*This program is no longer accepting new students and will be sunset after the last enrolled student graduates*

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I. THE MICROBIOLOGY AND IMMUNOLOGY TRACK

The Microbiology and Immunology (MI) PhD track is part of the Health Science Center-wide integrated multi-disciplinary graduate program (IMGP). Faculty members of the MI PhD Track focus on microbial infection, host responses to infection and other aspects of the immune system in health and disease. Track faculty members apply state-of-the-art experimental approaches, including genomics, proteomics and bioinformatics, as well as other genetic, biochemical, cellular and functional assays to study the regulation, host interactions and pathogenesis of viral, bacterial, fungal and parasitic infections. In addition to mechanisms of host interactions with microorganisms, responses to allergens, and tumor and self-antigens are also investigated at the molecular, cellular and systemic levels. Students in the MI Track will gain the broad knowledge and skills necessary for future research careers in many different areas of basic and clinical life sciences, including Microbial Genetics, Physiology and Pathogenesis, Infectious Diseases, Immune Regulation, Vaccinology, Tumor Immunology, Autoimmunity and Allergy.

The day-to-day operations of the MI PhD track are administered by the track Committee on Graduate Studies (COGS). COGS reviews pertinent policy considerations and curriculum of the MI track, and the qualifications of faculty requesting membership on the track Graduate Faculty. COGS monitors and evaluates student academic progress, approves the appointment of Supervising Professors, Qualifying Exam committees, and research (dissertation) committees. COGS also mediates disputes between students and Supervising Professors.

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II. MI TRACK PhD STUDENT TRAINING PROGRAM

The steps shown below leading to graduation are summarized in the table that follows. It is the responsibility of each student to adhere to the timeline and to submit all paperwork required to verify appropriate academic progress in the M&I Ph.D. program. A delay in the progression described below could result in a student receiving a grade of unsatisfactory (“U”) for academic/research progress. Extreme or extenuating circumstances resulting in such a delay may allow temporary exemption from this requirement only if approved by COGS.

1. UTHSCSA Compact Between Graduate Students and Their Supervising Professors

Certain paperwork must be completed and submitted in order to comply with UT System and GSBS mandates designed to ensure productivity and accountability.

Pre-doctoral training entails both formal education in advanced scientific knowledge and theory as well as research training under the supervision of one or more investigators who are qualified to
fulfill the responsibilities of a mentor. A positive mentoring relationship between the pre-doctoral student and the Supervising Professor is a vital component of the student’s preparation for a successful biomedical career.

Individuals who pursue a biomedical graduate degree are expected to take responsibility for their own scientific and professional development. In addition, faculty members who advise students are expected to fulfill the responsibilities of a mentor, including the provision of scientific training, guidance, instruction in the responsible conduct of research and research ethics, and financial support.

Therefore, **within 4 weeks of formally selecting a supervising professor**, and annually thereafter, a formal meeting and discussion between a student and his/her Supervising Professor is expected in order to insure the integrity of the set of guiding principles and milestones that are intended to promote and support a positive mentoring relationship. For Ph.D. students, this meeting will be documented by the signing and official filing of the **Student-Mentor Compact** (form posted on M&I website). Although the Compact is not a legally binding contract, with their signatures, both the student and the mentor confirm that all topics listed in the Compact have been discussed and that they are committed to uphold the principles agreed upon. The signed form is to be reviewed by COGS and then filed in the office of the M&I Academic Coordinator.

In addition to the student-mentor Compact, at the time of entering into a new research laboratory, a student is expected to review and discuss with the Supervising Professor the **official M&I Track Milestones Agreement** (form posted on M&I website). This document is provided for the purpose of confirming that a student and the student’s Supervising Professor have been clearly informed that certain programmatic milestones are expected prior to receiving the Ph.D. degree, and that there is an expected timeline to complete these milestones. That is, a student is expected to reach particular milestones within a specified time period in order to demonstrate satisfactory progress through the program. A student who demonstrates unsatisfactory academic progress may lose funding, be placed on academic probation, or be dismissed from the program.

2. **Course Work** (see Appendix A for detailed course descriptions)

There are required INTD courses taken by all graduate students in the graduate school, required MICR courses taken by students who choose the MI track, and advanced elective courses that can be selected from the curricula of any of the IMGP tracks.

After completing the IMGP common core course (**INTD 5000, Fundamentals of Biomedical Sciences**) given during the Fall semester of the first year, students who choose to enter the M&I track are required to take several Spring semester courses during the first year, including:

**MICR 5003, Core Concepts in Microbiology & Immunology (Spring semester, first year)**

Note that although this 4 credit hour track core concept course is taught in four modules for the convenience of students from other tracks, all students in the M&I track are required to take all four modules and it is graded as a single course.

**MICR 5029, Building Scientific Thinking Skills (Spring semester, first year) INTD 6002, Ethics in Scientific Research (Spring semester, first year)**
Recurring courses that must be taken throughout an M&I student’s program of study beginning in the second year of the program include:

MICR 5030, Journal Club (every Fall and Spring semester every year after first year)

MICR 5090, Acquiring Presentation Skills (every Fall and Spring semester every year after first year)

MICR 6091, Seminars in Microbiology & Immunology (every Fall and Spring semester every year after first year)

MICR 6097, Research (all semesters every year after first year; number of credit hours may vary)

Other requirements for graduation of M&I PhD candidates include:

One COGS-approved advanced elective course from any IMGP track (worth at least 1 credit hour); the student’s selection of the advanced elective should be in consultation with the student’s Supervising Professor (submit COGS Form 117 posted on COGS website).

MICR 7099, Dissertation

(Note: Registration for a least two semesters of MICR 7099, usually taken during a student’s fourth or fifth year in graduate school, is required for graduation of Ph.D. candidates. Prerequisite: COGS and GSBS approval of Dissertation Research Committee composition and Dissertation Research Proposal).

FINAL HOURS

Once a student has reached a stage in his/her research program, when the dissertation defense and graduation are imminent (usually in the fifth year of study), a student may enroll in Final Hours. Enrolling in Final Hours is not required for graduation, but allows a student the one-time opportunity to register for 3 credits hours while still maintaining full-time student status, thus reducing tuition costs. It is expected, however, that although a student would not officially enroll in the usual required courses while taking Final Hours, the student will continue to attend APS, Journal Club, and Seminars in Microbiology & Immunology as prescribed above. Furthermore, Final Hours may not be taken more than once; thus, if a student does not defend and graduate in that semester, he/she must resume enrolling in the standard number of credit hours required of a full-time student.

3. Laboratory Rotations and Selection of Temporary Supervising Professor

By the end of a student’s first academic year, at least three laboratory rotations are to be completed before officially choosing a supervising professor.
At the end of a student's first Spring semester, each student is to submit COGS Form 101 (form posted on M&I website) to COGS requesting approval of his/her choice of Temporary Supervising Professor. Before submitting this request, the student must confirm that the faculty member with whom the student wishes to work 1) is willing to accept the student into his/her laboratory; and 2) has a credentialed (mentoring) faculty appointment in the M&I track. Final approval of a Temporary Supervising Professor is then requested from the Dean of the GSBS by submitting the SELECTION OF TRACK and DISSERTATION SUPERVISING PROFESSOR FORM (form posted on M&I website).

4. Formation of the Temporary Supervising Committee

Once the Temporary Supervising Professor is identified, and approved by COGS and the GSBS, a student may enroll in M&I Track Research (MICR 6097) to begin dissertation research. Within 4 weeks after the beginning of the Fall semester of Year 2, each student must form a Temporary Supervising Committee (TSC), whose members are to assist the student in developing a dissertation research project, meet as required to assess the student's research progress, and serve as the core of the student's Qualifying Examination Committee. TSC membership must consist of the Temporary Supervising Professor and two other members of the Microbiology & Immunology Track Graduate Faculty. Members are selected by the student and his/her Temporary Supervising Professor and must be approved by COGS (COGS Form 102 posted on M&I website). Subsequent changes in the composition of the TSC are allowed at any time but are subject to the approval of COGS. The TSC functions until the student's Dissertation Supervising Committee is formed (usually in the student's third year). Members of the TSC may become members of the Dissertation Committee.

