

MD/PhD Guidelines

The Texas Tech University Health Sciences Center (TTUHSC) Graduate School of Biomedical Sciences and the TTUHSC School of Medicine offer a combined Doctor of Medicine/Doctor of Philosophy (MD/PhD) degree program for eligible students interested in pursuing careers in biomedical research and academic medicine.

The following policies and guidelines have been established for this program:

APPLICATION, INTERVIEW & SELECTION PROCESS: Information about admission requirements is located at <https://www.ttuhsu.edu/medicine/admissions/reqs.aspx>. After applying through the Texas Medical and Dental School Application Service at <https://tmdsas.com>, applicants complete a secondary SOM application at: <https://www.ttuhsu.edu/medicine/admissions/reqs.aspx>

Entry into the MD/PhD program is also possible for traditional MD students enrolled in the TTUHSC SOM as described under Enrollment Options.

Once a student has applied to TMDSAS and completed the secondary application, the selection committees from both schools invite selected applicants for interviews. The MD/PhD interviews are coordinated through the School of Medicine's Admissions Office. The interview is tailored to match the interests of the applicant and will include one or more graduate faculty members, the GSBS Sr. Associate Dean, and/or one current MD/PhD student.

The GSBS faculty who conduct interviews with prospective MD/PhD applicants will complete an evaluation form through the SOM application system. The forms will be used by the Sr. Associate Dean and the MD/PhD selection committee to begin ranking the prospective applicants by the first part of October. The selection criteria will be based on three general categories: academic record, acceptable test scores, and the individual profile which includes, but is not limited to, recommendations, research background, motivation, and interviews. The GSBS Sr. Associate Dean and the SOM Associate Dean for Admissions (or a designated representative) will meet the first part of October determine the rankings and make initial offers. The number of offers will vary depending on the availability of research assistantships.

MD/PhD students enter the GSBS with an undeclared major. Following research lab rotations, each student will select a mentor and graduate concentration within the Biomedical Sciences Graduate Program. Concentrations available within the Biomedical Sciences MD/PhD program include: 1) Biochemistry, Cellular and Molecular Biology; 2) Molecular Biophysics; and 3) Translational Neuroscience & Pharmacology.

CRITERIA FOR ADMISSION: Acceptable MCAT, and/or GRE, and GPA scores are required. Previous research experience and motivation will be key features in the evaluation. The GRE is encouraged of all students applying to the MD/PhD program.

ENROLLMENT OPTIONS: The MD/PhD curriculum is flexible to accommodate the academic needs of the students, such as the need for increased research time. Students commonly enter the program at entry to medical school at TTUHSC after receiving a bachelor's or master's degree. However, students may also enter after 1-2 years in medical school or in pre-doctoral education and training.

To be eligible, traditional TTUHSC medical students must complete at least one year of medical school, demonstrate serious interest in research by completing (at a minimum) a TTUHSC summer medical student research rotation with a favorable letter of recommendation from the research mentor, and successfully fulfill the MD/PhD Program retention criteria (below) for Years 1 and/or 2 of medical school prior to applying.

Additionally, on a case-by-case basis, students successfully completing the MD/MS program may be able to enter the MD/PhD program with the concurrence of the MD/PhD Physician Scientist Operating Committee, MD/PhD Program Selection Committee, Dean of the GSBS, and either the Dean, Associate Dean for Academic Affairs and/or the SOM Associate Dean of Admissions. In these latter cases, adjustments are made in the curricular plan to optimize the approach for the student.

Typically, the pattern for enrollment from bachelor's or master's degree status at entry to medical school is as follows (**Option 1**):

	Summer	Fall	Spring
Year 1	GSBS	SOM	SOM
Year 2	GSBS	SOM	SOM
Year 3	SOM/GSBS	GSBS	GSBS

Students typically arrive in the summer after graduation from college and begin a laboratory rotation in a field close to their prior research or in a field they are seriously considering for their doctoral dissertation. This rotation allows them to adjust to the campus and begin learning about the variety of possibilities for future research. In late July or early August, MD/PhD students matriculate into the medical school and begin their course work. During the summer following the first year of medical school, the student has approximately two months for another laboratory rotation. After completing the second year of medical school, students must take and USMLE Step 1 examination, as outlined in SOM OP 40.04 - Student Promotion.

