

# DOCTOR OF MEDICINE AND DOCTOR OF PHILOSOPHY COMBINED DEGREE PROGRAM

The School of Medicine offers a combined training program leading to both MD and PhD degrees. The purpose of this program is to provide research training for highly motivated medical students planning careers in academic medicine.

To accomplish this, our program integrates the studies and requirements for both the MD and PhD degrees, providing students with many opportunities to relate their study of clinical medicine with basic biomedical science. Such training produces medical scientists with unique insights into human disease processes.

The MD/PhD program typically requires seven to nine years to complete the combined degree requirements. The program is flexible in many ways and is designed to meet the individual educational needs of the student. Students entering the program are enrolled in the summer semester five weeks prior to medical school orientation. During this semester, students complete six credit hours of graduate research and, in consultation with the Program Director, a self-selected five-week rotation in a research lab. This rotation introduces students to the laboratories and potential research advisors.

Throughout the training, all MD/PhD students are required to participate in MSCI 620/920 (The Scientific Basis of Medicine). This course, which grew out of the MD/PhD Journal Club, reviews recent papers in the medical literature and utilizes a group setting to further develop critical analysis skills as well as facilitate interaction and dialogue between peers and MD/PhD trained faculty. In addition, students are encouraged to attend at least one research seminar per week to assist in identifying a major discipline area for graduate training.

Lastly, this program is dedicated to developing outstanding physician-scientists who excel in their field and are competitive at the national level. The curriculum is designed to meet the individual educational needs of students while promoting excellence. To this end, MD/PhD students have two options for completing their training:

## Option 1

Students follow the medical school curriculum and cover the basic medical sciences during their pre-clinical training period which extends through December of their second year. Next, students begin their PhD training. During this period, students:

- Complete a second research rotation;
- Select a PhD advisor;
- Finish required coursework, including electives in their specialized discipline area; and
- Finalize a meritorious research project and publish their work as well as write, and defend their dissertation.

After completing the PhD requirements, students finish their clinical clerkships and the fourth year of medical school.

## Option 2

Students complete medical school basic sciences courses and clinical clerkships prior to their PhD training. After completing their clinical clerkships, students complete a second research rotation and begin their formal PhD training:

- Select a PhD advisor;
- Complete coursework requirements including electives in their specialized discipline area; and
- Finalize a meritorious research project and publish their work as well as write and defend their dissertation.

Following their dissertation defense, students complete their fourth year of medical school.

For both options the PhD and MD degrees are awarded after the requirements for both degrees have been fulfilled.

## Program Requirements

### Program Requirements

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## Student's Advisory Committee

After receiving admission to graduate studies and enrolling, the student will consult with the head of his or her major or administrative department (or chair of the intercollegiate faculty) concerning appointment of the chair of the advisory committee. The student's advisory committee will consist of no fewer than four members of the graduate faculty representative of the student's several fields of study and research, where the chair or co-chair must be from the student's department (or intercollegiate faculty, if applicable), and at least one or more of the members must have an appointment to a department other than the student's major department and at least one member must be a member of the MD/PhD Program Steering Committee. The outside member for a student in an interdisciplinary degree program must be from a department different from the chair of the student's committee.

The chair, in consultation with the student, will select the remainder of the advisory committee. Only graduate faculty members located on Texas A&M University campuses may serve as chair of a student's advisory committee. Other Texas A&M University graduate faculty members located off-campus may serve as a member or co-chair (but not chair), with a member as the chair.

If the chair of a student's advisory committee voluntarily leaves the University and the student wants the chair to continue to serve in this role, the student is responsible for securing a current member of the University Graduate Faculty, from her/his academic program and located on the respective Texas A&M University campus, to serve as the co-chair of the committee. If the committee chair is on an approved leave of absence, s/he can remain as chair without a co-chair for up to one year with written approval of the Department Head or chair of the

intercollegiate faculty. Extensions beyond the one year period can be granted with additional approval of the Dean.

The committee members' signatures on the degree plan indicate their willingness to accept the responsibility for guiding and directing the entire academic program of the student and for initiating all academic actions concerning the student. Although individual committee members may be replaced by petition for valid reasons, a committee cannot resign en masse. The chair of the committee, who usually has immediate supervision of the student's research and dissertation or record of study, has the responsibility for calling all meetings of the committee. The duties of the committee include responsibility for the proposed degree plan, the research proposal, the preliminary examination, the dissertation or record of study and the final examination. In addition, the committee, as a group and as individual members, is responsible for counseling the student on academic matters, and, in the case of academic deficiency, initiating recommendations to the Graduate and Professional School.

## Degree Plan

The student's advisory committee will evaluate the student's previous education and degree objectives. The committee, in consultation with the student, will develop a proposed degree plan and outline a research problem which, when completed, as indicated by the dissertation, will constitute the basic requirements for the degree. The degree plan must be filed with the Graduate and Professional School prior to the deadline imposed by the student's college and no later than 90 days prior to the preliminary examination.

This proposed degree plan should be submitted through the online Document Processing Submission System located on the website <https://ogsdps.tamu.edu> (<https://ogsdps.tamu.edu/>). A minimum of 64 hours is required on the degree plan for the Doctor of Philosophy for a student who has completed a master's degree. A student who has completed a DDS/DMD, DVM or a MD at a U.S. institution is also required to complete a minimum of 64 hours. A student who has completed a baccalaureate degree but not a master's degree will be required to complete a 96-hour degree plan. Completion of a DDS/DMD, DVM or MD degree at a foreign institution requires completion of a minimum of 96 hours for the Doctor of Philosophy. A field of study may be primarily in one department or in a combination of departments. A degree plan must carry a reasonable amount of 691 (Research).