5. Qualifying Examination

M&I Track Students working toward the Ph.D. degree must pass the Qualifying Exam as described in Appendices B and C below. Members of the Qualifying Examination Committee will determine if a student examinee satisfactorily prepares an appropriate research question, and subsequently defends a research proposal designed to answer the question. In addition, the student's general knowledge related directly or indirectly to the proposal is tested during the oral defense. Possible exam outcomes are described below in the section on evaluating student academic progress and are reported to COGS on the Qualifying Exam Report Form 118 posted on the M&I COGS website.

6. Advancement to Candidacy for the PhD

After passing the Qualifying Examination, a student must petition COGS for admission to candidacy for the Ph.D. degree by submitting to the COGS chair official Graduate School form (GSBS Form 32; form posted on M&I website) with all necessary signatures. The approval of COGS for admission to candidacy is based on three criteria:

a. Successful completion of the Qualifying Examination (evidenced by the signatures of the Examination Committee members on GSBS Form 32; form posted on M&I website)
b. A positive evaluation of the student's potential for performing successful independent research (indicated by the signature of the Temporary Supervising Professor on GSBS Form 32)

c. Satisfactory performance in formal course work (including the elective advanced course). A student cannot advance to candidacy if he/she is on academic probation.

When all of these criteria are met, COGS will recommend to the Dean of the Graduate School that the student be admitted to candidacy. This recommendation requires the signature of the Chair of COGS on GSBS Form 32.

7. Preparation and Defense of Dissertation

Establishing a Dissertation Supervising Committee:

The candidate’s Dissertation Supervising Committee is responsible for certifying to COGS that a student has carried out meritorious research of the caliber appropriate for a Ph.D. dissertation, and also serves as an important resource of scientific expertise for the candidate. Following approval for advancement to candidacy, a student, in consultation with his/her Supervising Professor, is to submit to the Discipline Director a list of individuals whom they recommend to serve as Dissertation Supervising Committee members.

The Dissertation Supervising Committee must be approved by the Discipline Executive Committee by the end of the Fall semester of the student's third year. After approval by the Discipline Executive Committee, the Dissertation Supervising Committee composition must then be approved by the Graduate Faculty Council (GFC)

The student is to meet with the COGS-approved Dissertation Supervising Committee (with the exception of the member from outside the University) by the end of the Fall semester of the third year to discuss at length and in detail his/her dissertation research that will be the basis of the Dissertation Research Proposal.

Approval of the Dissertation Research Proposal should be obtained before the end of the Spring semester of the third year. The purpose of preparing and getting approval for a dissertation proposal is to ensure that the student has a feasible research project that represents a likely significant contribution to his/her chosen field. The proposal is intended to serve as a framework for the dissertation project, not as a rigid, detailed agenda for the student's research efforts.

The student is to meet with the Discipline Executive Committee-approved Dissertation Supervising Committee (with the exception of the member from outside the University) by the end of the Spring semester of the third year to discuss at length and in detail his/her dissertation proposal which should have been circulated among committee members prior to the meeting. The student will modify the research proposal until it is acceptable to the Dissertation Supervising Committee.

Once the Discipline Executive Committee and the Graduate Faculty Council (GFC) approve a student's dissertation committee composition and dissertation proposal, certain amendments to either may require the Discipline Executive Committee/GFC approval. Re-approval would be needed if such changes involve the deletion or addition of a committee member, or a substantial revision to the candidate's dissertation research project. Re-approval is not necessary if
alterations in the research plan do not substantially change the general context of the dissertation proposal.

When the Dissertation Supervising Committee is satisfied that the research accomplished by the student is of sufficient quality and quantity to constitute a significant contribution to the field (i.e., the area of the student’s studies), formal permission is to be granted to the student to write his/her dissertation.

The Supervising Professor should notify the Chair of COGS, in writing, that the student has been given permission to write the dissertation. The format of the dissertation must conform to the style and format guidelines of the Graduate School of Biomedical Sciences. These guidelines are available from the Office of the Graduate School Dean and should be consulted prior to drafting the dissertation. Whether the student uses the traditional dissertation format, or the optional "chapter" format, must be discussed and agreed upon with his/her Dissertation Supervising Committee.

When writing the dissertation, the student should submit drafts to the Supervising Professor until they are both satisfied that it is a well-written document containing all of the experimental and background information promised to the Supervising Committee. Once the Supervising Professor approves a final draft of the dissertation, complete copies are given to each member of the Dissertation Supervising Committee, including the external member. The members of the Dissertation Supervising Committee should be given a reasonable period of time, usually three weeks, in which to evaluate the dissertation. In the event that two or more members of the Supervising Committee feel that the dissertation is not suitable for defense, the student shall make appropriate changes until the committee is satisfied. When the Dissertation Supervising Committee judges the dissertation to be suitable for defense, the student must submit a Request for Final Oral Examination (GSBS Form 40; form posted on M&I website), with all of the appropriate signatures approving the dissertation and the examination date, to the Dean of the Graduate School. The appropriate number (inquire at Dean's office) of copies of this form, plus dissertation abstract and vita, must be received by the Dean at least two weeks before the dissertation defense date. COGS is the arbiter of disputes that cannot be resolved between student and Supervising Committee.

**Final Hours.** Normally, all Ph.D. students must be enrolled as full-time students (i.e., 9 credit hours in the Fall and Spring semesters). During a student's last semester, while finishing and defending his/her dissertation, a student may register for three credit hours (i.e., Final Hours). That is, once a student has reached a stage in his/her research program, when the dissertation defense and graduation are imminent (usually in the fifth year of study), a student may enroll in Final Hours. Enrolling in Final Hours is not required for graduation, but allows a student the one-time opportunity to register for 3 credits hours while still maintaining full-time student status, thus reducing tuition costs. It is expected, however, that although a student would not officially enroll in the usual required courses while taking Final Hours, the student will continue to attend APS, Journal Club, and Seminars in Microbiology & Immunology as prescribed above. Furthermore, Final Hours may not be taken more than once; thus, if a student does not defend and graduate in that semester, he/she must resume enrolling in the standard number of credit hours required of a full-time student.
Final Oral Examination: A public announcement of the Final Oral Examination is distributed by the Dean of the Graduate School so that all interested persons may attend the public defense and question the candidate. Typically, after presenting his/her dissertation research in a departmental seminar, the candidate will field questions from members of the audience who are not on the Dissertation Supervising Committee. Next, the Dissertation Supervising Committee meets with the candidate in a closed-door session to administer an intensive and detailed oral examination of the dissertation and the dissertation research. The committee members then vote on the candidate's success or failure on the Final Oral Examination; the committee members record their votes by signing GSBS Form 43 (Report on the Final Oral Examination; form posted on M&I website). More than one vote for failure indicates failure of the examination. If the student fails the Final Oral Examination, the Supervising Committee should submit a recommendation regarding remedial action; COGS will consider the recommendation and determine what action should be taken. If the student passes the Final Oral Examination, the outcome of the Dissertation Supervising Committee's deliberations are sent to COGS using GSBS Form 43, and if acceptable, the recommendation to grant the Ph.D. is forwarded to the Graduate Faculty Council.

The Supervising Committee members must also indicate their approval of the final written version of the dissertation by placing their signatures on the "Approval Page" of the dissertation. Should extensive revisions of the dissertation be requested by the Dissertation Supervising Committee, the Supervising Professor should withhold his/her signature on GSBS Form 43 until all of the necessary changes are made to the dissertation. Under these circumstances, each member of the Dissertation Supervising Committee should be given the option to review revisions in the dissertation prior to the certification of the final document by the Supervising Professor. Once requested revisions are made and the Approval Page is signed by members of the committee, the student should submit the signed GSBS Form 43 to COGS. Even if the student passes the Final Oral Examination, the final version of the dissertation must be approved by the Supervising Committee before COGS will consider the recommendation by the Supervising Committee that the degree be awarded. Finally, the student should submit the COGS-signed GSBS Form 43 dissertation and the "Approval Page" to the Office of the Graduate Dean for signature by the Dean. The Dean's signature and the approval of the dissertation by the GFC are required before the degree can be awarded.

