, the courses to be counted for professional credit only and the courses counted for credit in both programs.

X. GRADUATE MINOR IN ANATOMY

a. The Graduate Minor in Anatomy offers students enrolled in Graduate School at The Ohio State University the opportunity to study one or more of the sub-disciplines of human anatomy, which may be of direct benefit to their major field of research and provide an added dimension to their scholarly training. Students who complete a Minor in Anatomy will have this achievement recognized on their university transcript.

b. A Graduate Minor in Anatomy may benefit any graduate student whose research involves human form and function. The Minor may be of particular interest to students in engineering, computer modeling, physical anthropology, art, exercise science, or other biological/health sciences.

c. A minimum of 12 semester hours of credit for courses in Anatomy are required to receive a Graduate Minor in Anatomy. These hours must be distributed among at least four anatomy courses (Anatomy 6900 counts as two courses) and they must include 2 of the 4 core courses: Anatomy 6600, Anatomy 6700, Anatomy 6800, and Anatomy 6900. Students must receive a grade of B (or better) or S in each course comprising the Graduate Minor in Anatomy.

d. The student will consult with the Chair of the Anatomy GSC to choose courses that best suits the student's scholarly objectives.

XI. GRADUATE NON-DEGREE

a. Applicants who do not intend to pursue a graduate degree at The Ohio State University may apply for the Graduate Non-Degree Program. The Anatomy GSC must approve the applicant to enroll in Anatomy graduate courses. The Graduate Non-Degree Program allows the applicant to accrue seven hours of graduate credit that may be transferred to a graduate program when the applicant decides to pursue a graduate degree.

XII. APPENDICES

Appendix A: Change of Graduate Faculty Advisor Form

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

Division of Anatomy
440 Hamilton Hall
1645 Neil Ave.
Columbus, OH 43210
614-366-2559 Phone
614-292-7659 Fax
http://go.osu.edu/anatomy

Change of Graduate Faculty Advisor Form

Student Name _____ OSU name.# _____ Student # _____

I am requesting to change my advisor for my ◯ MS ◯ PhD degree in Anatomy

effective _____.
semester/year

Student's Signature ***Date***

My previous and new advisors agree to this change:

Previous Advisor's Signature ***Printed Name*** ***Employee #***

New Academic Advisor's Signature ***Printed Name*** ***Employee #***

Research Advisor's Signature (If applicable) ***Printed Name*** ***Employee #***

This change is approved by the Graduate Studies Committee Chair:

GSC Chair's Signature ***Printed Name*** ***Date***

Return this completed form to Melody Barton (Melody.Barton@osumc.edu) or hard-copy to 440 Hamilton Hall

Appendix B: OSU Standard Grading Scheme and Credit Points

Letter Grade	Numerical Grade	Credit Point Value
A	93 – 100	4.0
A-	90 – 92.9	3.7
B+	87 – 89.9	3.3
B	83 – 86.9	3.0
B-	80 – 82.9	2.7
C+	77 – 79.9	2.3
C	73 – 76.9	2.0
C-	70 – 72.9	1.7
D+	67 – 69.9	1.3
D	60 – 66.9	1.0
E	Below 60	0

Note: Please see (https://resourcecenter.odee.osu.edu/carmen/using-grade-schemes) for the OSU Standard Grade Scheme and (http://trustees.osu.edu/rules/university-rules/chapter-3335-8-instruction.html) for the University's By-Laws on credit points.

Appendix C: Master's in Anatomy Sample Curriculum

Autumn Year 1	Spring Year 1
Anatomy 6900 ***(REQUIRED)*** Gross Anatomy for Graduate Students 8 credits **Anatomy 6600** ***(REQUIRED)*** Human Embryology 2 credits **Anatomy 7891** ***(REQUIRED)*** Anatomy Seminar in Research 1 credit	**Anatomy 6700** ***(REQUIRED)*** Human Histology 4 credits **Anatomy 6800** ***(REQUIRED)*** Human Neuroanatomy 4 credits **Anatomy 7890** ***(REQUIRED)*** Anatomy Seminar in Education 1 credit
Autumn Year 2	**Spring Year 2**
Elective 1 – ***Course optional*** **Elective 2 –** ***Course Optional*** **Any Graduate Seminar** ***(REQUIRED)*** 1 credit	**Elective 1 –** ***Course optional*** **Elective 2 –** ***Course Optional*** **Any Graduate Seminar** ***(REQUIRED)*** 1 credit