No more than two weeks after taking the USMLE Step 1, students are required to begin their thesis research. Students who successfully complete the second year of medical school will have completed up to 30 hours of credit that will be applied toward the PhD curriculum. The PhD requirements of the GSBS and the selected concentration will apply. Note: If a student subsequently withdraws from medical school, the first year of PhD coursework will be waived.

(Option 2) Students also have the option to complete a third year of medical school prior to returning to the GSBS. Students returning to the GSBS after their second or third year of medical school must obtain a memo from the SOM releasing them to take courses beginning in the appropriate fall semester.

In consultation with the student and the basic science academic director/advisor, a clinical advisor will be identified, by the end of their second year. The GSBS Sr. Associate Dean will serve as the facilitator of this process. This clinical advisor will be a part of the student's committee; however, s/he will only have voting rights if the clinical advisor also hold a membership within GSBS. . Students are encouraged to arrange shadowing experiences with their clinical mentor throughout their research project to maintain the clinical skills they obtained in the Development of Clinical Skills (DOCS) course. The clinical clerkships will be completed on the campus where the doctoral research project is conducted.

In the third year of the student's doctoral program, students will work intensively on their research project. Most students at the end of the third year or early in the fourth year have completed didactic coursework. The course requirements are determined by the individual concentrations and may vary depending on the area of research. Generally, by the time the coursework is completed, the student is well-established in research with his or her thesis mentor. The length of time that is required to complete the research, as well as write/defend a dissertation can vary. No influence is exerted by the concentration in an attempt to shorten this phase of training. When the students are engaged in their research, they are subject to the same rules and expectations as any other doctoral students within that concentration. In addition to the preparatory work accomplished in the first two years of medical school, students commonly spend three and a half to four years in graduate training. Students may not start clinical rotations until the dissertation has been successfully defended.

RETENTION CRITERIA: Students in the MD/PhD program must maintain:

- SOM grades of Honors or High Pass in at least 2 of 4 didactic blocks from each of the first two years of the curriculum and a grade of Pass in the other blocks. Students in the MD/PhD program must also obtain at least a grade of Pass in Development of Clinical Skills 1 and 2 and any other curricular requirements. In the event that the SOM changes to a pass/fail grading system, the students in the MD/PhD program must Pass all curriculum blocks.
- GSBS grades of B or better in each course
- GSBS cumulative GPA of 3.5 or better

Any student who fails to maintain the standards described above during Year 1 of the medical school curriculum will meet with the GSBS Sr. Associate Dean and the SOM Associate Dean for Academic Affairs. These program co-chairs will determine the appropriate course of action, which may result in the student being placed on academic probation. Should a student who is on academic probation after Year 1 fail to maintain MD/PhD program standards in Year 2 of the medical school curriculum, a recommendation from the Program Co-Chairs will be submitted to the GSBS Dean that the student be dismissed from the MD/PhD program.

Any student who fails to obtain a passing score in USMLE Step 1 may be dismissed from the MD/PhD program and will fall under guidelines for Step 1 failure published in the TTUHSC SOM Student Handbook.

The requirements to maintain status in the MD/PhD program are at a higher level than those for retention in either the School of Medicine or the Graduate School of Biomedical Sciences. The student may withdraw from one or the other of the two schools and, with consent of the Dean of the school, continue in the school of their choice if they continue to meet that school's standards of performance and conduct. Any student who withdraws from the PhD component of the program must apply for early reinstatement to medical school through the Senior Associate Dean for Academic Affairs. Any MD/PhD student who withdraws or is dismissed from the School of Medicine for any reason will be automatically dismissed from the MD/PhD program. Dismissal from the combined degree program, or voluntary withdrawal, shall result in discontinuance of the student's research assistantship and scholarships.