Overview of M&I track MD/PhD program

Dual degree (MD/PhD) students in the M&I Track will undertake an "abbreviated" course load in deference to the material that they have already taken as medical students. The Microbiology and Immunology Track Curriculum Committee has recommended, and the Microbiology and Immunology COGS subsequently approved, the following:

a. MD/PhD students will be excused from INDT 5000 (Fundamentals of Biomedical Sciences), MICR 5003 (Core Concepts in Microbiology and Immunology), and INDT 6002 (Ethics in Scientific Research). The Curriculum Committee felt that the materials that are contained in these courses have already been given to the students during their 2 years of medical school.

b. During the “transition” summer, prior to beginning graduate studies, the dual degree student is expected to begin research activities with the selected/approved Supervising Professor,
when feasible, as an extended rotation. Registration for graduate courses will commence in the Fall semester.

c. The MD/PhD students will be expected, once their graduate studies have commenced, to enroll in: MICR 5029 “Building Scientific Thinking”

One advanced elective course (at least 1 credit hour)

MICR 5030, Journal Club (every Fall and Spring semester)
MICR 5090, Acquiring Presentation Skills (every Fall and Spring semester)
MICR 6091, Seminars in Microbiology & Immunology (every Fall and Spring semester) MICR 6097, Research (all semesters every year; number of credit hours may vary) MICR 7099 , Dissertation (2 semester required; credit to be arranged)

III. EVALUATING STUDENT ACADEMIC PROGRESS

The Microbiology & Immunology Track COGS will review the academic progress of students in the track at least twice per year, usually just after the fall semester is completed and just after the spring semester is completed. However, if at any time a Graduate Faculty Member perceives that a student is not making sufficient progress in the program, the matter can be brought to the attention of the Chair of COGS so that COGS can evaluate the situation promptly. The criteria used for evaluating student academic progress are described in the next four sections.

When a student’s progress is being reviewed by COGS and it is anticipated that the review may result in an action that will negatively affect the status of the student in the program, the student who is the focus of that review will 1) be informed that such a review will be taking place; and 2) be asked to provide any relevant information or material that the student feels that COGS should consider during its deliberations. Furthermore, the Chair of COGS will invite the Supervising Professor to the meeting in order to obtain additional information about the student’s academic progress. The student will be notified of the outcome of the evaluation as soon as is possible.

The following six sections describe expectations that reflect satisfactory academic progress:

1. Grade Point Average

All students are expected to maintain a 3.0 GPA with no more than one "C" grade in any of the required or elective courses (Acquiring Presentation Skills, Ethics, Teaching, Research, Thesis and Dissertation are not included in the GPA calculation since they are graded as "S" or "U"). Any student whose GPA is less than 3.0 will be placed on academic probation. Any student who receives two "C" grades will be placed on academic probation, even if the overall GPA is 3.0 or greater. If either of these two situations is not corrected in the manner and time frame recommended by COGS, the student will be subject to dismissal from the program. Furthermore, if a student receives a "C" in any course, COGS may recommend remediation. The form of the remediation will be decided by COGS in consultation with the appropriate Course Director and will be communicated in writing to the student by the Chair of COGS. That is, remediation may be satisfied by retaking the course or may consist of some other process (taking an exemption exam, writing a paper, etc.). A grade earned by remediation may replace the original grade for purposes of calculating the GPA, but the original grade remains on the transcript.
Any student who receives a "D" or "F" in any course will be placed on academic probation and must retake the course. Moreover, receiving a "D" or "F" grade may be grounds for dismissal from the graduate program.

Students may withdraw from a course only after getting the approval of COGS and the director of the course from which they wish to withdraw. In general, students will be allowed to drop a course only if there are extenuating circumstances. Poor academic performance alone is not an extenuating circumstance.

2. “Satisfactory/Unsatisfactory” Coursework

For certain courses (see below), student performance is reported as Satisfactory (S) or Unsatisfactory (U). If a student does not show an appropriate level of participation and proficiency in these courses and receives a “U”, COGS will place the student on academic probation. Moreover, receiving two “U”s in successive semesters is grounds for dismissal from the program. Key courses for which S/U grading is used include:

**Acquiring Presentation Skills:** Grading is determined by two factors. First, each student must present one departmental seminar each year, evaluated and graded by a panel of faculty members. A student may be excused from presenting a seminar if the Course Director and COGS agree that the student’s dissertation defense and graduation are imminent (thereby making the APS seminar presentation and dissertation defense seminar effectively redundant). Second, grading is dependent on student attendance. That is, receiving an “S” requires that a student attend a certain number of presentations given by the other students in the track (number determined and announced by the Course Director).

**Journal Club:** Grading is determined by two factors. First, each student must satisfactorily present a minimum of one presentation of a paper from the literature. Second, grading is dependent on student attendance. That is, receiving an “S” requires that a student attend a certain number of Journal Club meetings (number determined and announced by the Course Director).

**Seminars in Microbiology & Immunology:** A grade of Satisfactory/Unsatisfactory (S/U) is based on attendance to the weekly MI department seminars, as determined and announced by the Course Director.

3. Research/Academic Progress

Each semester, a grade of satisfactory (S) or unsatisfactory (U) is given for research/academic performance. The grade is determined by two factors. First, each semester the student's Supervising Professor will submit an “S” or “U” to the COGS chair. This determination will be made in consultation with the student’s Supervising Committee via reports submitted following research committee meetings and based upon the student's overall performance in the laboratory including experimental progress, academic development, effort and, when appropriate, progress in writing the dissertation. Second, satisfactory research/academic progress reflects a student’s adherence to the expectations of the M&I graduate program, and the Student-Mentor Compact and Milestones Agreement. This includes satisfying programmatic requirements and progressing through the program according to the COGS-mandated timeline.
Research Committee Meetings: Each student must meet with his/her Supervising Committee at least once each semester to present and discuss progress in research activities.

At research committee meetings, a student should provide each member of the committee with a brief written progress report that includes a statement of the aims of the research project/dissertation proposal, the progress that was made toward satisfying the aims, and an outline of future plans. Data in the form of figures and tables may be included, where appropriate. During the meeting, the student should summarize the project background, relevant published work that has an impact on the research, and the results that he/she has obtained with emphasis on the experimental findings made since the last meeting. Members of the Supervising Committee will record their evaluations of student progress using appropriate forms (COGS evaluation form 103, 104, or 105 and the COGS summary form 106). It is the student’s responsibility to provide the necessary report form to committee members and to complete the “student information section” at the top of the forms. The student should collect the forms after the meeting and provide copies to the COGS chair. These evaluations are used as part of the evaluation by the Supervising Professor in recommending a research/academic progress grade for the student, and as verification by COGS that a committee meeting was conducted according to the M&I program timeline.

If a student does not hold a Supervising Committee meeting within the prescribed semester, he/she will receive a grade of incomplete (I) in research for the semester in which no meeting was held. If that student does not rectify the situation by holding a Supervising Committee meeting within 30 days following the last day of the semester in which a meeting should have been held, the research grade shall change from incomplete to unsatisfactory (U). Any student who receives a "U" in research will be placed on track academic probation by COGS. A student who receives two “U”s in Research/Academic Progress may be considered for dismissal from the program.

4. Qualifying Examination Outcomes

Candidates for the Ph.D. degree must pass the Qualifying Exam as described in Appendix B. Qualifying Exam Committee members will evaluate student performance based on 1) the preparation and defense of a research proposal designed to answer an experimental question, as well as 2) the adequacy of the student's general knowledge associated with aspects of the proposal. The chair of the Examination Committee will report the deliberations of the committee on COGS Form 118 as one of three recommendations (the student should bring the appropriate number of forms to the exam):

i) The student has passed the Qualifying Examination with no restrictions.

ii) The student has failed the Qualifying Examination but shows signs of promise. In this case, the student will be required to repeat the examination with the same committee and the same proposal. Rarely, the Exam Committee may recommend that the student revise the proposal for the re-examination. The re-examination of the student should normally be completed within three months of the original examination. Failing a re-examination is cause for dismissal from the Ph.D. program. A student who has failed the Qualifying Exam may petition COGS for admission to the M.S. degree program.
iii) The student has failed the Qualifying Examination and the Examination Committee agrees that the student is not qualified for admission to candidacy for the Ph.D. degree. In this case, COGS will review the student's overall graduate record as soon as possible to determine the student's fate in the program. If COGS does not accept the Qualifying Examination Committee's recommendation and decides to allow the student to take a re-examination, the second examination shall be with a new Examination Committee. If COGS decides that the student should not continue toward the Ph.D., COGS may recommend dismissal from the program or to switch from the Ph.D. to the M.S. degree objective.

