

Procedures and Policies for Students Pursuing a Medical Sciences Degree

Ph.D. and M.S. (Thesis and Non-Thesis)

Fall 2022

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1. Introduction

This booklet summarizes the requirements for the completion of graduate degree requirements (Ph.D. and M.S.) in Medical Sciences through the School of Medicine Interdisciplinary Graduate Program. The Interdisciplinary Graduate Program offers specialization in the following areas:

Cancer, Cell, and Developmental Biology. Research related to the regulation of development, including processes dysregulated in cancer, such as control of cell cycle, cell survival and cell death; the role of innate and adaptive immunity in cancer and immunotherapy, molecular and cellular mechanisms of cancer initiation and pathogenesis; metabolic dysregulation in cancer, lymphatics in cancer progression; and design and application of mouse models of human cancer.

Infection, Immunity, and Inflammation. Research related to infection and subsequent host response; innate and adaptive immunity; inflammatory responses; genetic evaluation of virulence that affect colonization of tissues and systems; disease pathologies related to inflammation and immune dysfunction; e.g., diabetes, neurodegenerative disease; mesenchymal stem cells differentiation for immune function and wound healing.

Brain, Behavior, Psychiatric, and Neurological Disorders. Research related to normal neural development and neuro-developmental disorders, behavior, adaptation to injury and disease, psychiatric disorders.

Cardiovascular, Lymphatic and Metabolic Disease. Research related to the investigations of cardiac function, blood vessel circulation of organs; lymphatic vessel physiology, lymphatic control of inflammation and immune responses; underlying pathophysiology of obesity, diabetes, aging, heart disease, hypertension, lymphedema, inflammatory bowel disease, kidney and liver injury, eye conditions, and cancer.

Genetics, Genomics and Network Biology. Research using model organisms to study physiology in health and disease; quantitative, systems-based approaches to gain insight into the molecular, cellular and biochemical networks that underlie biological phenomena.

Biomedical Engineering and Regenerative Medicine. Research that explores the potential of somatic stem cells to ameliorate and cure a broad range of diseases.

More information about these Research Areas, and the School of Medicine faculty associated with each, can be accessed at the Research Area Focus link: https://medicine.tamu.edu/research/index.html

Overview of the Program

The Medical Sciences graduate program provides students with experimental research and/or formal coursework leading to the M.S. or Ph.D. degree. Students are expected to demonstrate professional level knowledge and research skills as demonstrated through their resulting work. The curriculum provides a broad-based foundation for students in the Medical Sciences graduate program through coursework. Early on students will identify an Advisor and then assemble an Advisory Committee. Subsequently, students complete their formal coursework, pass a preliminary examination (Ph.D.), conduct an independent research project (Ph.D. and M.S. Thesis Option), and prepare a thesis (M.S. Thesis Option), or dissertation (Ph.D.), and successfully pass a Final Examination (all programs). It is expected that research worthy of a Medical Sciences degree will constitute a significant contribution to the field in general and result in peer-reviewed scholarly publication(s). Evaluation of the quality and quantity of the student's scholarly works will be the responsibility of the student's Advisory Committee. Details and specific stages are discussed in the following sections, and more detail can be found in the Graduate Catalog available online through the Graduate and Professional School (GPS) https://grad.tamu.edu/.

Graduate Student Organization (GSO)

The goal of the Texas A&M School of Medicine Graduate Student Organization (GSO) https://medicine.tamu.edu/academics/graduate-studies/gso.html is to encourage student participation in the affairs of the School of Medicine, Life Sciences Graduate programs of Texas A&M University, and the Texas A&M University system. The GSO strives to promote communication and community between the administration, the student bodies, and TAMU system schools. It also seeks to enhance the quality and scope of our research education, professional development, and intellectual advancement. Membership to the GSO is automatic upon admission to the SOM Medical Sciences Graduate Program. Officers are elected annually by the student body.

In order to progress in our mission, the GSO officer team serves as the voice of the graduate student body of the School of Medicine and interacts with faculty and administrative representatives of the HSC and TAMU to optimize participation in the events and programs held throughout the year. The core officer team consists of an annually elected President, Vice President, Treasurer, Secretary, Community Outreach Chair, and Social/Media Chair. The GSO has officer representatives on committees such as the Graduate Instructional Committee (GIC), Graduate Program Executive Committee (GPEC), Graduate Admissions/Recruitment Committee (GAC), Diversity and Inclusion Committee (D&I), Graduate & Professional Student Government (GPSG), Student Governing Body (SGB), Anti-Racism Taskforce (ART), Learning Environment Enrichment Committee (LEEC), Gender Bias Taskforce, and others. We believe our involvement in these committees is valuable to the progressive improvement of our school and program and we are eager to provide service to these organizations.

In addition to serving on administrative committees, the Bryan/College Station and Houston campus GSO officers host an annual symposium showcasing graduate student and post-doctoral research at the School of Medicine, historically taking place each spring semester. The GSO is also charged with coordinating the Graduate Student Roundtable seminars, organizing the bi-annual Robert and Annabelle Bruce Travel Award, and hosting a variety of social events throughout the year.

Robert and Annabelle Bruce Travel Award

The Robert and Annabelle Bruce Travel Award has been established in the spirit of both recognizing outstanding work by School of Medicine graduate students and contributing to their professional development. The purpose of this travel award is to promote the attendance of the School of Medicine graduate students at scientific meetings by providing them with financial aid. Typically, awards will be distributed each Fall and Spring semester. Awards may only be used for expenses related to travel to the conference, including accommodations, transportation, registration/abstract fees, or poster printing. Selection is based on scientific merit, as well as participation in GSO sponsored career development events (e.g. attendance at the Graduate Student Roundtable meetings – see below). Funds may not be used for expenses unrelated to travel or to pay society dues. More information regarding the eligibility and grading rubric can be found online.

Requirements for Ph.D. Degree

2. Yearly Steps to Fulfill Doctoral Degree Requirements

Year 1 – Fall Semester

- Meet with MSCI Graduate Program Advisory Committee during the first semester for guidance on research laboratory placement
- MSCI 601 Advanced Cell Biology (5 credits)
- MPHY 624 Biostatistics (2 credits; or equivalent biostatistics course)
- MSCI 609 Responsible Conduct of Research (1 credit)
- MSCI 691 Research (1 credit for 3 lab rotations; Pass/Fail)
- Complete 3 five-week lab rotations by the end of the semester. Lab rotation forms must be submitted before rotations are initiated.

Year 1 – Spring Semester

- Choose Research Advisor Submit <u>Laboratory Acceptance letter</u> to the Office of Graduate Studies (OGS).
- Consider submitting a Laboratory Compact with your Research Advisor
- Elective coursework
- MSCI 691 Research (if needed to reach the required 9 credits)
- Start Research Project

Year 1 – Summer Semester

- MSCI 685 Writing a Pre-Doctoral Fellowship Application (2 credits)
- MSCI 681 Seminar (1 credit; attendance required)
- MSCI 691 Research (if needed to reach the required 6 credits)
- Form Dissertation Advisory Committee
- Create an Individual Development Plan (IDP)

Year 2 – Fall Semester

- Elective Coursework
- MSCI 691 Research (if needed to reach the required 9 credits)
- Finalize Dissertation Advisory Committee Members
- Preliminary Meeting with Dissertation Advisory Committee
- File Degree Plan

Year 2 – Spring Semester

- Elective Coursework
- MSCI 691 Research (if needed to reach the required 9 credits)
- Meet with Dissertation Advisory Committee
- Plan, schedule, and complete the <u>Preliminary Examination</u> (<u>hard deadline</u> in Fall of Year
 3)

Year 2 – Summer Semester

- Elective Coursework
- MSCI 691 Research (if needed to reach the required 6 credits)

- MSCI 681 Seminar (1 credit; present works in progress)
- Plan, schedule, and complete the <u>Preliminary Examination</u> (<u>hard deadline</u> in Fall of Year
 3)
- If eligible, submit a predoctoral fellowship proposal to the NIH, NSF or similar entities, including private foundations (strongly encouraged).