Appendix C2: Master's in Anatomy Sample Curriculum – Suggested Electives

Autumn	Spring	Summer
Physiology 6101 Advanced Human Physiology I 3 credits **Anatomy 6193** Individual Studies in Anatomy 1-5 credits **Anatomy 7289** Practicum: Developing Educational Components 1-4 credits **Anatomy 8110** Advanced Studies in Histology 2 credits **Anatomy 8130** Advanced Studies in Neuroanatomy 2 credits **Anatomy 8140** Advanced Regional Dissection with Anatomy Faculty 2-4 credits **Anatomy 8289** Anatomy Teaching Practicum 1-4 credits	**Physiology 6102** Advanced Human Physiology II 3 credits **Anatomy 6193** Individual Studies with Anatomy Faculty 1-5 credits **Anatomy 7289** Practicum: Developing Educational Components 1-4 credits **Anatomy 7500** Imaging in Anatomy 2 credits **Anatomy 7900** Clinically Oriented Anatomy 3 credits **Anatomy 8120** Advanced Studies in Embryology 2 credits **Anatomy 8140** Advanced Regional Dissection 2-4 credits **Anatomy 8289** Anatomy Teaching Practicum 1-4 credits	**Anatomy 5300** Learning Human Anatomy through Dissection 2 credits **Anatomy 6193** Individual Studies with Anatomy Faculty 1-5 credits **Anatomy 7289** Practicum: Developing Educational Components 1-4 credits **Anatomy 8140** Advanced Regional Dissection 2-4 credits **Anatomy 8289** Anatomy Teaching Practicum 1-4 credits

Appendix D: PhD in Anatomy Sample Curriculum

Autumn Year 1	Spring Year 1
Anatomy 6900 ***(REQUIRED)*** Gross Anatomy for Graduate Students 8 credits **Anatomy 6600** ***(REQUIRED)*** Human Embryology 2 credits **Anatomy 7891** ***(REQUIRED)*** Anatomy Seminar in Research 1 credit	**Anatomy 6700** ***(REQUIRED)*** Human Histology 4 credits **Anatomy 6800** ***(REQUIRED)*** Human Neuroanatomy 4 credits **Anatomy 7890** ***(REQUIRED)*** Anatomy Seminar in Education 1 credit
Year 2	**Year 3**
See Appendix D2 or D3	See Appendix D2 or D3
Year 4	**Year 5 (if applicable)**
See Appendix D2 or D3	See Appendix D2 or D3

Appendix D2: PhD with Biomedical Research Suggested Courses

Biomedical Science Program Track (BSGP)

<table>
<tr><th colspan="2">Summer Year 1</th></tr>
<tr><td colspan="2">BSGP 8050 (SUGGESTED)
Research Techniques and Resources
4 credits</td></tr>
<tr><th>Autumn Year 2</th><th>Spring Year 2</th></tr>
<tr><td>BSGP 7000 (REQUIRED)
Biomedical Sciences Concepts
6 credits

ANAT 7999 (Pre-Candidacy/SUGGESTED)
Research in Anatomy
1-2 credits</td><td>BSGP 7040 (REQUIRED)
Research Problem Solving Biomedical Sciences
4 credits

PHARM 7510 (SUGGESTED)
Professional & Ethical Issues in Biomedical Sciences
2 credits

ANAT 7999 (Pre-Candidacy/SUGGESTED)
Research in Anatomy
1-2 credits</td></tr>
<tr><th colspan="2">Summer Year 2</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 3</th><th>Spring Year 3</th></tr>
<tr><td>BSGP 7070 (SUGGESTED)
Fundamentals of Grant Writing
4 credits

ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th colspan="2">Summer Year 3</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 4</th><th>Spring Year 4</th></tr>
<tr><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th colspan="2">Summer Year 4</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 5 (as needed)</th><th>Spring Year 5 (as needed)</th></tr>
<tr><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
</table>

<table>
<tr><th colspan="2">MOLECULAR, CELLULAR & DEVELOPMENTAL BIOLOGY PROGRAM TRACK (MCDB)</th></tr>
<tr><th colspan="2">Summer Year 1</th></tr>
<tr><td colspan="2">IBGP 8050 (SUGGESTED)
Research Techniques and Resources
4 credits</td></tr>
<tr><th>Autumn Year 2</th><th>Spring Year 2</th></tr>
<tr><td>MOLGEN/BIOCHEM 5701 (REQUIRED)
DNA Transactions & Gene Regulation
4 credits