5. Expected Time-to-Completion of Degree Requirements

Ph.D. students are usually expected to complete their degree requirements, including the dissertation defense, in approximately five years of full-time study. If a student has not defended the dissertation before completing six years of full-time studies, he/she is subject to dismissal from the program for lack of progress. A student may request that COGS extend the limit of six years for degree completion, but such a waiver will be granted only under exceptional circumstances.

If the Supervising Committee, without dissent, approves a student’s dissertation or thesis and its defense, the Chair of COGS may forward that recommendation to the Dean of the Graduate School without a formal vote of COGS. However, if one or more members of COGS request a formal vote of COGS regarding the awarding of a degree to a particular student, such a vote will be held by the Chair of the COGS prior to signing GSBS Forms 41 or 43. Such a request must be sent to the Chair of COGS, in writing, within one week of the oral defense of the student’s dissertation or thesis.

6. Academic Probation and Dismissal

A student can be placed on academic probation by COGS for failure to meet any of the expectations of the program described above. The Chair of COGS must notify a student in writing of his/her probationary status. This communication shall include the reason for the probationary status, the requirements to rectify the probation and the time allowed to complete the requirements (usually one semester). A student who fails to meet the probationary requirements in the time allowed or fails to meet any of the other expectations of the program while on probation is subject to dismissal from the Ph.D. program.

If dismissal of a student is being considered by COGS, the student will be informed by the Chair of COGS that such an action is being considered. The Chair of COGS will solicit, from the student being considered for dismissal, any relevant information the student would like COGS to consider in its deliberations. The student will be notified of the COGS decision in writing, along with the reasons for the decision. The student will be allowed two weeks to submit a written appeal of the decision to COGS.

IV. APPOINTMENT OF M&I TRACK FACULTY MEMBERS

Faculty mentors who train Ph.D. students in the M&I track come from a wide variety of departments and institutions in the San Antonio area, including the Departments of Microbiology & Immunology, Medicine, Pathology, Cell & Structural Biology at UTHSCSA, the department of
Biology at UTSA, Children’s Cancer Research Institute, San Antonio Cancer Institute and the Department of Virology & Immunology at the Texas Biomedical Research Institute. The procedure for gaining appointment to the M&I Track graduate faculty is as follows:

1. Procedure for acquiring credentialed appointment to M&I Track Graduate Faculty

a. **Nomination:** Any full-time faculty member of the UTHSCSA is eligible to be nominated by a member of the Microbiology & Immunology Track Faculty (self-nominations are accepted). Faculty members from other institutions may also be nominated, but must first have a concurrent appointment in a department of the UTHSCSA. A nominee should submit, to the Chair of COGS, a letter requesting track membership, including whether the request is for a “mentoring” or “non-mentoring” position. The COGS chair will then direct the nominee to the Track Membership Request forms that must be filled out and filed following the accompanying instructions at the Graduate Dean’s office.

b. **Evaluation:** Following administrative review by the Dean, the request for track membership will then be forwarded to the M&I Track Credentialing Committee. The committee will review the nominee’s qualifications and may request that a seminar be presented to the M&I Track faculty. The criteria evaluated are detailed below. A recommendation will be forwarded from the Track Credentialing Committee to the Chair of COGS, who will then pass the recommendation back to the Dean’s office for final approval. Typically, a nominee will be notified of the decision by the Chair of COGS as well as the Dean’s office.

c. **Recertification:** As required by the Bylaws of the Graduate Faculty Assembly and the Graduate Faculty Council, every faculty member’s participation as a Track Graduate Faculty member will be assessed and recertified at least every three years. Whenever substantive assessments of a graduate faculty member is expected to occur at a COGS meeting, the subject of that review will be informed that such a review will be taking place. The Chair of COGS will solicit, from the individual under review, any relevant information or material that the individual would like COGS to consider in making its deliberations. The Chair of COGS may also solicit relevant information from other individuals, if such input is deemed necessary for a fair review.

2. **Criteria for Appointment and Credentialing of M&I Track Graduate Faculty**

The following are examples of typical contributions that one can make to the Microbiology & Immunology Track that can serve as criteria for admission onto the Track Faculty.

a. Provide a laboratory environment that is academically and intellectually rewarding for the pursuit of the Ph.D. degree. Evidence for this would include the scientific achievements of present and former students.

b. Have an active, quality research program that shows evidence of scholarly activity appropriate to the training of Ph.D. students. This would include publication of significant literature in reputable journals and invited presentations of research at national meetings, symposia and seminars.

c. Demonstrate a record of intermediate/long term funding for a research project(s).
d. Availability and willingness to take on Track teaching responsibilities through major participation in basic and advanced graduate courses.

e. Availability and willingness to participate in Track and student seminar programs, journal clubs, and student qualifying and dissertation exam committees.

f. Availability and willingness to actively assist in recruitment of prospective graduate students

3. Rights of M&I Track Graduate Faculty

Credentialled/mentoring M&I track faculty members have the right to train M&I graduate students and to expect the full academic support of the Committee on Graduate Studies.

4. Responsibilities of M&I Track Graduate Faculty

a. Research Program: Members of the M&I Track Graduate Faculty are expected to maintain an active, high quality research program that is conducive to the training of graduate students.

b. Graduate Student Training: Members of the M&I Track Graduate Faculty are expected to participate actively in the training of the Track’s Graduate Students. Such participation usually includes providing a laboratory environment that is appropriate for the academic and intellectual advancement of graduate students, contributing to Track teaching activities and being involved in Track seminars, journal clubs and supervising committees.

c. Graduate Student Financial Support: Members of the M&I Track Graduate Faculty are expected to provide financial support for Ph.D. students in their laboratories. Therefore, at the time that a student requests entry into the laboratory of a member of the Track Faculty, a Selection of Track and Dissertation Professor Form must be filled out and filed for approval in the GSBS Dean’s office. It is expected that financial support for the entering student will start at the beginning of the student’s second year, and continue until the student has graduated. The level of support will be commensurate with the stipend level for the Ph.D. students in the Graduate School of Biomedical Sciences and is expected to come from research grants or other sources obtained by the faculty member. If a Supervising Professor cannot continue to provide a stipend for a student, the faculty member must give the affected student, the department chair, and the GSBS Dean’s office reasonable notice. If a Ph.D. candidate, for whatever the reason, changes the degree objective to a Master’s degree, the Supervising Professor is no longer obligated to provide financial support, but may do so at his/her discretion.

d. Other: Members of the M&I Track Graduate Faculty are expected to have significant and collegial interactions with other graduate faculty. This interaction could include, but is not limited to, collaborative research efforts, collaborative or interdisciplinary teaching, service on student examination or supervising committees, participation in joint lab-research meetings, or other scholarly joint ventures.
APPENDIX A
M&I TRACK COURSE REQUIREMENTS AND DESCRIPTIONS

COURSES REQUIRED FOR THE PH.D. DEGREE

Students in the M&I Track must take all of the following courses in the semesters indicated. Exemption from a required course is rarely given, and must be approved by both COGS and the course director.

INTD 5000, Fundamentals of Biomedical Sciences (10 credit hours) Required Fall semester, first year.

This course covers the fundamentals of biochemistry, molecular biology, cell biology and organismal and systems biology. The course is designed for first year graduate students matriculating into the integrated, multidisciplinary graduate program.

MICR 5003, Core Concepts in Microbiology & Immunology (4 credit hours) Required Spring semester, first year.

This course provides students with an integrated view of the microbial world and the mammalian immune response. Students receive the foundation necessary for understanding core concepts and experimental approaches in pathogenic microbiology, virology, parasitology, mycology and immunology through directed readings, didactic instruction, and interactive discussion. A special emphasis will be placed on integrating knowledge from each discipline using specific examples to illustrate important concepts in host-pathogen interactions.

MICR 5029, Building Scientific Thinking Skills (2 credit hours) Required Spring semester, first year.

This course provides the opportunity for graduate students to develop critical thinking skills necessary for reading scientific literature, developing/critiquing scientific ideas and grant proposals and effectively communicating one’s own scientific ideas with peers. The course is delivered in three stages. First, students read articles in the areas of Microbiology and Immunology and then give 50 minute oral reports to the class that review the subjects of the articles; following presentations, fellow students and faculty are encouraged to provide critiques and ask questions. Second, students develop mini-proposals on chosen topics that are critiqued by fellow students and faculty members. Finally, each student orally defends his/ her written proposal, including the fielding of questions from fellow students and faculty members. This course is designed to have a long lasting impact on the general development of critical scientific skills, as well as to prepare the student for their upcoming Qualifying Exams.