Year 3 - Fall Semester

- Elective Coursework (if not already completed)
- MSCI 691 Research
- Preliminary Examination Preliminary Examinations are encouraged to be taken in the Spring or Summer of Year 2 but must be completed by the end of this semester
- File Research <u>Proposal</u> to the Graduate and Professional School by the end of the semester
- Admission to Candidacy following successful passing of the Preliminary Examination

<u>Year 3 – Spring Semester</u>

- Elective Coursework (if necessary)
- MSCI 691 Research
- Meet with Dissertation Advisory Committee

<u>Year 3 – Summer Semester</u>

- Elective Coursework (if necessary)
- MSCI 691 Research
- MSCI 681 Seminar (1 credit; attendance required)

Year 4/5 – Fall Semester

- Elective Coursework (if necessary)
- MSCI 691 Research

Year 4/5 – Spring Semester

- Elective Coursework (if necessary)
- MSCI 691 Research
- Meet with Dissertation Advisory Committee

Year 4/5 – Summer Semester

- Elective Coursework (if necessary)
- MSCI 691 Research

MSCI 681 Seminar (1 credit; present works in progress year 4 only, year 5 attendance required)

Final Defense and Final Examination: Must submit request to the Graduate and Professional School no less than 10 days prior to scheduled examination/defense date. It is expected that the candidate will have at least one first-author, peer-reviewed research paper published or accepted for publication prior to scheduling their defense.

Academic Requirements

Successful completion of the Ph.D. degree requires 96 credit hours beyond a baccalaureate degree

or 64 credit hours beyond a Master's or professional degree. For the Medical Sciences Ph.D. program, 8 graded credit hours are taken in the first semester of training. Subsequently, an additional 18 graded credit hours will be required for a total of 26 graded credit hours to graduate. This represents the minimal amount required for a Ph.D. MSCI graduate. Some latitude is possible, however, between formal course hours and research hours. Consult the Assistant Dean of Graduate Studies for specific cases. Full-time graduate students supported by Graduate Assistantships must enroll in a minimum of 9 credit hours for Fall and Spring semesters and 6 credit hours for the Summer semester (either 6 hours for the 10-week session or a combination of hours for both 5-week sessions). Students are required to remain in good academic standing with a minimum average GPA of 3.0. Failure to maintain this standard will result in the student being placed on academic probation, potential loss of stipend, and possible dismissal. In addition to the formal graded coursework, students are required to maintain adequate progress in their research endeavors and to participate in departmental functions such as seminars, journal clubs, lab meetings, present at national meetings and conferences, and other professional activities.

Coursework Requirements

BCS and IBT Students: MSCI 601 Advanced Cell Biology (5 credits), MPHY 624 Biostatistics (2 credits, or equivalent statistics course), MSCI 609 Responsible Conduct of Research (1 credit), and MSCI 691 Research (1 credit, Pass/Fail for 3 five-week lab rotations). To be taken in the Fall semester of the 1st year.

• IBT students ONLY:

- O <u>IBT students ONLY</u> years 2-4 are required to take IBST 681 Seminar Medical Sciences, which is held in the Fall & Spring Semesters. Students are required to report on 4 seminars per month during the semester. Once students complete/pass the Preliminary Exam, they will only be required to report on 1 seminar per month during the Spring/Fall semesters.
- IBT students ONLY years 2-4 are required to take IBST 605 "Research in Progress (RiP)," which
 is held every Fall Semester. Students will attend weekly and present their research once per
 semester.
- IBT students ONLY years 2-4 are required to take IBST 689 (permanent course number TBD)
 "Journal Club," which is held every Spring Semester.
- o <u>IBT students **ONLY**</u> (1st year students only) are required to take IBST 689 (permanent course number TBD) "Grant Writing," which is held in Summer Semester.

Graduate Student Roundtable

The goal of the Graduate Student Roundtable is to allow graduate students to meet with each other and the Assistant Dean of Graduate Studies in an informal format to discuss the program and integrate professional development through career talks and student resource seminars. This seminar series focuses on exploring career options after graduate school and provides opportunities to network with professionals within those fields of interest. The Graduate Student Roundtable meets the last Friday of each month at noon and lunch will be provided. The students will have the chance to suggest topics before each roundtable, and the GSO officer team will coordinate with the Office of Graduate Studies to host speakers, either in-person or virtually. A portion of time at the beginning of each roundtable is devoted to announcements, questions, suggestions, and discussion from the students. Participation from all trainees (graduate students and post-docs) is highly encouraged. Attendance at the Graduate Student Roundtables counts towards the participation component of the Robert and Annabelle Bruce Travel Award and will be

evaluated as part of the award application.

The goal is to enhance dialogue between students and the Graduate Program leadership as issues arise. An additional goal is to empower students to provide input into the Graduate Program to meet their career needs.

Residence Requirement for Degrees Awarded by the Texas A&M Health Science Center

A major purpose of the residence requirement for graduate study is to ensure the advantages of the University environment. These activities include, among others, accessibility to libraries, laboratory experiences, seminars, and colloquia presented by faculty and other professionals, as well as cultural events. The requirement also provides the faculty the opportunity to properly evaluate the student and their development, to guide and direct studies, and to determine competency. The majority of credits toward a graduate or post-baccalaureate professional degree must be earned through Texas A&M University. The Assistant Dean of Graduate Studies may consider exceptions to this policy under special circumstances. Please see the student rules in the **Graduate Catalog** for details.

Progress Towards the Ph.D. Degree

Year 1

Role of the Advisory Committee/Faculty Advisor

Each incoming student will have a School of Medicine Faculty Advisor who will aid the student in navigating issues encountered in the Fall semester, focusing mostly on helping the student select lab rotations and a research laboratory to conduct their dissertation research. Questions about policies, procedures, and program requirements should be directed to the School of Medicine Assistant Dean of Graduate Studies. First semester courses are set for incoming students and are not discipline-specific in scope. Once a Research Advisor is identified, academic advisement (i.e., course selection) becomes the responsibility of the Research Advisor.

Individual Development Plan (IDP)

The IDP is a tool that allows you to identify and map your career goals. The IDP will assist you with:

- Identifying your skills, interests and values
- Developing an IDP customized to your needs
- Identifying, clarifying, and committing to goals based on your priorities and professional goals
- Creating and developing strategies for goal achievement
- Tracking progress toward your goals
- Understanding, evaluating, and strengthening your technical and non-technical competencies
- Practicing confidently discussing strategies for aligning expectations with those of your supervisor
- Making the most out of a recent promotion, job opportunity, or other developmental prospect
- Analyzing alternatives and solutions

Every Summer, you are required to report to the Office of Graduate Studies a report of your updated IDP, and discuss it with the Assistant Dean of Graduate Studies in a one-to-one meeting.

First Year Curriculum

The first year, particularly the first semester, is directed primarily towards meeting the core course requirements of the Medical Sciences PhD Degree Program. For the Fall semester these are MSCI 601 (5 credits), MPHY 624 (2 credits, or equivalent), MSCI 609 (1 credit), and MSCI 691 (1 credit, Pass/Fail). Evidence of a strong Biostatistics background may grant an exemption from the Biostatistics requirement

as determined by the Assistant Dean of Graduate Studies. Once a student joins a research laboratory in the Spring semester, the Research Advisor will help to develop a curriculum that fits the needs of their intended research project.

Laboratory Rotations - Choosing a Research Advisor

Initial Process

The COM MSCI Graduate Program has three, 5-week rotations for first-year graduate students. Incoming first-year graduate students will complete all three rotations by the end of the first semester. All new graduate students will have a current graduate student and faculty advisor to assist in rotation and permanent laboratory selection. The GPEC Advisory Subcommittee members will advise the first-year graduate students until a permanent laboratory is selected.

Limits on Number of Rotation Students

The preferred distribution of rotations for graduate faculty members is a single graduate student per rotation. That is, the maximum number of rotation students per semester is three per laboratory. In some instances, there may be situations where faculty may not be able to take a student in an existing rotation period and may want to take two students during a subsequent rotation time frame. The ability to mentor more than one student in any one rotation period requires approval from the GPEC Advisory Subcommittee. No faculty can mentor more than three students per semester.