BIOCHEM 6761 (REQUIRED)
Macromolecular Structure & Function
3 credits

ANAT 7999 (Pre-Candidacy/SUGGESTED)
Research in Anatomy
1-2 credits</td><td>MOLGEN 5705 (REQUIRED)
Cell Biology
2 credits

PHARM 7510 (SUGGESTED)
Professional & Ethical Issues in Biomedical Sciences
2 credits

ANAT 7999 (Pre-Candidacy/SUGGESTED)
Research in Anatomy
1-2 credits</td></tr>
<tr><th colspan="2">Summer Year 2</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 3</th><th>Spring Year 3</th></tr>
<tr><td>IBGP 7070 (SUGGESTED)
Fundamentals of Grant Writing I
2 credits

ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>IBGP 7080 (SUGGESTED)
Fundamentals of Grant Writing II
2 credits

ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th colspan="2">Summer Year 3</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 4</th><th>Spring Year 4</th></tr>
<tr><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th colspan="2">Summer Year 4</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 5 (as needed)</th><th>Spring Year 5 (as needed)</th></tr>
<tr><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td><td>ANAT 8999 (Post-Candidacy/REQUIRED)
Research in Anatomy
2-8 credits</td></tr>
</table>

Appendix D3: PhD with Educational Research Suggested Courses *(Please work with your advisor on appropriate course sequence)*

<table>
<tr><th colspan="2">EDUCATIONAL RESEARCH PROGRAM TRACK</th></tr>
<tr><th colspan="2">Summer Year 1</th></tr>
<tr><td colspan="2">ESQREM 6625 (REQUIRED)
Introduction to Educational Research
3 credits

ANAT 8289 (REQUIRED)
Anatomy Teaching Practicum
1 credit
(Previous Spring Semester enrolled for ANAT 7289
Practicum: Developing Educational Components 1 credit)</td></tr>
<tr><th>Autumn Year 2</th><th>Spring Year 2</th></tr>
<tr><td>ESQREM 6641 (REQUIRED)
Introduction to Educational Statistics
4 credits

ESEPSY 7404 (REQUIRED)
College Teaching
3 credits

ESQREM 6621
Introduction to Educational Evaluation
3 credits

ANAT 7289
Practicum: Developing Educational Components
1-4 credits

ANAT 8289
Anatomy Teaching Practicum
1-4 credits</td><td>ESQREM 7635 (REQUIRED)
Advanced Research Methods
3 credits

ESQREM 7651 (REQUIRED)
Regression Analysis
4 credits

ESQREM 7627 (SUGGESTED)
Sampling Designs and Survey Research Methods
3 credits

ANAT 7289
Practicum: Developing Educational Components
1-4 credits

ANAT 8289
Anatomy Teaching Practicum
1-4 credits</td></tr>
<tr><th colspan="2">Summer Year 2</th></tr>
<tr><td colspan="2">ANAT 7999 (Pre-Candidacy/REQUIRED)
Master Research in Anatomy
2-8 credits</td></tr>
<tr><th>Autumn Year 3</th><th>Spring Year 3</th></tr>
<tr><td>ESQREM 6661 (REQUIRED)
Introduction to Educational Measurement
3 credits

ESQREM 7648 (REQUIRED)
Univariate Experimental Design (w/ 2 hr lab)
4 credits

ESEPSY 7403
Motivation in Learning and Teaching
3 credits</td><td>ESQREM 8648 (REQUIRED)
Multivariate Experimental Designs
4 credits

ESQUAL 7230
Qualitative Research for Educators
3 credits

PHYSIO 6102
Advanced Human Physiology II
3 credits</td></tr>
</table>

PHYSIO 6101 Advanced Human Physiology I 3 credits	
Summer Year 3	
ANAT 7999 (*Pre-Candidacy/REQUIRED)* Master Research in Anatomy 2-8 credits	
Autumn Year 4	**Spring Year 4**
ESQREM 7661 *(REQUIRED)* Instrument Construction 3 credits Any Additional Course(s) as Directed by Committee **ANAT 8999 (*Post-Candidacy/REQUIRED)*** Research in Anatomy 2 credits	**ANAT 8999 (*Post-Candidacy/REQUIRED)*** Research in Anatomy 2 credits Any Additional Course(s) as Directed by Committee
Summer Year 4	
ANAT 8999 (*Post-Candidacy/REQUIRED)* Research in Anatomy 2 credits	
Autumn Year 5 (as needed)	**Spring Year 5 (as needed)**
ANAT 8999 (*Post-Candidacy/REQUIRED)* Research in Anatomy 2 credits	**ANAT 8999 (*Post-Candidacy/REQUIRED)*** Research in Anatomy 2 credits