MICR 5030, Journal Club (0.5 credit hour) Required every Fall and Spring semester every year after first year.

Beginning in a student’s second academic year, attendance at a COGS-approved Journal Club is required. A grade of Satisfactory/Unsatisfactory (S/U) is based on attendance. In addition, in order to receive a “Satisfactory (S)”, a student is expected to present a paper to the group at one of those meetings.
MICR 5090, Acquiring Presentation Skills (1 credit hour) Required every Fall and Spring semester every year after first year.

This course is designed to prepare a student for giving a scientific lecture or seminar. Each student is coached by a faculty member on effective public speaking and on the critical analysis of scientific data. Grading is determined by two factors. First, each student must present one departmental seminar each year, evaluated and graded by a panel of faculty members. A student may be excused from presenting a seminar if the Course Director and COGS agree that the student’s dissertation defense and graduation are imminent (thereby making the APS seminar presentation and dissertation defense seminar effectively redundant). Second, Satisfactory/Unsatisfactory (S/U) grading is dependent on student attendance and participation. That is, receiving an “S” requires that a student attend a certain number of presentations given by the other students in the track (number determined and announced by the Course Director).

INTD 6002, Ethics in Scientific Research (0.5 credit hour) Required Spring semester, first year.

Round table discussions of current issues in scientific ethics.

MICR 6091, Seminars in Microbiology & Immunology (1 credit hour) Required every Fall and Spring semester every year after first year.

Presentations and discussions of recent advances in various areas of Microbiology & Immunology. Invited speakers may be from inside or outside the HSC. A grade of Satisfactory/Unsatisfactory (S/U) is based on attendance.

MICR 6097, Research (credit to be arranged) Required every semester every year after first year.

Independent, original research under the direction of Supervising Professor. It is required that a student meet each Fall semester and each Spring semester with his/her supervising or dissertation committee to discuss research progress.

MICR 7099, Dissertation (credit to be arranged)

Prerequisite: Enrollment for Dissertation credit requires that the Dissertation Research Committee composition and Dissertation Research Proposal have be approved by COGS and the GFC.

Typically, MICR 7099 is taken during Years 4/5 of a student's program of study. Signifies that a student is nearing completion of dissertation research. The number of credit hours taken in a semester should be split between Dissertation (MICR 7099) and Research (MICR 6097). That is, once other required courses (i.e., APS, Journal Club, Seminar) are accounted for at enrollment, approximately 50% of remaining credit hours should be assigned to Dissertation and 50% assigned to Research. Registration for at least two semesters of MICR 7099 is required for Ph.D. candidates.

ELECTIVE COURSES

Students enrolled in the Microbiology & Immunology Ph.D. program must take, usually during their second year of study, at least one advanced course. As it is expected that a student will
consult with his/her Supervising Professor when choosing advanced electives, COGS Form 117
must be filed with COGS at the time of registration for any elective (form posted on COGS
website). Advanced electives given by the M&I Track are listed below. Note that not all courses
are available in all semesters. Elective courses provided by other IMGP tracks may also satisfy
the advanced elective requirement with the approval of the student's Supervising Professor and
the Chair of COGS.

MICR 6022, Advanced Microbial Physiology (2 credit hours)
Prerequisite: Microbial Physiology and consent of instructor. Current concepts and
experimental studies in microbial structure-function relationships and regulatory mechanisms.

MICR 6024, Advanced Microbial Genetics (2 credit hours)
Prerequisites: Molecular Biology or consent of instructor. In depth study of selected areas of
microbial genetics through the presentation and discussion of current literature.

MICR 6043, Advanced Topics in Virology (2 credit hours)
Prerequisites: Introduction to Virology, Biochemistry and consent of instructor. In-depth
study of selected molecular topics from the current literature in virology.

MICR 6052, Advanced Immunobiology (2 credit hours)
Prerequisites: Introduction to Immunology or consent of instructor. An in-depth study of the
immune system and how it is regulated. Presentation and discussion of current literature in these
areas.

SPECIAL TOPIC COURSES

The following courses are available for Ph.D. students when unusual academic circumstances or
need exists.

MICR 5092, Special Problems in Microbiology & Immunology (Credit to be arranged)
Prerequisite: Consent of instructor. Course provides an opportunity for the student to engage in a
special research project or to develop proficiency in the use of certain laboratory methods.

MICR 5091, Special Topics in Microbiology & Immunology (Credit to be arranged)
Prerequisite: Consent of instructor. Students will be given an opportunity to gain in-depth
understanding of selected topics in Microbiology & Immunology through a combination of library
research and discussion with faculty.

MODULAR MICROBIOLOGY & IMMUNOLOGY COURSES

Students outside of the Microbiology & Immunology track may elect to enroll in one of the
following courses which are individual modules of MICR 5003, Core Concepts in Microbiology &
Immunology.
MICR 5025, Eukaryotic Pathogens (1 credit hour)
This course will provide students with a basic comprehensive understanding of parasitology and mycology. The first part of this course will focus on virulence mechanisms and the host immune response with respect to a variety of parasites that cause major human diseases. The second part of this course will cover several important areas of medical mycology including molecular biology, diagnostic/epidemiology, mating/phenotypic switching, morphology, pathogenesis and antifungal therapies.

MICR 5026, Pathogenic Microbiology (1 credit hour)
This is an introductory course in microbial pathogenesis focusing on bacterial pathogens that are important in human disease. Students receive a foundation in the basic concepts and experimental approaches that are crucial for understanding the discipline through directed reading and didactic instruction. Specific concepts, strategies, and mechanisms used by human bacterial pathogens to cause disease are illustrated.

MICR 5027, Immunology (1 credit hour)
This course focuses on fundamental concepts in immunology with emphasis on experimental strategies for elucidating the cellular and molecular mechanisms underlying immune responses. Lecture topics illustrate important concepts in innate immunity, cytokine signaling, antigen recognitions and presentation, the genetics of immune receptors and the major histocompatibility complex, immunity to infection, and immunopathology (e.g. hypersensitivity, autoimmunity, immunodeficiency, etc.).

MICR 5028, Virology (1 credit hour)
This course focuses on the molecular and cellular biology of animal viruses, and their interactions with host cells. Many of the viruses to be covered in this course are medically significant or have provided critical information that has expanded our understanding of cell biology, immunology, development, and differentiation.

**FINAL HOURS**

Once a student has reached a stage in his/her research program, when the dissertation defense and graduation are imminent (usually in the fifth year of study), a student may enroll in Final Hours. Enrolling in Final Hours is not required for graduation, but allows a student the one-time opportunity to register for 3 credits while still maintaining full-time student status, thus reducing tuition costs. It is expected, however, that although a student would not officially enroll in the usual required courses while taking Final Hours, **the student will continue to attend APS, Journal Club, and Seminars in Microbiology & Immunology as prescribed above.** Furthermore, **Final Hours may not be taken more than once**; thus, if a student does not defend and graduate in that semester, he/she must resume enrolling in the standard number of credit hours required of a full-time student.
APPENDIX B
QUALIFYING EXAMINATION PROCESS

Purpose: The examination is designed to determine if the student is capable of scientific problem solving and has acquired sufficient background in Microbiology and Immunology to excel in these disciplines. The examination consists of the oral defense of a Qualifying Examination Proposal that has been prepared by the student and general knowledge questions related to some aspect of the proposal.

Considerations:

1. The test will measure both general knowledge and scientific reasoning.
2. The time at which the exam is administered need not be the same for all students.
3. The exam will be administered by a group of graduate faculty members including several who are likely to serve as members of the student's eventual dissertation committee.
4. Faculty will be "realistic" with regard to their expectations of exam performance in relation to a student's stage of research training.

Mechanics:

1. Timeline

The Qualifying Examination is normally taken during the spring semester of the second year; the student’s Temporary Supervising Committee may recommend when a student is ready to undertake his/her exam. If the committee believes that a student is not ready to take the examination in the spring semester of his/her second year in the program, it must justify this stand to the Committee on Graduate Studies (COGS), which has the authority to insist on an immediate examination if the justification for a delay is not reasonable.

The student is expected to have identified all committee members for the Qualifying Exam Committee (see below for composition) and begin work on formulating the major question of the research problem no later than January 15 of the student’s second year in the program.