Selection of Laboratory

Students are expected to identify a laboratory to join after the three rotations are completed. However, in some instances an additional rotation may be needed. If this is needed, a fourth rotation request will be directed to the GPEC Advisory Subcommittee for consideration. If approved, this rotation can be arranged at the start of the second semester (or sooner) as agreed upon by the faculty and graduate student.

Students are encouraged to contact faculty members individually to discuss specific projects and research opportunities in each lab. Rotation Forms should be completed and returned to the Graduate Office after deciding the labs in which the student will rotate.

During rotations, it is the student's responsibility to arrange sufficient time to participate fully in lab activities. Typically, this will include discussions with the faculty member, contribution to ongoing research projects, attendance at lab meetings, and acquisition of specific technical skills specified by the faculty member. When choosing faculty with whom to rotate, it is important to ask the individual faculty members if they are planning to take students that year and whether he or she has available funding. Faculty members are not obligated to take students into their programs and may be unable to do so due to lack of space, funding, or time constraints. It is the student's responsibility to initiate discussions with faculty members about the availability of research positions in laboratories.

Finalizing Lab Choice

A <u>lab acceptance memo</u> should be submitted from the Research Advisor to the Graduate Office through the Department/Academic Unit Head stating their funding availability and willingness to accept this student. This agreement will be completed and to the Assistant Dean of Graduate Studies.

Dissertation Advisory Committee Structure

Each student is required to form a Dissertation Advisory Committee that will oversee the student's progress toward the Ph.D. degree. Members of the Dissertation Advisory Committee will be determined by the student in consultation with the Research Advisor. The Dissertation Advisory Committee should be formed

by the end of the Summer semester of the 1st year but no later than the end of the first semester of the 2nd year. After it is set up, the Dissertation Advisory Committee is required to meet with the student at least once annually to review the student's progress https://medicine.tamu.edu/academics/graduate-studies/docs/2021-phd-student-committee-meeting-form.pdf). Failure to do so may result in the student being blocked from registering. It is highly recommended that the student and Dissertation Advisory Committee meet each Fall and Spring semester to assess progress. The committee will consist of no fewer than 4 faculty members, one of which will be the student's Research Advisor. The Research Advisor must be a School of Medicine faculty member although a co-Chair from another TAMU School is permitted and encouraged. The primary location for COM graduate student research will be within a School of Medicine Graduate Faculty laboratory. The Graduate Faculty member will serve as the Research Advisor and Chair. At least one of the committee members should be from a department other than the home department of the student and Research Advisor. One committee member from outside the School of Medicine is permitted and encouraged. The composition of the committee should be in accordance with OGAPS guidelines. guidelines.

If a faculty member from outside TAMU is requested, the student and faculty mentor will need to provide a memorandum that outlines the rationale and justification for their inclusion as well as the CV of the proposed outside member. The packet provided will be reviewed by the GPEC and will require 2/3 majority vote for approval. The Chair of the GPEC will then provide these same materials to the Graduate Instructional Committee (GIC) for their discussion and approval. If approved, the packet will then be provided to the School of Medicine Office of Graduate Studies for approval by the Assistant Dean of Graduate Studies and then on to TAMU Graduate & Professional School for final approval and implementation.

The committee members' signatures on the Degree Plan indicate their willingness to accept the responsibility for guiding and directing the entire academic program of the student and for initiating all academic actions concerning the student. Individual committee members may be replaced by petition for valid reasons on a case-by-case basis. The student, with endorsement of the chair of the committee, who usually has immediate supervision of the student's research and dissertation or record of study, will contact the committee and call annual meetings. The duties of the committee include responsibility for the proposed Degree Plan, the Research Proposal, the Preliminary Examination, the Dissertation or record of study, and the Final Examination. In addition, the committee, both as a group and as individual members, is responsible for counseling the student on academic matters, and, in the case of academic deficiency, initiating recommendations to the TAMU Graduate & Professional School.

Mentor: Mentee Relationship

With the intent to establish and maintain a solid research mentee:mentor relationship, the MSCI Graduate Program endorses the implementation of an agreement between mentee and mentor. This agreement between the faculty mentor and graduate student mentee is designed to define clear expectations and guidelines for graduate training. The utility of these documents is that they **explicitly** state what is expected from **BOTH** the student mentee and the faculty mentor. Having expectations known from the outset is advantageous from both sides and should foster a stronger training program that will better position this program for training grant opportunities. It is important that the agreement can be modified by both mentee and mentor to fit the training regimen appropriate for each student. **These agreements work best if both student and faculty agree with what is stated.**

Note that the document used here is edited from ones structured by the Center for the Improvement of Mentored Experiences in Research (CIMER) through the Wisconsin Center for Educational Research at the Univ. of Wisconsin. $_{11}$

The document is provided in <u>**Tips for a Productive Mentor-</u>**"Tips for a Productive Mentor:Mentee Relationship"</u>

Year 2

Degree Plan

Students are required to file a <u>Degree Plan</u> with the Graduate and Professional School. The Degree Plan lists the courses, including research hours, which the student will complete as part of the Ph.D. degree. The total hours listed for a Ph.D. degree should equal 96 unless the student has a M.S. or professional degree in which case the hours listed should total 64. This proposed Degree Plan will be submitted through the online Document Processing Submission System located at <u>ogsdpss.tamu.edu</u>. Students must consult with their Research Advisor about the content of the proposed Degree Plan prior to initiating the electronic submission. The Degree Plan will be electronically routed for approval by the Program Coordinator, Dissertation Advisory Committee and the Assistant Dean of Graduate Studies, prior to submission to the Graduate and Professional School. The Degree Plan must include **26 credit hours of graded coursework**, with the remainder being research credit hours. In reviewing the coursework necessary for the degree, no more than 4 distance education courses can be taken. The <u>Degree Plan</u> should be filed during the second year of study, Fall Semester. Any changes in the Degree Plan require approval of the Program Coordinator, Dissertation Advisory Committee and the Assistant Dean of Graduate Studies, and must be petitioned through OGAPS Document Processing Submission System accessed via <u>ogsdpss.tamu.edu</u>.

Preliminary Examination

Students should *begin* to plan, schedule, and possibly complete the Preliminary Examination along with their Dissertation Advisory Committee. The specific format of the Preliminary Examination is described below. IT IS SUGGESTED THAT THE PRELIMINARY EXAM BE COMPLETED IN THE SPRING SEMESTER OF THE SECOND YEAR OR THE SUMMER BETWEEN THE SECOND AND THIRD YEARS. THE PRELIMINARY EXAM <u>MUST</u> BE COMPLETED BEFORE THE END OF THE FALL SEMESTER OF THE THIRD YEAR.

Preliminary Examinations are to ensure that students have a strong general foundation in the basic medical sciences and sufficient understanding of their specific research area to proceed with their dissertation work. The Preliminary Examination will have both a written and oral component.

The current *minimal recommendation* for the Preliminary Examination format is the following:

- 1. The Written component will require the production of an NIH F31 Pre-Doctoral Fellowship proposal (1 page Specific Aims and 6 pages of Research Strategy) related to the student's research and
- 2. An Oral Examination defending the grant application to be done within 2 weeks after submission of the Written component to the Dissertation Advisory Committee.

For the Oral Exam, <u>students should prepare <30 slides</u> to guide the Dissertation Advisory Committee through the proposed Aims.

Other options:

The Dissertation Advisory Committee can recommend <u>additional</u> parameters for the Preliminary Exam

at their discretion. Please note that these options do **not** replace the Research Proposal requirement.

Deviations from the NIH F31 format will need to be justified by the student's Dissertation Advisory Committee and approved by a majority vote of the GPEC and Assistant Dean of Graduate Studies.

<u>PLEASE NOTE</u> that the Written component of the Preliminary Examination <u>should</u> serve as the Research Proposal that will be filed with the Graduate and Professional School (see below for details).