Appendix E: Graduate Teaching Associate Guidelines and General Information

I. Offer and Hiring Process

An application for a Graduate Teaching Associate (GTA) appointment in the Division of Anatomy for an upcoming academic year can be obtained on the division's website during the preceding spring semester. Be aware that applications for GTA appointments in the Division of Anatomy cannot be considered before admission to the graduate program.

In general, the department considers two major features when making GTA appointments: 1) academic promise as a student, which is judged on the basis of the admissions application materials, academic achievement in the program (if applicable), and progress towards degree in program (if applicable), and 2) appropriate professional background and skills required by a particular assignment, whether research, teaching, or service.

Graduate Associate positions of at least 50 percent FTE include a full-tuition and fee authorization covering all instructional and general fees, including nonresident fees, and the technology (learning fee. GA appointments at 25% FTE include one-half of instructional and general fees, including nonresident fees. Neither percentage includes COTA bus pass fee, student activity fee, recreational (RPAC) fee, Student Union fee, and other departmental or college specific fees. The university also subsidizes the cost of student health insurance for eligible individuals.

Appointments are made on either a semester, nine-month (2 semesters), or a twelve-month (3 semesters) basis.

Notification of GTA funding offers will be made from the Division of Anatomy once funding availability and division needs have been decided.

For more information related to GTAs, and GA positions in general, please see the Graduate Associates (Section 9) of The Ohio State University Graduate School Handbook (https://gradsch.osu.edu/handbook/9-graduate-associates).

II. Reappointment and Termination

Reappointments are made depending upon availability of funds, satisfactory performance, and successful academic progress. There are no guarantees of appointment beyond that specified in the student's appointment document.

GTA appointments may be terminated early for any of the following reasons: failure to fulfill requirements of the assignment, failure to fulfill Graduate School requirements for GTAs as stated in the Graduate School Handbook, poor academic performance, poor performance in fulfilling GTA duties, academic misconduct, irresponsible behavior (actions that put persons or properties at undue risk), insubordination to faculty or staff, sexual harassment or other violations of university codes of

conduct. This should not be considered a complete list of potential infractions, and other actions on the part of the GTA that are deemed grievously inappropriate by the Department Chair and the GSC may be grounds for termination of the appointment.

III. GTA Absences

Absences may be requested by GAs through an email to the student's supervisor and the director(s) of any course in which the student is a GTA. In the email request, the student should indicate the date(s) of the absence and who has offered to cover the GAs responsibilities in their absence. Absences are subject to approval by both the student's supervisor and the director(s) of any course in which the student is a GTA.

Additional guidelines for short-term absences and leaves of absence for graduate students appointed as GAs can be located here http://www.gradsch.ohio-state.edu/handbook/all#E-1.

IV. Safety in the Cadaver Lab

Working in an Anatomy Lab is a valuable educational experience, but is not without risk. Fortunately, good work practices and common sense can minimize the risk of injury and exposure to embalming fluid and biohazards. Examples include keeping containers closed when not directly working with specimens, not being sloppy, and consistently wearing nitrile gloves when handling cadavers or specimens. Everyone is asked to wash their hands and any exposed areas prior to leaving the lab.

All lab safety protocol and procedures are listed in each of the cadaver labs. Materials Safety Data Sheets (MSDS) are located in the morgue.

The Course Director/Supervisor is responsible for communicating lab policy to the teaching staff and students enrolled in the anatomy courses.

All GTAs are asked to sign the Human Anatomy Laboratory Safety Awareness Form, as well as the Statement of Commitment to Professionalism, at the time of appointment (see Appendix G).