2. Membership of the Preliminary Examination Committee

Qualifying Exam Committees will be composed of 5 faculty members drawn from the M&I Track, consisting of:

a. Two members of the student’s temporary supervising committee, one of whom will serve as committee chair.

b. A member of the Graduate Faculty chosen by the student and examination committee chair based on his/her expertise in the area of the examination.

c. Two additional members, are chosen by random lottery from among the remaining members of the M&I track.* The “pool” of potential lottery members is derived from all credentialed faculty in the M&I Track (excluding the student’s Supervising Professor and members of the student’s Temporary Supervising Committee). Faculty members already serving on two preliminary examination committees in the same exam year are excluded from the random drawings for committee service that year. Randomizing exam committee membership likely results in some committee members being unfamiliar with a student’s exam area. This arrangement is viewed as a reflection of real life in the grant review world and is viewed as strength of our exam process.

* It is allowable, for cause acceptable to the Chair of COGS, if the student chooses to exclude one of the lottery-selected faculty members; a replacement selection will be randomly drawn.
The student’s Supervising Professor, although not a member of the examination committee, is expected to attend the examination to advise the committee on how closely the student’s performance in the exam mirrors his/her performance in other academic situations.

3. Qualifying Exam Question

The student is to provide a draft of a research problem to the Chair of the Examining Committee. The document should be no longer than one page in length (references excluded). It should contain two or three paragraphs on the background and significance of the proposed research with selected key references, and then a simply stated question(s) or hypothesis to be addressed. The proposed research problem statement should not contain Specific Aims; those are part of the actual Qualifying Exam proposal (see below). The Chair of the Examination Committee will work with the student until a suitable question has been formulated. Subsequently, the Chair of the Committee will circulate the question to the other members of the Examination Committee for their suggestions and approval. The Examination Committee is ultimately responsible for ensuring that the research question is:

a. Not a topic on which the student is actively performing research although it may be broadly related to the student’s area of interest (e.g., immunology, bacterial physiology, etc.). A written declaration by the student indicating the independence of the exam question from his/her own dissertation project must be attached to the question upon submission to the exam committee and to COGS (see COGS Form 119 posted on COGS website).

b. Narrowly defined so that the student may focus his/her efforts, yet broad enough to require the student to use several research strategies to solve. An appropriate problem would be one that could normally form the basis of a NIH or NSF postdoctoral grant proposal.

c. Current and unsolved.

After being approved by the Qualifying Examination Committee, the proposed exam question is sent by the Chair of the Examination Committee to the Chair of COGS for approval. COGS reviews the research problem to ensure consistency in the “quality” of the research question from student-to-student and returns its recommendation to the Chair of the Examination Committee. Disagreements between COGS and the Examination Committee over the content of the research problem will be resolved by discussion between the Chair of COGS and the Chair of the Examination Committee.

The Chair of the Examination Committee presents the final research problem to the student and briefs the student, in general terms, on what is expected in his/her answer, including the format of the research proposal which is that of a modified federal grant proposal (Appendix C). The proposal is to be submitted via email attachment to the Chair of the Examination Committee no later than three weeks after the student has been notified of its approval by COGS.

4. Qualifying Exam Research Proposal

The Chair of the Examination Committee is to distribute (via email attachment) the student’s research exam proposal to each exam committee member and to the Chair of COGS. If after the Examination Committee determines, usually within ten days, that the proposal is of adequate
quality, the student will consult with the Examining Committee members to schedule a date for the oral examination. However, if the Examination Committee feels that the student’s proposal was of inadequate quality and therefore indefensible, the student will be asked to make appropriate revisions; the revised proposal is due back within two weeks after its return to the student. The examination is normally scheduled within one week of the approval of the Qualifying Exam proposal.

5. **Oral Defense of the Research Proposal**

The Chair of the Examination Committee is to distribute a memo to all members of the MI Track Graduate Faculty inviting them to attend and participate in the oral examination. The Chair of the Examination Committee will officiate at the oral examination, which normally has the following format:

a. The student presents a short (5 to 10 minute) description of the research proposal including parameters of the problem and the rationale used to solve the problem.

b. The Chair of the Committee solicits questions, first from the members of the Examination Committee and then from the assembled faculty. These questions will be directed initially toward the research proposal, but will not be limited to the proposal. The student will be expected to answer general knowledge questions that flow from his presentation/proposal as a demonstration of his/her grasp of basic concepts learned in courses, seminars and from the literature.

c. Upon completion of the oral examination, the student is to be excused from the testing area and those faculty who wish to express their opinions of the student's performance are invited to do so. It is at this time that the student’s Supervising Professor will offer insights related to the exam performance of the examinee in relation to expectations based on laboratory performance. Once comments are collected from non-committee members, they should be dismissed from the testing area so as to allow deliberations by the Exam Committee.

d. In considering its recommendation to pass or fail the student, the Examination Committee will base its evaluation on the student’s preparation and defense of the research proposal, as well as the adequacy of the student's general knowledge associated with aspects of the proposal. The student is expected to bring copies of the **Qualifying Exam Report Form 118** to the exam room (copies for each committee member), and in anticipation of a good outcome, a single copy of **GSBS Form 32** (Advancement to Candidacy). These forms can be found on the COGS website, and should have **all introductory information filled out by the student** prior to the exam.

Determination of whether a student has passed or failed the examination is normally arrived at as a consensus decision among committee members; however, if a consensus cannot be reached, the decision will be made by majority vote of by committee members. This recommendation is delivered to the Chair of COGS on Form 118. The Examination Committee can make one of three recommendations:

1. The student has passed the Qualifying Examination with no restrictions.

2. The student has not adequately passed the Qualifying Examination but shows signs of promise.

In this case, the student will be required to repeat the examination with the same committee and the same proposal. Rarely, the Exam Committee may recommend that the student revise the proposal for the re-examination. The re-examination of the student should normally be completed within three months of the original examination. Failing a re-examination is cause for dismissal.
from the Ph.D. program. A student who has failed the Qualifying Exam may petition COGS for admission to the M.S. degree program.

3. The student has failed the Qualifying Examination and the Examination Committee agrees that the student is not qualified for admission to candidacy for the Ph.D. degree. In this case, COGS will review the student's overall graduate record as soon as possible to determine the student's fate in the program. If COGS does not accept the Qualifying Examination Committee's recommendation and decides to allow the student to take a re-examination, the second examination shall be with a new Examination Committee. If COGS decides that the student should not continue toward the Ph.D., COGS may recommend dismissal from the program or to switch from the Ph.D. to the M.S. degree objective.
APPENDIX C
GUIDELINES FOR PREPARING A QUALIFYING EXAMINATION PROPOSAL

The following outline is a guide for preparing the research proposal for the Ph.D. Qualifying Examination. The format is similar to that required by most grant agencies. The \textbf{MAXIMUM} length of the proposal is \textit{10 single-spaced pages} (excluding title page, abstract, illustrations and references).

\textbf{Title Page} - title; name of candidate; graduate program

\textbf{Abstract} (approx 400 words) – summary of objectives, protocol, and significance of the proposal.

\textbf{Research Plan} - (limit to 10 single-spaced pages):

1. \textbf{Specific Aims} (approximately ½ page) - The overall objective of the proposal should be concisely stated. Present 2-4 related and testable hypotheses (\textit{e.g.}, Specific Aims).

2. \textbf{Background} (approximately 3 pages) - The work of others that led to the main hypothesis should be described, citing the most relevant references. The reader should be provided with a clear rationale for the importance of solving the research problem, along with its potential impact on the present perceptions in the field. Use numbers when citing the literature references.

3. \textbf{Experimental Design} (remaining pages) - Each Specific Aim that is outlined in the first section (above), should have a parallel section in the Experimental Design section. Describe experimental strategies designed to test each hypothesis. When describing methods and analytical procedures, sufficient detail should be provided to allow the reader the opportunity to critically evaluate the methods and the experimental approach chosen. However, lengthy descriptions of methods common to the field (\textit{e.g.}, details concerning the formulation of phosphate-buffered saline, or the performance of SDS-PAGE) should not be included.