Prior to scheduling the Preliminary Examination with the other Dissertation Advisory Committee members, the committee chair will review with the student eligibility criteria, using the Preliminary Examination (Checklist) to ensure the student is ready for the Preliminary Examination. The following list of eligibility requirements applies:

- An approved Degree Plan was on file with the **Graduate and Professional School** at least 90 days prior to the first Written portion of the Preliminary Examination.
- Student's cumulative GPA is at least 3.00.
- Student's Degree Plan GPA is at least 3.00.
- All English language proficiency requirements have been satisfied.
- All committee members have received the Written component and agreed to attend the Oral Exam or have found a substitute. Only one substitution is allowed and it cannot be for the committee chair.
- At the end of the semester in which the exam is given, there are no more than 6 hours of coursework remaining on the Degree Plan (except 681, 684, 690, 691, and 692).
- The time span from when the Dissertation Advisory Committee received the Written component to the Oral Exam is **no more than 2 weeks.**

The chair of the Dissertation Advisory Committee will promptly report the results of the Preliminary Examination to the School of Medicine Office of Graduate Studies, using the Report of the Preliminary Examination form. The forms will be complete online through DocuSign and be approved by each Dissertation Advisory Committee member and the Assistant Dean of Graduate Studies. These forms needs to be submitted by the Assistant Dean of Graduate Studies to the Office of Graduate and Professional Studies within 10 working days of the Preliminary Examination.

After passing the required Preliminary Examination for the Ph.D. degree, the student must complete the Final Examination for the degree within 4 calendar years. Otherwise, the student will be required to repeat the Preliminary Examination.

Preliminary Examination

If not yet completed, the Preliminary Examination **MUST** be done <u>before</u> the end of the Fall semester of the third year.

Research Proposal

As a part of the Preliminary Examination, a written component based on the student's research in the form of an NIH F31 application is submitted to the Dissertation Advisory Committee and assessed. This document can and should serve as the **Research Proposal**.

The Research Proposal should include relevant background information and sufficient description of the experimental approaches so that the merit and feasibility of the project can be evaluated. The proposal must be approved by the Dissertation Advisory Committee and the Assistant Dean of Graduate Studies, after approval of the Dissertation Advisory Committee. The completed proposal should be approved and submitted through DocuSign to the Graduate and Professional School by the School of Medicine Office of Graduate Studies, along with the Proposal Approval Form, no later than the end of the Fall semester of the 3rd year consistent with the completion of the Preliminary Examination.

The Research Proposal is a description of proposed research and defines the scientific problem to be studied for the dissertation research. There is no requirement or expectation that a Research Proposal will contain significant preliminary data.

Students should refer to examples of successful F31 Research Plans provided by the NIH: https://www.niaid.nih.gov/grants-contracts/three-new-f31-sample-applications, as well as guidance for writing the Research Plan: https://www.niaid.nih.gov/grants-contracts/write-research-plan.

The final copy of the proposal should be at most 7 pages, single-spaced (not including References). Proposals should be organized according to NIH F31 Grant Guidelines and include the following:

1. Project title

2. Specific Aims (one page)

The Specific Aims answer the question "What do you intend to do?". The proposal should state the broad, long-term objectives and list concisely and realistically what the specific research described in this application is intended to accomplish and the hypotheses to be tested.

3. Research Strategy (6 pages)

The Research Strategy is a description of the rationale of the research project and the experiments you propose to accomplish each. It has the following main sections:

- a) <u>Significance</u> <u>should answer the questions "What has already been done?" and "Why is the work important?"</u> (e.g. for human health, or for advancing your field)? How is your research new or unique? Do you have a novel hypothesis, or what gaps in knowledge will your project address? Does your research challenge the status quo or establish new paradigms? Do you use novel research/experimental designs or new models?
- b) <u>Approach</u> Explain how you will do the work. There are many ways to organize this section (see examples). Students may use figures and diagrams to explain the background material or how certain kinds of experiments will be performed. Clearly outline the experimental design and the procedures to be used to accomplish the Specific Aims of the project. **Do not**

provide detailed descriptions of protocols used. Rather, you should focus on how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the Aims. Provide a tentative sequence or timetable for the investigation. The inclusion of Preliminary Data is encouraged to support feasibility, but it is not required.

4. Literature Cited

Use references to support statements or concepts. References should be listed at the end of the proposal. Each citation must include the names of all authors, the title of the article or book, the name and volume number of the journal, page numbers, and year of publication. The list should be relevant and current; it need not be exhaustive. Students are expected to have read and understood all, or the pertinent parts, of each reference listed. References may be organized in any consistent fashion; for example, list in order of appearance and number consecutively in the text, or cite the authors in the text and list the references alphabetically by author. *This section is not included in the 7-page limit.*

Seminars and Journal Club Participation

All students are required to attend appropriate seminars and Journal Clubs. This includes presentation of literature and research in these forums. Each student should refer to their Research Advisor for expectations concerning seminar presentation attendance and participation in departmental journal clubs.

All students are also required to attend a minimum of 1 seminar presented by the School of Medicine CST*R Grand Rounds and by the Diversity and Inclusion Committee (D&I) each semester. It is the responsibility of the student to ensure their attendance to these seminars is recorded for eligibility for Travel Awards.

Each Summer semester students will register for MSCI 681 Seminar for 1 credit and will present their research goals (Year 2) and research progress (Year 4). The student will get MSCI 681 Seminar 1 credit for attending >80% of the seminar series in the summer in Years 1, 3 and 5. MSCI 681 Seminar will be graded as S/U.

Admission to Candidacy

To be admitted to candidacy for a Ph.D. degree, a student must have: (1) **completed all formal coursework on the Degree Plan** with the exception of any remaining 681, 684, 690, and 691; (2) a 3.0 Graduate GPA and a Degree Plan **GPA of at least 3.0** with no more than two courses with a grade of C in any course on the Degree Plan; (3) **passed the Preliminary Examination** (written and oral portions); (4) submitted an approved **Research Proposal**; and (5) met the **residence requirements**. Students will receive a \$1000/yr stipend increase starting the date of their admission to candidacy. It is the student's responsibility to initiate the stipend increase with their Research Advisor. The Final Examination will not be authorized for any Ph.D. student who has not been admitted to candidacy.

Dissertation Research

The dissertation work must be the original research performed by the candidate. With the council of the Research Advisor and the student's Dissertation Advisory Committee, the candidate will work on the research project until such time as the scholarly merit has been met. This will vary depending upon the research topic, but it is the student's responsibility to present and discuss the research with the Research Advisor and the Dissertation Advisory Committee, both formally and informally, so there is an assessment of progress. It is the responsibility of the Research Advisor and Dissertation Advisory Committee to

determine when the research goals are met and to proceed with writing the dissertation.

Publications

In addition to the dissertation, each student is required to publish a single, first-authored paper at a minimum. The manuscript must be on their original research and cannot be in the form of a review. Further guidance on this requirement is provided in the **Appendix**. Please refer to this section for additional details.

Year 4 to Completion

Final Examination

Candidates for the Ph.D. degree must pass a Final Examination administered by their Dissertation Advisory Committee. The examination consists of 2 parts: 1) a public seminar where the student presents their research findings to an audience of faculty, students, and staff, and 2) an oral defense of the dissertation conducted by the Dissertation Advisory Committee in a private setting. As the Final Examination represents a culmination of the student's graduate program, all faculty and students are encouraged to attend the public seminar. The **Request and Announcement of the Final Examination** must be submitted to the Graduate and Professional School a minimum of 10 working days in advance of the scheduled date. Examinations/Defenses that are not completed and reported as satisfactory to the Graduate and Professional School within 10 working days of the scheduled examination/defense date will be recorded as failures. The Graduate and Professional School must be notified in writing of any cancellation.

The Dissertation Advisory Committee will submit its recommendations on the appropriate Report of the Final Examination for Doctoral Candidates form to the Graduate and Professional School regarding acceptability of the candidate for the Ph.D. degree. A student must be registered in the University in the semester or summer term in which the Final Examination is taken. The Dissertation Advisory Committee will also submit to the Medical Sciences Graduate Program Office the **Graduate Student Annual Review Form.**

Dissertation

The dissertation is a scholarly document which presents the research findings of the student in the context of the field of study. The format of the document is directed by the Graduate and Professional School and guidelines for the preparation of the document and the steps for completing the process can be found on the <u>OGAPS website</u> (see <u>Thesis and Dissertation Requirements and Information</u>).