Appendix F: Statement of Commitment to Professionalism

Statement of Commitment to Professionalism

This document addresses our expectations of your ethical commitment to yourself, our program, department, students, and colleagues. We recognize and endorse the development of personal and professional dispositions reflective of excellence in academic scholarship and teaching. We identified these characteristics as key:

responsibility - personal integrity - respect - maturity - diligence - cooperation
fairness - confidence - health - life balance - attentive - proactive

Professional dispositions are increasingly evident as measures of evaluation, growth and development towards excellence in academic scholarship and teaching. A number of professional behaviors are indicative of high performance including but not limited to:

- adherence to University Code of Student Conduct (https://studentlife.osu.edu/csc/)
- pursuing depth and breadth of knowledge in all Anatomical fields
- promptness in meeting all duties and obligations
- concerted efforts for consistent clear communication (verbal & nonverbal, written & oral)
- building collegiality and contributing to group tasks
- demonstration of knowledge and enthusiasm in working with a diverse range of students, staff, and faculty
- appreciation for a range of world views
- adopt appropriate dress code for specific environments (i.e. lecture, lab, etc.)
- accepting the obligation to exercise critical self discipline and judgment (on an off campus in the presence of student populations and colleagues.)

The Department of Biomedical Education and Anatomy has instituted an ongoing, formal assessment process by which faculty provide feedback to individuals in these areas of knowledge, skills, and behaviors.

The purpose of the *Statement of Commitment to Professionalism* is to identify the professional dispositions and behaviors for which you will be held accountable. As part of the application process to the Department of Biomedical Education and Anatomy you will read, adopt and sign the following statement.

"I have read the *Statement of Commitment to Professionalism* developed and adopted by the Department of Biomedical Education and Anatomy. I understand that these dispositions will be used to evaluate my performance in course work and related field experiences. I further understand that I am expected to demonstrate these dispositions to be accepted in the Department of Biomedical Education and Anatomy (MS & PhD programs) and the Graduate Teaching Associate position."

_____	_____
Print Name	Name.#
_____	_____
Signature	Date

Modified from Hope College 2011, and the American Association for Educators, www.aaeteachers.org

Department of Biomedical Education and Anatomy, The Ohio State University, 2016

Appendix G: Human Anatomy Laboratory Safety Awareness Form

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

Division of Anatomy
Body Donation Program
1645 Neil Avenue
Columbus, OH 43210
614-292-4831 Phone
614-292-7659 Fax
bodydonor@osumc.edu
http://go.osu.edu/bodydonation

Name.Number: _____ . _____

Human Anatomy Course Disclosure Form

The opportunity to review and dissect the human body is a privilege afforded to only a limited number of individuals. It carries with it an important responsibility to treat the person who has given his/her own body to advance your education and research with respect and dignity. Participation in our program requires that you maintain the utmost respect and dignity for our donors at all times within and outside the laboratory.

It is important that each student appreciates the opportunity afforded to them and observes the policies outlined in this disclosure form. These policies have been set up to promote respect for the donor, safety in all laboratory settings, and success for you in the laboratory and our programs. Failure to adhere to these rules may result in your expulsion from the Anatomy lab with a failing grade and further disciplinary sanctions in the sole discretion of the University.

Please read the following statements and initial the respective boxes to signify your compliance and comprehension of the rules.

	In order to have access to the human anatomical materials provided by the Body Donation Program, I verify that I have taken part in a Human Anatomy Laboratory Orientation session either in person or via e-module/video format.
	I understand that my access to the human anatomical materials is a privilege, and all donations have been made by consenting individuals and/or families to aid in anatomy education and research.
	I understand that it is my responsibility to adhere to the policies of the Body Donation Program and additional human anatomy laboratory policies outlined in the course syllabus or proposal form(s).
	I understand that failure to comply with the established rules and policies regarding human anatomical materials may result in my expulsion from the anatomy lab with a failing grade and may warrant further disciplinary sanctions in the University's sole discretion.
	I verify that to the best of my knowledge I do not know any Body Donation Program whole body donors who have died within the last two years. If a donor is known, please leave this box unchecked and record the donor's name here: _____
	I have read and understand the Body Donation Program laboratory rules on the reverse of this page and that compliance with all rules is mandatory.

THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

Division of Anatomy
Body Donation Program
1645 Neil Avenue
Columbus, OH 43210
614-292-4831 Phone
614-292-7659 Fax
bodydonor@osumc.edu
http://go.osu.edu/bodydonation

Body Donation Program Laboratory Rules

1. All students will be required to participate in the Body Donation Program orientation presentation either conducted in person by an Anatomy faculty member or via an e-module/video version prior to being allowed access to the donors.
2. No cell phones and/or cameras are allowed in the laboratory at any time. Recording or photographing the human anatomical material is strictly prohibited without the prior consent of The Ohio State University Body Donation Program Advisory Committee, including but not limited to any images considered for publication or other distribution.
3. Access to all online resources is strictly for enrolled students and these resources are for personal educational purposes only. Sharing, editing, or screen capturing any of the resources is forbidden.
4. Students shall track all human anatomical material by keeping the donor's number tag with the donor at all times. If the tag becomes disassociated from the donor, the course director should be contacted immediately. All tissue removed from the donor during dissection must be retained, identified with the donor's number, and tracked. To this end, bins will be provided for appropriate storage of any removed tissue, and these bins shall stay with the donor at all times.
5. Anatomical material must not be removed from the dissecting laboratory. All anatomical material should be appropriately wrapped and stored after study daily.
6. Unauthorized access to the lab is not permitted – i.e. dissection and/or study of the donors without the permission of the instructor is strictly forbidden. Additionally, all individuals, regardless of relationship to course participant or credentials, not enrolled in the course are not permitted to view the donors without permission by the instructor and fulfillment of all instructor stated requirements.
7. Disrespectful language, improper handling, or any other behavior deemed inappropriate in regards to the donor or dissection process will not be allowed or tolerated. Both conversational and written language relating to the donor and donor dissection by human anatomy students must be respectful and discrete at all times. Any information about the donor including the donor's demographical, social, or medical history is confidential and students are not allowed to disclose this information.
8. The use of the Internet in general, and social media sites in particular, including, but not limited to, Facebook, Instagram, Twitter, etc., as a venue for discussing any aspect of the donor or donor dissection is strictly prohibited.
9. Proper attire must be worn in all anatomy labs. This includes long pants or floor length skirts, full coverage t-shirts (short or long sleeve), and closed-toed shoes.
10. Different chemicals and sharp objects are used in these facilities and safety measures must be taken at all times.
11. The laboratory must remain clean. Laboratory tables, counters, and instrument should be thoroughly washed after each lab, and the floors should be cleaned of spills.
12. Non-compliance with the above policies may result in a student being immediately expelled from the course with a failing grade and referral for further disciplinary actions in the sole discretion of the University.

Full Name (Please Print)	Signature
Date Signed	Course(s)

This disclosure form is to be signed, dated, and returned to the course/lab instructor before they are given access to any facilities with human materials.

Appendix H: Application for Anatomy Graduate Student Travel Funds

Application for Anatomy Graduate Student Travel Funds

(Please Refer to the Anatomy Graduate Student Travel policy prior to completing)

Name: _____

Masters or PhD: _____

Year in Program: _____

Professional Meeting student is requesting to attend: _____

Location of Meeting: _____

Dates of Meeting:_____

Title of Proposed Abstract:_____

Included Authors on Proposed Abstract (Last names in the order they will appear):

_____

Reason student would like to travel to this meeting:

_____

_____

_____

Other travel funds will you be applying for: _____

_____

Signature of Graduate Student/Date

_____

Signature of Academic Advisor/Date

_____

Reviewed by Graduate Studies Committee (Attested to by Grad Studies Chair)/Date

_____

Recommend or Do Not Recommend

Appendix I: Quick Links for Graduate Students

Name of Link	Address
Academic Deadlines	http://www.gradsch.ohio-state.edu/handbook/all#A-1
Applying to Ohio State	http://www.gradsch.ohio-state.edu/programs-admissions/admissions
Dissertations & Theses	http://www.gradsch.ohio-state.edu/dissertations-and-theses.html
Division of Anatomy	http://medicine.osu.edu/bmea/anatomy/Pages/index.aspx
Funding	http://www.gradsch.ohio-state.edu/funding1.html
Graduate Associates	http://www.gradsch.ohio-state.edu/pursuing-your-degree/graduate-associates
Graduate Fellows	http://www.gradsch.ohio-state.edu/pursuing-your-degree/graduate-fellows
Graduate School Handbook	http://www.gradsch.ohio-state.edu/handbook
Graduate Programs/Degrees	http://www.gradsch.ohio-state.edu/programs-admissions/find-your-program
Graduate School Website	http://www.gradsch.ohio-state.edu/
Registration, Fees, & Graduation Deadlines	https://gradsch.osu.edu/calendar/graduation