FUNDING: All MD/PhD students receive full tuition and financial support throughout their training, contingent on continued academic progress. Financial support consists of scholarships while in the SOM and a Research Assistantship while in GSBS. Students receiving a Research Assistantship are considered employees at the Texas Tech University Health Sciences Center (50% FTE) and qualify for in-state tuition, fee waivers and options for health and dental insurance benefits. Research Assistantship positions do not accrue sick leave or vacation. As an employee, the Texas Education Code (Sec. 54.065) allows for in-state tuition for non-residents. While completing the doctoral program, GSBS and the mentor share equally in funding the RA position.

** When students complete their doctoral degree, they return to scholarship support from the SOM. The research assistantship will be discontinued and students are no longer eligible for health and dental options as an employee.

THE MD/PHD PHYSICIAN SCIENTIST OPERATING COMMITTEE consists of the GSBS Dean, the GSBS Sr. Associate Dean, the SOM Dean, and the SOM Associate Dean for Admissions (or a designee named by the SOM Dean). In addition, the following members will be appointed in January by the GSBS Dean to serve 3-year terms. These appointments will be staggered to provide for continuity of the committee's work:

- Representatives from the faculty of the clinical departments of the School of Medicine (2);
- Graduate faculty representatives from the GSBS doctoral concentrations (2); and
- Two MD/PhD students.

Co-Chairs (SOM and GSBS) will provide oversight of this committee as appointed by their respective Deans. The faculty members will be selected because of their experience with the MD/PhD program and their expertise in certain scientific areas. Student participation serves to bring the perspective of the students to the deliberations of this body and, in turn, is helpful in the career training of the students. The students will be full voting members. The SOM Director of Admissions and the GSBS Assistant Dean will also serve on the committee as non-voting members.

The Physician Scientist Committee has a number of critical responsibilities:

1. The members serve as liaisons to academic departments or interdisciplinary programs;
2. It reviews and advises on guidelines and general management decisions;
3. The members are available as advisors to the students;
4. The members may serve in an advisory function to individual students or sometimes as active intermediaries in the event an issue arises; and
5. A representative from the committee will conduct exit interviews for students withdrawing from the program.

STUDENT EVALUATION SUBCOMMITTEE: In June each year, the GSBS Sr. Associate Dean will facilitate annual reviews for each student in collaboration with the following individuals: (1) MD/PhD student, (2) student's major advisor, (3) concentration Graduate Advisor, (4) SOM Associate Dean for Student Affairs, and (5) SOM Assistant Dean for Student Affairs. A standardized form (Attachment A) is used to summarize grades for the term and provide an overview of key factors which may impact a student's progress in the program, such as student motivation, initiative, participation, and overall level of scholarship/research aptitude. The committee also advises on future program components and timelines. The Sr. Associate Dean will report to the Physician Scientist Committee in June of every year on the progress of the students.

DIPLOMA: Upon completion of the PhD requirements, MD/PhD students will receive their PhD diploma at the next designated graduation date (May, August, or December). Students are encouraged to attend the GSBS commencement ceremony. Graduates in August, December and May are all recognized at one ceremony held in May of every year. MD/PhD students will attend the SOM commencement upon completion of the medical degree, at which time they will receive special recognition.

The School of Medicine and the Graduate School of Biomedical Sciences reserve the right to make changes in the MD/PhD program in alignment with state requirements, program accrediting bodies, and institutional accreditation standards. Changes in policies and procedures will not be altered retrospectively and thus matriculated students will complete the MD/PhD program according to requirements in effect at the time of admission.

Revised and amended: July 2000, May 2008, April 2010, October 2011, September 2014, June 2016, May 2019.



MD/PhD Annual Review

Students Name:

Program:

Matriculation:

Date of Evaluation:

Present at Evaluation:

Qualifying Exam:

Admission to Candidacy:

R Number:

Grades

Date	Course Number	Course Name	Grade	Credit
	MSCI 5060	Clinical Oriented Anatomy	XX	9

COMMENTS (INCLUDE STUDENT'S MOTIVATION, INITIATIVE, PARTICIPATION, OVERALL LEVEL OF SCHOLARSHIP AND RESEARCH APTITUDE):

Student's progress is satisfactory Yes No (If no, suggested remedy:)

- xc: Student
- Department
- Major Advisor
- Associate Dean for Educational Programs - SOM
- Dean, Graduate School of Biomedical Sciences