4. \textbf{References} - Citations should be numbered consecutively as they are cited in the text, and references should also be arranged in numerical order reflecting when they were cited in the proposal. Use accepted formats that include titles of the references cited. Formatting of all references should be consistent. Use only standard accepted abbreviations for the names of journals.
APPENDIX D
GUIDELINES FOR DOCTORAL STUDENTS PREPARING THE DISSERTATION PROPOSAL

The description of the proposed work should not exceed five double-spaced typewritten pages (excluding references). It should be written using language at a scientific and technical level that would allow any scientist outside the area of expertise to understand the concepts and experimental strategies. Using language comparable to Scientific American is a good guide. The proposal should specify 1) the specific aims, 2) background and hypothesis, and 3) the general methods and techniques to be utilized. Some key preliminary data may be included, but extensive preliminary data is not required. Include key references.

It is expected that the Dissertation Proposal will be distributed to the Dissertation Committee immediately prior to a third-year committee meeting and used as a guide/framework for detailed discussion regarding the student’s research project. It is at that time that the student would request approval to submit the research proposal to the GSBS Dean’s office.
APPENDIX E
GUIDELINES FOR THE FORMATION AND FUNCTIONS OF MI TRACK COMMITTEE ON GRADUATE STUDIES (COGS)

1. **Introduction**

The Committee on Graduate Studies (COGS) for the Microbiology & Immunology (M&I) Track is empowered by the Bylaws of the Graduate Faculty Assembly and the Graduate Faculty Council of the University of Texas Health Science Center at San Antonio to administer the PhD program in Microbiology & Immunology under the school-wide integrated multi-disciplinary graduate program (IMGP). The COGS, consisting of selected members of the M&I track faculty, acts on such matters as curriculum, student admissions, student progress, assignment of Supervising Professors, mediation of disputes between students and Supervising Professors, reviewing qualifications for membership on the track Graduate Faculty, and other pertinent policy considerations.

2. **Membership of COGS**

Six members of the full-time Graduate Faculty with credentialed membership in the M&I Track will constitute the track's COGS. Membership on COGS will be for 3 years, with two committee members rotating off the committee each year. All members of the M&I Track are eligible to serve on COGS. Members will be determined by nomination/election that includes consultation with Track co-directors. Rotation of membership will take into consideration the need to ensure that sufficient mentoring expertise and experience is retained on the committee. The Chair of COGS will be chosen by the members of COGS from among the COGS membership.

3. **The Chair of COGS**

The Chair of COGS is also called the Graduate Advisor and serves as the M&I Track representative to the Graduate Faculty Council (GFC). The Chair of COGS may, without consulting COGS, make certain decisions consistent with established Track policies. Such decisions would include, but are not limited to, the following: advising students on their curricula, approval of student advancement to candidacy and approval of dissertation formats. The Chair of COGS is responsible for monitoring the progress of students, for assigning Research/Academic Progress grades each semester, for advising students on their overall curriculum plans and their compliance with Track guidelines, and for facilitating two-way communications between students and COGS. It is the responsibility of the Chair of COGS to keep the other members of COGS informed about the status of all graduate students and about any Graduate Faculty Council actions that affect the M&I Track.

The following actions, and any other major decisions regarding the graduate track, require a majority vote of COGS members before they can be implemented by the Chair of COGS: Admitting a student into the track, recommending dismissal of a student, granting unprecedented course waivers, approving students' choices of supervising committees and professors, approving the qualifying exam question and committee for each student, waiving any track requirements and establishing new policies.

4. **Conducting the business of COGS**

a. Votes conducted by electronic mail - When necessary and appropriate, the Chair of COGS may conduct a vote of COGS by email. A simple majority of the entire membership is required to pass a motion. Votes that are not returned are considered abstentions unless otherwise stipulated in the email requesting the vote. Decisions typically made by email vote include: Approval of students' supervising committees and professors; approval of qualifying exam questions and committees; approval of dissertation proposals and waiving certain departmental requirements. Any member of COGS who considers an action requires discussion may request a meeting of the committee.
b. COGS Meetings - COGS will meet once a month unless there is insufficient business to justify a meeting.
When necessary and appropriate, the Chair of COGS may call for a meeting of the Committee on Graduate Studies to discuss and/or vote on major issues regarding graduate students or the graduate program. Such issues include, but are not limited to: Student dismissal decisions, removal of individuals from the graduate faculty, major curriculum changes and other substantive changes to the program.

b1) **Rules of Procedure:** Robert’s Rules of Order for small groups shall govern the conduct of COGS meetings.
b2) **Agenda:** Copies of the meeting agenda will be sent to COGS members prior to a meeting. No action will be taken at a COGS meeting unless the item of business was on the published agenda. Exceptions to this requires the unanimous consent of members of COGS present at the meeting.
b3) **Voting:** A quorum of voting COGS members must be present to conduct a meeting. One-half plus one of the Track’s COGS members constitutes a quorum. A motion is considered passed when it is approved by a majority of those COGS members present and voting.
b4) **Minutes:** The Chair of COGS and the recording secretary shall compile and sign the minutes of each COGS meeting. Copies of the minutes will be distributed to the members of COGS within one week of a meeting for revisions and approval. The original copy of the minutes will be filed permanently in the Microbiology & Immunology Track secretary. Following approval of the minutes, copies will be distributed to Graduate Faculty who are members of the Track.
b5) **Guests/openness:** In principle, all COGS meetings are announced and open to all MI Track members. However, to protect the privacy of the students and faculty members being discussed, COGS reserves the right to hold closed door meetings. In addition, the Chair of COGS or COGS may invite faculty members, students or other interested parties to attend a COGS meeting as a guest of COGS. All non-COGS members attending COGS meetings will have the privilege of the floor, but will not have the right to vote. COGS may selectively allow or disallow individuals to attend portions of COGS meetings so that confidential information can be safe-guarded and conflicts of interest can be avoided.

5. **Guidelines for specific decisions that are made by the chair of COGS**

The following sections authorize the Chair of COGS to make certain decisions without consulting COGS and which serve as guidelines in making those decisions.

a. **Approval of Dissertations** - If the Supervising Committee, without dissent, approves a student’s dissertation or thesis and its defense, the Chair of COGS may forward that recommendation (by signing GSBS Forms 41 or 43) to the Dean of the Graduate School without a formal vote of COGS. However, if one or more members of COGS request a formal vote of COGS regarding the awarding of a degree to a particular student, such a vote will be held by the Chair of the COGS prior to signing GSBS Forms 41 or 43. Such a request must be sent to the Chair of COGS, in writing, within one week of the oral defense of the student’s dissertation or thesis.

b. **Assignment of Grades for Research/Academic Progress** - Usually the Chair of COGS shall assign a grade of “S” (Satisfactory) or “in progress”, as appropriate, to each student taking Research, Thesis, Dissertation or Final Hours without consulting the student’s Supervising Professor. However, if any of the most recent Student Evaluation Forms are marked unsatisfactory (“U”) or contain a significant number of negative comments, the Chair of COGS shall contact the Supervising Professor to determine the grade to assign. In addition, the Chair of COGS shall assign
a grade of “I” or “U” for Research, Dissertation, or Thesis if a student has demonstrated inadequate academic progress by failing to adhere to the timeline of expectations for the M&I graduate program.

c. Graduate Faculty Council Decisions - The Chair of COGS, as the M&I Track’s Representative to the Graduate Faculty Council, may make most decisions on Council matters without consulting the other members of COGS. However, if a substantive issue is to be discussed and/or voted on at Graduate Faculty Council, the Chair of COGS shall solicit the input or call for a vote of the membership of COGS. The Chair of COGS shall then vote on the particular Council action following the decision of COGS. Substantive Graduate Faculty Council issues that warrant consideration by the full membership of COGS include, but are not limited to: the institution of new graduate programs, the modification of admission requirements for the graduate school, or the addition of new requirements for current or incoming graduate students.

6. Amending the operating procedures for MI track COGS

Changes to these Operating Procedures may be suggested, in writing, to the Chair of COGS by any Graduate Faculty Member. The suggested amendment shall be considered by COGS following normal procedures for voting. If the amendment is approved by COGS, the Chair of COGS will send an appropriate memo to all members of the MI Graduate Faculty and to the Associate Dean of the Graduate School to inform them of the revision and will amend these Operating Procedures accordingly.
Milestones Agreement

Microbiology, Immunology & Molecular Genetics
Microbiology & Immunology Ph.D. Track Program

This document is provided for the purpose of confirming that a student and the student’s Supervising Professor have been clearly informed that certain programmatic milestones are expected prior to receiving the Ph.D. degree, and that there is an expected timeline to complete these milestones. That is, a student is expected to reach particular milestones within a specified time period in order to demonstrate satisfactory progress through the program. It is also expected that department will make any revisions in this document to accommodate the needs of its program and to its program-specific curriculum. A student who demonstrates unsatisfactory academic progress may lose funding, be placed on academic probation, or be dismissed from the program.