After successful defense and approval by the student's Dissertation Advisory Committee and the Assistant Dean of Graduate Studies, a student must submit his/her dissertation in <u>electronic format</u> as a single PDF file. The PDF file must be uploaded to the website, <u>etd.tamu.edu</u>. Additionally, a signed approval form must be completed electronically and submitted to the Office of Graduate and Professional Studies. Both the PDF file and the signed approval form are required.

Exam results must be submitted with original signatures of only the Dissertation Advisory Committee members approved by the Graduate and Professional School. If an approved committee member substitution (1 only) has been made, his/her signature must also be submitted to the Graduate and Professional School. The student should consult the academic calendar for the deadlines to schedule a defense for that semester and for the last day that a student can defend to qualify for graduation that semester.

Conflict Resolution

Faculty engaged with mentoring students are expected to model respectful behavior to faculty colleagues, students and staff. Faculty are expected to prioritize trainee development, and to mentor graduate students in subject-specific research practice and ethics and prepare trainees for professional life.

Graduate trainees are expected to act as responsible members of the academic community and to treat faculty mentors, graduate colleagues, and other university staff with respect. Graduate students assume primary responsibility for their progress through the training program, including meeting milestones in a timely manner. Students are expected to be committed to scholarly and academic excellence.

The Graduate Program recognizes that conflicts will occasionally arise between graduate student trainees and their faculty mentors/mentors. It is expected that conflicts will be resolved by open communication and in a mutually respectful manner, without retaliation within the framework provided by TAMU rules against retaliation (https://rules-saps.tamu.edu/PDFs/08.01.01.M1.01.pdf) and discrimination (https://orec.tamu.edu/wp-content/uploads/2019/06/NoticeOfNonDiscrimination.pdf).

In the event conflict does arise,

- 1. but is not addressed by an existing University or program policy, the student and faculty member should attempt to work out the issue. Each party should document when meeting(s) occur and briefly summarize how attempt(s) to create a mutually satisfactory resolution were approached.
- 2. If the parties cannot reach a mutually satisfactory resolution, the home department should attempt to facilitate the resolution. For example, the department chair, dissertation committee, or another faculty member may serve as mediators.

If resolution is not achieved within the home department, the matter may be brought to the Director of graduate studies and/or to the Assistant Dean of graduate studies. If the director of graduate studies has a conflict or a potential conflict of interest, the Assistant Dean for graduate studies will appoint a designee to mediate that conflict. If the matter is brought to the director or assistant dean of the graduate program, all written materials must be provided, including documentation of all prior attempts at conflict resolution. These documents must be submitted by email. The Graduate School's Director and Assistant Dean will have the final authority in determining the steps to be taken to promote the resolution of the conflict.

Requirements for M.S. Degree

The School of Medicine has established a Master of Science (M.S.) Degree in Medical Sciences. The curriculum for the M.S. Medical Sciences degree is designed to develop new understanding through research and originality. Students in the School of Medicine M.S. in Medical Sciences degree program should not expect financial support through the Research Office. The progression to the M.S. degree is well defined in the <u>Graduate Catalog</u> on <u>the Graduate and Professional School</u> website, and are summarized here. There are two options for the M.S. in Medical Sciences degree: Thesis and Non-Thesis.

M.S. Thesis Option: A minimum of 32 semester credit hours of approved courses and research is required for the Thesis Option M.S. degree. Students are required to take **14 graded credit hours** toward their degree. The thesis will need to be filed with the Advisory Committee and the Graduate and Professional School and defense of the thesis will serve as the Final Examination.

M.S. Non-Thesis Option: A minimum of 36 semester credit hours of approved coursework is required for the Non-Thesis Option M.S. degree, and no research hours (MSCI 691) can be counted. Coursework will be chosen in support of the fields of the student's interest. A portfolio of classes taken, what the student learned, and an exit interview meeting with the Advisory Committee will serve as the Final Examination.

Degree Plan

The student's Advisory Committee, in consultation with the student, will develop the proposed Degree Plan. The Degree Plan must be completed and filed with the Graduate and Professional School by the end of the first year, and no later than 90 days prior to the date of the Final Examination. A student should submit the Degree Plan using the online Document Processing Submission System located on the website ogsdpss.tamu.edu. A student submitting a proposed Degree Plan for a M.S. in Medical Sciences degree should designate on the official Degree Plan the appropriate program option. Additional coursework may be added to the approved Degree Plan by petition if it is deemed necessary by the Advisory Committee to correct deficiencies in the student's academic preparation. No changes can be made to the Degree Plan once the student's Request for Final Examination or Request for Final Examination Exemption is approved by the Graduate and Professional School.

Advisory Committee

The student's Advisory Committee for the M.S. in Medical Sciences degree will consist of **no fewer than 3** members of the Graduate Faculty, representative of the student's fields of study and/or research. The chair or the co-chair of the Advisory Committee must be a graduate faculty from the School of Medicine, and at least 1 or more of the members must have an appointment to a department other than the student's Advisory Chair department. The Medical Science Graduate Program Executive Committee will select the remainder of the Advisory Committee. Only Graduate Faculty members located on Texas A&M University campuses may serve as chair of a student's Advisory Committee. Other Graduate Faculty members located off campus may serve as a member or co-chair (but not chair) with a member as the chair. The student in agreement with the chair of the Advisory Committee, has the responsibility for calling required meetings of the committee and for calling meetings at any other time considered desirable.

For more information on the M.S. in Medical Sciences Program, please refer to the **Graduate Student Catalog**.

Graduate Student Excellence Awards

The School of Medicine has established 2 awards to recognize the outstanding achievements of our graduate students in research and service to the school. Nominations are solicited each Spring semester by the School of Medicine Office of Graduate Studies and the selection process is carried out by the Graduate Program Executive Committee. All Excellence awards are announced at the School of Medicine Graduate Research Symposium and commemorated with a plaque and monetary award.

Research Excellence Award:

The Graduate Research Excellence Award is given each year to recognize exceptional research achievement by a graduating Ph.D. or M.D./Ph.D. student. The recipients will have demonstrated independence, creativity, and significant productivity in their graduate research with a high potential for success in a future research career. In addition, recipients will have demonstrated high standards in professionalism, scientific ethics, and contributions to the graduate program. The award was created in 2005.

Eligibility:

- 1) Must be a School of Medicine graduate student receiving a Ph.D. or an M.D./Ph.D. in Medical Sciences.
- 2) Must have completed all requirements for the degree during one of the semesters in the 12 months prior to spring commencement (summer, fall, or spring).
- <u>3)</u> Must be nominated by your Research Advisor.
- 4) The Research Excellence award may only be received once.

Excellence in Service Award:

The Graduate Service Excellence Award will be given each year to recognize an outstanding student who has gone above and beyond the calling of academic research to provide selfless service within their graduate program or the School of Medicine. Recipients will have demonstrated strong involvement within the following 6 categories: Leadership, Mentoring, Community, Diversity, Outreach, and/or Programmatic Improvement. In addition, recipients will have demonstrated high standards of professionalism and academics. This award was created in 2020.

Eligibility:

- 1) Must be a current School of Medicine graduate student seeking a degree through the Ph.D., M.D./Ph.D., M.D.+, E.D.H.P., or M.S. in Medical Sciences programs and have completed at least 1 year of the graduate program requirements.
- 2) Must be in good standing and have achieved the basic milestones for their respective program.
- 3) Must have demonstrated a strong record of involvement within their graduate program and service to the School of Medicine vision.
- <u>4)</u> May be nominated by a School of Medicine Graduate Faculty member, School of Medicine staff member, or School of Medicine student; up to 2 additional letters of support which provide insight to the nominee's breadth of service may also be added to the student's nomination packet.
- <u>5)</u> The Service Excellence award may only be received once.