Academic Advising

Upon entering the M&I Track program, the Program Director, or the Director’s appointee, will serve as Graduate Advisor for all students in the program. Once a student is granted approval for entering the laboratory of a credentialed Graduate Faculty member, advising responsibilities will be shared between the Supervising Professor and the Graduate Advisor.

Academic advising includes the following elements that are designed to ensure that students remain in good academic standing and make satisfactory progress through the program. Advisors are responsible for the following:

• Ensure that meetings between the student and supervising committee occur each semester allowing review and reporting of student progress to the Executive Committee, and included in the program’s annual doctoral progress report.
• Ensure that required coursework is completed and provide suggestions with regard to elective course selections.
• Periodically review the student’s Plan of Study to determine if the student is making progress consistent with the expectations of the program; and work with the Program Director, the Supervising Professor, and student to determine if modifications are necessary.
• Present a clear timetable to the student for completing course requirements, examinations, and other requirements.
• Provide the student, when necessary, with clarification regarding the requirements for successful completion of dissertation research, the written dissertation, and defense of dissertation.
• Provide the student with assistance in assembling research, qualifying exam and dissertation committees.
• Provide the student with opportunities and information that will optimize the student’s future career success.
Requirements for all Ph.D. Students in the M&I Track Program
(Details of this Milestones agreement may vary from program-to-program)

Milestone

Complete laboratory rotations and select Program and Supervising Professor

Year 1, Fall semester

Complete required coursework

Year 1, Spring semester

Discuss and complete Student-Mentor Compact and Milestones Agreement with Supervising Professor before the end of the Spring semester of Year 1

Year 1, Spring semester

(review annually)

Appoint Supervising Committee; approved by Program Executive Committee (DEC)

Year 2, Fall semester

Meet with Supervising Committee; evaluation reported to DEC

Year 2, Fall semester

Complete required coursework

(and each semester thereafter)

Complete qualifying exam successfully

Year 2, Spring semester

Complete advanced elective coursework

Years 2-3

Advance to candidacy by submitting required paperwork.

Year 3, Fall semester

Appoint Dissertation Committee; approved by DEC and Graduate Dean by submitting required paperwork

Year 3, Fall semester

Submit dissertation proposal with required paperwork for approval by Dissertation Committee, DEC, and Graduate Dean.

Year 3, Spring semester

Enroll for required 2 semesters of dissertation credit

Year 4-5

Complete dissertation research; dissertation written and successfully defended, and approved by Dissertation Committee

Year 5, Spring Semester

Dissertation accepted by Graduate School

Year 5, Spring Semester

File all paperwork required for graduation

Year 5, Spring Semester

Submit exit survey to Dr. Blake in Graduate Dean’s Office

Year 5, Spring Semester

Degree Completion Checklist for Students

- Maintain active student status by registering for courses every fall and spring semester
- Complete Milestones Agreement Form with your advisor no later than the last class day of the spring semester
- Complete all required organized coursework
- Schedule and successfully complete required qualifying exams
- Form your dissertation committee in consultation with your advisor and dissertation Chair
- Have your committee approved by program COGS and Graduate School
- Prepare and successfully present your dissertation proposal
- Apply for Advancement to Candidacy
- Enroll in required dissertation hours and complete your dissertation
- Successfully complete your defense of your dissertation
- Submit required documentation to the Graduate School for completion and graduation
I have read this form and have had the opportunity to discuss the information contained in it with my advisor. I understand the academic milestones that I am expected to reach in order to successfully complete the M&I Track program, as well as the expected timeline for completing these milestones.

________________________________________
Student’s Signature

________________________________________
Supervising Professor’s Signature

________________________________________
Program Director’s Signature

January 17, 2017
Graduate training entails both formal education in advanced scientific knowledge and theory as well as research training under the supervision of one or more investigators who are qualified to fulfill the responsibilities of a mentor. A positive mentoring relationship between the graduate student and the supervising professor is a vital component of the student’s preparation for a successful biomedical career.

Individuals who pursue a biomedical graduate degree are expected to take responsibility for their own scientific and professional development. Faculty who advise students are expected to fulfill the responsibilities of a mentor, including the provision of scientific training, guidance, instruction in the responsible conduct of research and research ethics, and financial support.

This compact offers a set of guiding principles intended to promote and support the development of a positive mentoring relationship between the graduate student and his/her supervising professor(s). (Ph.D. students only: this compact should also include the completed program-specific individualized Milestone Agreement Form. As mandated by the U.T. System, the individualized Milestone Agreement Form should be in an electronic form consistent with Family Educational Rights and Privacy Act (FERPA) and provided by the program for the purpose of informing students about the milestones that they are expected to reach to earn a Ph.D.)

Within 4 weeks of formally selecting a supervising professor, students should have discussed with their mentor each of the topics listed on pages 2 – 4 and submitted the form to the COGS chair. To tailor an individualized compact best suited for each student and mentor, specific commitments by both the student and the mentor, detailed processes, additions and specifications should either be added in the space below each topic or in an addendum as deemed appropriate.

With their signature, both the mentor and the students confirm that all topics listed have been discussed and they are committed to uphold the principles agreed upon in this individualized compact. Once approved by COGS, the compact will be placed in the student’s file held in the department’s office.

It is understood that various aspects of the student’s pursuit of their degree can change over time and therefore the compact should be reviewed regularly (at least once a year) and modified as needed. The Milestone Agreement Form is to be updated annually.
DEFINING STUDENT AND MENTOR RESPONSIBILITIES AND EXPECTATIONS

Frequency and Methods of Communication between Supervising Professor and Student (How often will student and mentor meet? How should updates or changes in expectations and issues be communicated?)

Research/Training Related and Professional Development of the Student (What is the student’s project? Is there a specific person who will oversee training other than the PI and to what degree will the student assist with other projects in the lab? What constitutes professional development?)

Common Laboratory Responsibilities (Which tasks and duties are shared among all lab members, including the student?)

Notebooks and Data (What is the policy of the laboratory related to the storage of data and laboratory notebooks?)

Work Hours/Attendance in the Laboratory (How many hours per week is the student expected to work in the laboratory?)

Authorship Policies (What is the policy that constitutes authorship in the lab? How is the order of authors determined in a manuscript or abstract?)
Manuscripts expected for Graduation (Are there specific expectations for the number of manuscripts (published, submitted and/or in preparation), and the student's authorship position (e.g., first author on these manuscripts, required for the student to graduate?)

Intellectual Policy Issues: Disclosure, Patent Rights and Publishing Research Discoveries (What is the policy for patents that come out of the student’s work?)

Selection of a Thesis/Dissertation Committee (What is the process for determining the subject of the dissertation and the membership of the dissertation committee?)

Attendance of Professional and Scientific Meetings (Under which conditions can a student travel to a Regional, National, or International scientific meeting? For example, only if the student or student’s work is presenting? Who covers the cost and what will be covered?)

Career and Professional Development / Job Search and Placement / Individualized Career Development Plan (What is the career choice of the student and what arrangements can be made to allow the student to participate in courses, workshops, etc. for their particular interests without compromising their research training?)

Time off for Illness or University Holidays – Vacation Policy (HOP 4.3.5; 4.7.14) (What is the laboratory policy for vacations, holidays, and personal days?)
Conflict Resolution and Student Complaint Policies (refer to Student Catalogues; GSBS website)

Additional Topics

Milestone Agreement Form
(insert the approved Milestone Agreement for the student’s program)
SIGNATURES:

We have discussed all the above topics and made the mutually agreed upon additions, specifications and changes.

We acknowledge our joint intention to re-evaluate the compact, the agreed upon milestones and the degree completion date at least once a year throughout the student’s period of academic standing.

________________________________________
Student’s Name

________________________________________
Signature of Student Date

________________________________________
Supervising Professor’s Name

________________________________________
Signature of Supervising Professor Date

This compact has been adapted from the UT System Health Institutions Compact Between Graduate Students and Their Research Advisors and the AAMC’s Compact Between Biomedical Graduate Students and Their Research Advisors (December 2008).