ADDITIONAL POLICIES AND PROCEDURES

<u>Students Entering with Advanced Degrees:</u> students entering with an M.S., M.D., or D.V.M. from a U.S. institution are required to complete 64 rather than 96 credit hours, where **15 graded credit hours** will be coursework and the remainder research credit hours. Students with advanced degrees from outside the U.S. may be granted a similar reduction in hours required for the Ph.D. degree but must obtain approval from the Assistant Dean of Graduate Studies.

Transfer Policy

Current TAMU Graduate Students. The MSCI graduate student transfer policy for current TAMU Graduate students is initiated by contacting the MSCI Graduate Program. The Program will then transfer the request to the Graduate Admission Committee (GAC) who will provide their recommendation, based on the result of a majority vote of all GAC members, to the Graduate Program Executive Committee (GPEC) for final consideration.

Transfers from other TAMU graduate programs to MSCI Graduate Program are unlikely to be approved. Transfer students will not be able to carry out rotations that would create inconsistencies in student experience within the program. In rare instances where it is permitted, the faculty member who accepts the student transfer is required to fund the transfer student's stipend and tuition for the duration of their time in the program. No School of Medicine monies will be provided to fund TAMU graduate students who transfer into the MSCI Graduate Program.

Graduate Student Transfers from Outside Graduate Programs. In some cases, graduate students may move with faculty hired into the School of Medicine from another academic institution. These students will be reviewed by the GAC and GPEC. Prior coursework will be considered and requirements for additional course credits will be provided to the student and their faculty mentor. Students transferring in this manner are the financial responsibility (both stipend and tuition) of the faculty member who has joined the School of Medicine Graduate Faculty.

<u>Transfer Credits:</u> Up to 12 hours may be transferred with approval by the Dissertation Advisory Committee and the Assistant Dean of Graduate Studies. Grades for courses completed at other institutions are not included in computing the GPA. An official transcript from the university at which transfer courses are taken must be sent directly to the Office of Admissions.

<u>Petitioning to Waive Required Classes:</u> A letter should be written from the student, through the Research Advisor to the Assistant Dean of Graduate Studies and delivered to the School of Medicine-Office of Graduate Studies (8447 Riverside Pkwy, Suite 1000, Bryan, TX 77807).

<u>Stipend:</u> The School of Medicine will provide stipend support for first-year and possibly second-year Ph.D. graduate students; this arrangement will be indicated in the offer letter. No such support is provided for M.S. graduate students. Beyond the indicated period of stipend support, stipend support will be the obligation of the student's Research Advisor. Students will get a raise in the amount of \$1000/year, after they become candidates. Minimum stipend levels for each year will be set by the Graduate Program Executive Committee in consultation with the Assistant Dean for Graduate Studies. Students will be notified annually of the stipend amount.

Academic Standing: Maintaining a 3.0 GPA is considered to be satisfactory academic standing. If a student

falls below this minimum, the student will be under scholastic probation and will be given up to a year to achieve satisfactory standing. If the student fails to meet satisfactory academic status at the end of this time, loss of stipend or dismissal from the program may be recommended by the GPEC and/or the Assistant Dean of Graduate Studies.

<u>Absence During the Semester:</u> Students are obligated to inform the program if, for any reason, they are unable to participate in classes, rotations, or other programmatic activities for any significant time (typically more than 1 day). In such cases, the student should notify the student's Advisor or the Assistant Dean of Graduate Studies.

Leave Policy: If a leave over 2 weeks is requested for any reason, the student must receive approval from their Advisor and file a written request for the leave with the School of Medicine Office of Graduate Studies. If the student has not committed to a laboratory, the written request must be approved by the Assistant Dean of Graduate Studies. Requests are narratives (memos) that explain the reason for the leave and include the dates the student is requesting to be absent. The request must be signed by the student's Advisor. In case of disputes over leave, please contact the Assistant Dean of Graduate Studies. Once the program request is filed and approved by the TAMU Graduate & Professional School, the student fills out a leave petition with the Graduate and Professional School (https://ogsdpss.tamu.edu/) that must be approved before the student initiates the leave. Students on leave are not eligible for stipend support.

In the event that a leave unexpectedly extends beyond 2 weeks, the student must immediately notify their Advisor and the School of Medicine Office of Graduate Studies. The Advisor may recommend enrollment in the TAMU Graduate Continuous Enrollment course (TAMU 999) for 0 credit hours and withdrawal from any courses in which the student had enrolled prior to the leave. Only the Graduate and Professional School officials may enroll the student in the continuous enrollment course. At the discretion of the Advisor, the student may be placed on leave without pay (LWOP) and may be responsible for any possible tuition costs for possible online courses completed during the leave. If the student has not committed to a laboratory, the student may choose to be enrolled in the TAMU 999 course and withdraw from other courses. Students on LWOP are not eligible for stipend support. Additionally, students will be responsible for tuition costs during the LWOP.

<u>Improper Consensual Relationships:</u> System policy 07.05.01 defines an improper consensual arrangement as "a mutually agreeable amorous, romantic, and/or sexual relationship between ...an employee and a student" where the employee has authority over the other individual. Such relationships between graduate students and their mentor **OR** a graduate student and an undergraduate student that they supervise are highly discouraged, and if they occur, the faculty person **MUST** report this to their immediate supervisor. Further information regarding this restriction is found here: https://policies.tamus.edu/07-05-01.pdf

Student Resources

Office of Graduate Studies

Visit our website for more information on all programs, department contacts, activities, etc. https://medicine.tamu.edu/degrees/index.html

Registrar

The Office of the Registrar has the responsibility to maintain and store student records. Importantly, this office is the contact for degree audits and for transcripts.

979-845-1031

Suite 1501 of the General Services Complex

http://registrar.tamu.edu

Degree Audit	(979) 845-1089	
Records	(979) 845-1003	
Registration	(979) 845-7117	
State Policies	(979) 845-1085	
Transcripts	(979) 845-1066	

Financial Aid

The Office of Financial Aid has the charge to provide students with information and resources to attend Texas A&M University.

979-847-9061 General Services Complex aggieonestop@tamu.edu

Student Business Services

Student Business Office is dedicated to helping each student manage their financial obligations to Texas A&M University.

979-847-3337 Suite 2801 General Service Complex sbs@tamu.edu

The Graduate and Professional School

The Graduate and Professional School serves the Texas A&M Graduate and Professional student community. They have many programs to facilitate interdisciplinary research and helps graduate students with career development. Their website has links to calendars and deadlines, forms, tuition information, the graduate catalog, and student life.

979-845-3631 204 Nagle Hall grad@tamu.edu http://grad.tamu.edu

International Student Services

Assistance with visas, ELPE information, legal issues, writing center, etc. See their website for a full list of resources.

http://iss.tamu.edu/

979-845-1824 Pavilion, Suite 110

Student Services

Texas A&M University offers a variety of services such as student counseling services, housing services, disability services, a career center, and recreational activities. See their website for a full list of resources available to you that are included with your tuition at no additional cost. http://www.tamu.edu/current-students/index.html.

Students are also eligible for the Employee Assistance Program (EAP) which offers counseling and providers for certain medical issues, legal problems, and general work-life issues. https://employees.tamu.edu/eap/.

Learning Environment Awareness System

As an institution of medical education, Texas A&M School of Medicine's mission is to improve the health and well-being of the people of Texas through excellence in education, research and health care delivery. Our vision is to develop the innovators and leaders in medicine and biomedical research who will transform American medicine in the 21st century. With our mission and vision at the forefront, the following Learning Compact serves as a pledge and reminder of the mutual commitment of the members of our community (faculty, staff, residents, and students) to create a dynamic learning environment that fosters the acquisition of knowledge, skills, and attitudes critical to promoting excellence in medical practice. More specifically, it is the conduct of our members that serves as the medium through which the medical profession perpetuates its standards and inculcates its ethical values.

The Learning Environment Awareness System outlines the approach of the Learning Environment Enrichment Program (LEEP) to increase institutional awareness of exemplary and concerning behavior in as close to "real time" as possible within the School of Medicine. Once a report is submitted, it promptly moves through a collaboratively developed process. In general, the reporting, or awareness, process consists of: 1) submitting a report; 2) the report is immediately directed to a rapid response team; 3) the rapid response team collaboratively, and quickly, determines initial actions (e.g., peer messenger); and 4) an after action report is submitted and looped to a larger committee tasked with monitoring the learning environment. Concerns that related to Title VII, Title IX, or risk, fraud, and misconduct are separate from this process and directed the pertinent departments at Texas A&M University and Texas A&M University System. For more information regarding LEEP or how to report exemplary or concerning behaviors click HERE.

Title VII, Title IX, Risk, Fraud, and Misconduct Reporting

In addition to the School of Medicine's LEEP program, Texas A&M University has a separate online reporting mechanisms to report Title VII, Title IX, Risk, Fraud or Misconduct.

Title IX, as defined in the Education Amendment of 1972, prohibits discrimination on the basis of sex in educational programs and activities at institutions that receive federal financial assistance.

"Sexual harassment, including sexual violence, is a form of sex discrimination and is therefore prohibited under Title IX. Unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal or physical conduct of a sexual nature constitute sexual harassment when this conduct is so severe, persistent or pervasive that it explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work or educational performance, or creates an intimidating or hostile work or educational environment."

More about Title IX at Texas A&M

If you think your submission relates to risk, fraud, and misconduct of a Texas A&M University system member, please report this concern directly to the Texas A&M University System by clicking on the following link for more information: How to report a risk, fraud, or misconduct concern

If you think your submission relates to Title VII (discrimination based on status as a protected group [race, ethnicity, gender identity, etc.]), please report this concern directly to Texas A&M University by clicking on the following link for information: Stop Hate

If you think your submission relates to Title IX (sexual harassment or sex-based discrimination), please report this concern directly to the appropriate contact at Texas A&M University.

NOTICE OF NON-DISCRIMINATION AND ABUSE

Texas A&M University is committed to providing a safe and non-discriminatory learning, living, and working environment for all members of the University community. The University provides equal opportunity to all employees, students, applicants for employment or admission, and the public, regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity. Texas A&M University will promptly investigate and resolve all complaints of discrimination, harassment (including sexual harassment), complicity and related retaliation based on a protected class in accordance with System Regulation 08.01.01, University Rule 08.0.01.M1, Standard Administrative Procedure (SAP) 08.01.01.M1.01, and applicable federal and state laws.

Appendix Materials

I. Policy for Medical Sciences Ph.D. and M.S. Student Support

A. Ph.D. students working for the School of Medicine faculty:

The School of Medicine will provide stipend and tuition/fees support for the first 12-24 months of the student's enrollment in the Medical Sciences Graduate Program depending on the funding structure for a given graduate class. These terms are outlined for each graduate student in their offer letter. Subsequent years will be the responsibility of the Research Advisor to cover both stipend support and tuition/fees. If the Research Advisor cannot cover these expenses then the Research Advisor's department will do so. Department Heads acknowledge this responsibility when signing off on the Student Acceptance Memo.

B. M.S. students working for the School of Medicine faculty:

Stipend support as well as tuition and fees are NOT covered for M.S. students by the School of Medicine. These terms are described in each M.S. student offer letter.

II.a. <u>Laboratory Acceptance Memo – Ph.D.</u>

MEMORANDUM

TO:

	Assistant Dean of Graduate Studies		
THROUGH:	Advisor's Department Chairperson	 Date	
FROM:	Faculty Advisor	 Date	
This memo is to	acknowledge that I will accept the	responsibility of being an Ad	

Carol Vargas-Bautista, Ph.D.

This memo is to acknowledge that I will accept the responsibility of being an Advisor to ______ as they work towards their Medical Sciences Ph.D. degree. I understand that it is my responsibility to serve as the chair (or co-chair if I am not a School of Medicine faculty member) of the student's Dissertation Advisory Committee and to fulfill all the responsibilities of the chair as defined by the TAMU Graduate and Professional School and the School of Medicine's Graduate Program Executive Committee and the Graduate Instruction Committee (GIC). I will provide the resources for these studies and will advise and mentor the student in accordance with the requirements for the Medical Sciences Ph.D. program.

I also acknowledge the financial responsibility for this student including the stipend and benefits as set by the GIC. My stipend support for the student will begin on September 1, 20__. I will also pay tuition and fees beginning with fall semester, 20__, and I will budget for these items in future grants that would support the student. If for some reason, I am not able to meet these obligations, support of the student is the responsibility of my department, although assistance from the school's Office of Graduate Studies can be requested.

II.b. Laboratory Acceptance Memo – M.S.

MEMORANDUM

TO: Carol Vargas-Bautista, Ph.D. Assistant Dean of Graduate S

	Assistant Dean of Graduate Studies	
THROUGH:	Advisor's Department Chairperson	
FROM:	Faculty Advisor	 Date
	•	

This memo is to acknowledge that I will accept the responsibility of being an Advisor to ______ as they work towards their Medical Sciences M.S. degree. I understand that it is my responsibility to serve as the chair (or co-chair if I am not a School of Medicine faculty member) of the student's Advisory Committee and to fulfill all the responsibilities of the chair as defined by the Office of Graduate and Professional Studies and the school's Graduate Program Executive Committee and the Graduate Instruction Committee (GIC). I will provide the resources for these studies and will advise and mentor the student in accordance with the requirements for the Medical Sciences M.S. program.

III. MSCI Publication Policy – GIC Approved 11/20/17 modified and approved by GPC 07/21/20

For their dissertation, **Ph.D. graduate students** are expected to complete a research project of sufficient scope and breadth to constitute a significant contribution to their field of study. While the overall evaluation of the quality and quantity of the student's research is the responsibility of the student's Dissertation Advisory Committee, publication in peer-reviewed journals is the accepted standard for ensuring quality and adequate completeness of scientific studies. Such publication provides independent, outside review of the student's work to ensure that the dissertation results conform to the normative standards of scientific rigor and significance. In addition, successful publication during Ph.D. training is an important step of professional development that is often critical for advancing to subsequent scientific training. To maintain the highest quality of our MSCI training experience and to ensure that our Ph.D. graduates are effectively positioned for further training, the Graduate Program Executive Committee has implemented a publication requirement as outlined below:

- 1. Students must have at least 1 first-author publication published, accepted for publication/in press, or in minor revision status in a peer-reviewed journal before the final defense can be scheduled. Co-first-author publications are sufficient to satisfy this requirement, but review articles alone will not fulfill this requirement. Documentation of the publication or manuscript status should be provided to the Dissertation Advisory Committee and the School of Medicine Office of Graduate Studies prior to scheduling a defense.
- 2. An alternative to the above is that the complete Dissertation Advisory Committee certifies that an original research paper exists in an acceptable format for near future submission and publication. This certification must be provided to the School of Medicine Office of Graduate Studies prior to scheduling a defense.
- 3. There may be circumstances where a student has performed and completed an acceptable amount of research that would constitute a similar level but cannot meet the publication standard. In these instances the student or the chair of the student's Dissertation Advisory Committee should initiate a written appeal to the Dissertation Advisory Committee. The Dissertation Advisory Committee will review the appeal and submit a written opinion to the Graduate Program Executive Committee. A successful appeal will require a majority vote of the entire Graduate Program Executive Committee voting membership.

Thesis Option M.S. graduate students are expected to complete a research project and file a Thesis with OGAPS according to TAMU OGAPS requirements.

Non-Thesis Option M.S. graduate students are expected to produce a portfolio of courses and what they learned according to TAMU OGAPS requirements prior to graduation.

IV. Tips for a Productive Mentor::Mentee Relationship

An important aspect of choosing your Ph.D. lab is having a positive relationship with your PI. Communication is key to maintaining that relationship. As you start talking to PIs at TAMU School of Medicine, here are some topics you might want to ask about and discuss.

It is also important to understand, in general terms, what is expected of you as you become a full-fledged member of an academic research lab. This document outlines some of the things you can expect as you start your Ph.D. here at TAMU School of Medicine.

General expectations for graduate students at TAMU School of Medicine

- Learn how to plan, design, and conduct high quality scientific research
- Learn how to present and document your scientific findings
- Be honest, ethical, and enthusiastic
- Be engaged within the research group and with appropriate programs on campus
- Treat your lab mates, lab funds, equipment, and resources with respect
- Take advantage of professional development opportunities
- Obtain your degree
- Work hard—don't give up!

More detailed/lab-specific expectations

Take ownership over your educational experience

- Acknowledge that you have the primary responsibility for the successful completion of your degree.
 This includes commitment to your work in classrooms and the laboratory. You should maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- Ensure that you meet regularly with your PI and provide them with updates on the progress and results of your activities and experiments. Make sure that you also use this time to communicate new ideas that you have about your work and challenges that you are facing. Remember: your PI cannot address or advise about issues that you do not bring to their attention.
- Be knowledgeable of the policies, deadlines, and requirements of the graduate program, the graduate school, and the university. Comply with all institutional policies, including academic program milestones, laboratory practices, and rules related to chemical safety and biosafety.
- Actively cultivate your professional development. There are several groups on campus with resources in place to support professional development for students. Your PI will expect you to take full advantage of these resources, since part of becoming a successful scientist involves more than just doing academic research. You are expected to make continued progress in your development as a teacher, as an ambassador to the general public representing the University and your discipline, with respect to your networking skills, and as an engaged member of broader professional organizations. Seek out related opportunities for professional development. You should always plan to attend our departmental weekly seminar and be prepared to engage our guests when you get an opportunity. Various organizations on campus engage in science outreach and informal education activities.

Attendance at conferences and workshops will also provide professional development opportunities. When you attend a conference, your PI will expect you to seek out these opportunities to make the most of your attendance. You should become a member of one or more professional societies such as the American Association for the Advancement of Science as well as other discipline-specific Societies.

Be a team player

- Attend and actively participate in all group meetings, as well as seminars that are part of your educational program. Participation in group meetings does not mean only presenting your own work but providing support to others in the lab through shared insight. You should refrain from using your computer or iPhone during research meetings. Even if you are using the device to augment the discussion, it is disrespectful to the larger group to have your attention distracted by the device. Do your part to create a climate of engagement and mutual respect.
- <u>Strive to be the very best lab citizen</u>. Take part in shared laboratory responsibilities and use laboratory resources carefully and frugally. Maintain a safe and clean laboratory space where data and research participant confidentiality are protected. Be respectful, tolerant of, and work collegially with all laboratory colleagues: respect individual differences in values, personalities, work styles, and theoretical perspectives.
- <u>Be a good collaborator</u>. Engage in collaborations within and beyond our lab group. Collaborations are more than just publishing papers together. They demand effective and frequent communication, mutual respect, trust, and shared goals. Effective collaboration is an extremely important component of the mission of our lab.
- <u>Leave no trace</u>. As part of our shared laboratory space, you will often be using equipment that does not belong to our lab. You should respect this equipment and treat it even more carefully than our own equipment. Always return it as soon as possible in the same condition you found it. If something breaks, tell your PI right away so that you can arrange to fix or replace it. Don't panic over broken equipment. Mistakes happen. But it is not acceptable to return something broken or damaged without taking the steps necessary to fix it.
- <u>Acknowledge the efforts of collaborators</u>. This includes other members of the lab as well as those
 outside the lab. Don't forget important individuals within and outside the lab who have helped you
 with your work both directly and indirectly.

Develop strong research skills

- <u>Take advantage of your opportunity to work at a world-class university by developing and refining stellar research skills</u>. Your PI expects that you will learn how to plan, design, and conduct high quality scientific research.
- Challenge yourself by presenting your work at meetings and seminars as early as you can and by preparing scientific articles that effectively present your work to others in the field. The 'currency' in science is published papers, they drive a lot of what we do and because our lab is supported by taxpayers, we have an obligation to complete and disseminate our findings. Your PI will push you to

publish your research as you move through your training program, not only at the end. As a student pursuing a doctoral degree you will be expected to be lead author on at least one publication.

- <u>Keep up with the literature so that you can have a hand in guiding your own research</u>. Block at least one hour per week to peruse current tables of contents for journals or do literature searches. Read at least one paper a week in the area of your research. Participate in journal clubs.
- Maintain detailed, organized, and accurate laboratory records. Be aware that your notes, records
 and all tangible research data are property of the University and your PI is the one that oversees
 them. When you leave the lab, your PI will encourage you to take copies of your data with you. But
 one full set of all data must stay in the lab, with appropriate and accessible documentation.
 Regularly backup your computer data.
- Be responsive to advice and constructive criticism. The feedback you get from your PI your colleagues, your committee members, and your course instructors is intended to improve your scientific work.

Work to meet deadlines

- Strive to meet deadlines: this is the only way to manage your progress. Deadlines can be managed in a number of ways, but your PI will expect you to work your best to maintain these goals. You should establish mutually agreed upon deadlines for each phase of your work during one-on-one meetings at the beginning of each term. For new graduate students, there is to be a balance between time spent in class and time spent on research. It is your responsibility to talk with your PI if you are having difficulty completing your work.
- Be mindful of the constraints on your PI's time. When we set a deadline, your PI will block off time to
 read and respond to your work. Allow a minimum of one week prior to submission deadlines for your
 PI to read and respond to short materials such as conference abstracts and three weeks for me to work
 on manuscripts or grant proposals. Please do not assume your PI can read materials within a day or
 two, especially when they may be traveling.

Communicate clearly

- Remember that all of us are "new" at various points in our careers. If you feel uncertain, overwhelmed, or want additional support, please overtly ask for it. Your PI will likely welcome these conversations and view them as necessary.
- Let your PI know the style of communication or schedule of meetings that you prefer. If there is something about a mentoring style that is proving difficult for you, please tell your PI so that you give them an opportunity to find an approach that works for you. No single style works for everyone; no one style is expected to work all the time. Do not cancel meetings with your PI if you feel that you have not made adequate progress on your research; these might be the most critical times to meet.
- <u>Be prompt</u>. Respond promptly (in most cases, within 48 hours) to emails from anyone in your lab group and show up on time and prepared for meetings. If you need time to gather information in response to

an email, please acknowledge receipt of the message and indicate when you will be able to provide the requested information.

- <u>Discuss policies on work hours, sick leave and vacation with me directly</u>. Consult with your PI and notify fellow lab members in advance of any planned absences. Your PI will expect that most lab members will not exceed two weeks of personal travel away from the lab, but this can be discussed on a case by case basis. Work-life balance and vacation time are essential for creative thinking and good health; you are encouraged to take regular vacations. Be aware, however, that there will be times—especially early in your training—when more effort will need to be devoted to work and it may not be ideal to schedule time away.
- <u>Discuss policies on authorship and attendance at professional meetings with your PI before beginning any projects to ensure that we are in agreement</u>. Your PI will expect you to submit relevant research results in a timely manner
- Help other students with their projects and mentor/train other students. This is a valuable experience! Undergraduates working in the lab should be encouraged to contribute to the writing of manuscripts. If you wish to add other individuals as authors to your papers, please discuss this with me early on and before discussing the situation with the potential co-authors.

What you should expect from your PI

Your PI should promote a positive, supportive, and inclusive work environment

- Your PI should be available for regular meeting and informal conversations
- Your PI should be able to help you navigate your graduate program of study. As stated above, you are
 responsible for keeping up with deadlines and being knowledgeable about requirements for your
 specific program. However, your PI should be available to help interpret these requirements, select
 appropriate coursework, and help you to select committee members.
- Your PI should discuss data ownership and authorship policies regarding papers with you.
- Your PI should be your advocate
- Your PI should be committed to mentoring you, even after you leave the lab.
- Your PI should work to facilitate your training in complementary skills needed to be a successful scientist in any career path, such as oral and written communication skills, grant writing, lab management, mentoring, and scientific professionalism.
- Your PI should encourage you to attend scientific/professional meetings and make an effort to fund such activities.
- Your PI should strive to be supportive, equitable, accessible, encouraging, and respectful, to understand your unique situation, and mentor you accordingly.