Additional coursework may be added by petition to the approved degree plan by the student's advisory committee if it is deemed necessary to correct deficiencies in the student's academic preparation. No changes can be made to the degree plan once the student's Request for Final Examination or Request for Final Examination Exemption is approved by the Graduate and Professional School.

Approval to enroll in any professional course (900-level) should be obtained from the head of the department (or Chair of the intercollegiate faculty, if applicable) in which the course will be offered before including such a course on a degree plan.

No credit may be obtained by correspondence study, by extension or for any course of fewer than three weeks duration.

For non-distance degree programs, no more than four courses may be taken by distance education without approval of GPS and no more than 50 percent of the non-research credit hours required for the program may be completed through distance education courses.

To receive a graduate degree from Texas A&M University, students must earn one-third or more of the credits through the institution's own direct instruction. This limitation also applies to joint degree programs.

## Transfer of Credit

Courses for which transfer credits are sought must have been completed with a grade of B or greater and must be approved by the student's advisory committee and the Graduate and Professional School. These courses must not have been used previously for another degree. Except for officially approved cooperative doctoral programs, credit for thesis or dissertation research or the equivalent is not transferable. Credit for "internship" coursework in any form is not transferable. Courses taken in residence at an accredited U.S. institution or approved international institution with a final grade of B or greater will be considered for transfer credit if, at the time the courses were completed, the courses would be accepted for credit toward a similar degree for a student in degree-seeking status at the host institution. Credit for coursework taken by extension is not transferable. Coursework in which no formal grades are given or in which grades other than letter grades (A or B) are earned (for example, CR, P, S, U, H, etc.) is not accepted for transfer credit. Credit for coursework submitted for transfer from any college or university must be shown in semester credit hours, or equated to semester credit hours.

Courses used toward a degree at another institution may not be applied for graduate credit. If the course to be transferred was taken prior to the conferral of a degree at the transfer institution, a letter from the Registrar at that institution stating that the course was not applied for credit toward the degree must be submitted to the Graduate and Professional School.

Grades for courses completed at other institutions are not included in computing the GPA. An official transcript from the university at which transfer courses are taken must be sent directly to the Office of Admissions.

## Research Proposal

The general field of research to be used for the dissertation should be agreed on by the student and the advisory committee at their first meeting, as a basis for selecting the proper courses to support the proposed research.

As soon thereafter as the research project can be outlined in reasonable detail, the dissertation research proposal should be completed. The research proposal should be approved at a meeting of the student's advisory committee, at which time the feasibility of the proposed research and the adequacy of available facilities should be reviewed. The approved proposal, signed by all members of the student's advisory committee, the head of the student's major department (or chair of the intercollegiate faculty, if applicable), must be submitted to the Graduate and Professional School at least 20 working days prior to the submission of the Request for the Final Examination.

Compliance issues must be addressed if a graduate student is performing research involving human subjects, animals, infectious biohazards and recombinant DNA. A student involved in these types of research should check with the Office of Research Compliance and Biosafety at (979) 458-1467 to address questions about all research compliance responsibilities. Additional information can also be obtained on the website <http://rcb.tamu.edu> (<http://rcb.tamu.edu/>).

## Examination

### Preliminary Examination

The student's major department (or chair of the intercollegiate faculty, if applicable) and his or her advisory committee may require qualifying, cumulative or other types of examinations at any time deemed desirable. These examinations are entirely at the discretion of the department and the student's advisory committee.

The preliminary examination is required. The preliminary examination for a doctoral student shall be given no earlier than a date at which the student is within 6 credit hours of completion of the formal coursework on the degree plan (i.e., all coursework on the degree plan except 681, 684, 690, 691 and 692 courses). The student is strongly encouraged to complete the Preliminary Examination no later than the end of the semester following the completion of the formal coursework on the degree plan. The Graduate and Professional School must receive the results of the preliminary examination at least 14 weeks prior to the final examination date. The examination shall be oral and written unless otherwise recommended by the student's advisory committee and approved by the Graduate and Professional School. The written part of the examination will cover all fields of study included in the student's degree plan. Each member of the advisory committee is responsible for administering a written examination in his or her particular field, unless he or she chooses to waive participation in this part of the examination. Two or more members of the advisory committee may give a joint written examination. One or more members may require a student to take a departmental or intercollegiate faculty examination to supplement or replace a written examination. Each written examination must be completed and reported as satisfactory to the chair of the advisory committee before the oral portion of the examination may be held. In case any written examination is reported unsatisfactory, the entire advisory committee must agree

1. to proceed with the oral portion of the preliminary examination, or
2. to adopt another course of action regarding the unsatisfactory written examination.

Prior to scheduling the preliminary examination with the other committee members, the committee chair will review with the student eligibility criteria, using the Preliminary Examination Checklist to ensure the student is ready for the examination. The following list of eligibility requirements applies.

- Student is registered at Texas A&M University for the semester or summer term during which any portion of the preliminary examination may fall. If the entire examination falls between semesters, then the student must be registered for the term immediately preceding the examination.
- An approved degree plan was on file with the Graduate and Professional School at least 90 days prior to the first written examination.
- Student's cumulative GPA is at least 3.000.
- Student's degree plan GPA is at least 3.000.
- All committee members have scheduled or waived the written portion and agreed to attend the oral portion of the examination or have found a substitute. Only one substitution is allowed and it cannot be for the committee chair.
- At the end of the semester in which the exam is given, there are no more than 6 hours of coursework remaining on the degree plan (except 681, 684, 690, 691 and 692). The head of the student's

department (or Chair of the Intercollegiate Faculty, if applicable) has the authority to approve a waiver of this criterion.

- The time span from the first written examination to the oral is no more than three weeks. (In cases of department-wide written examinations, this criterion is not applicable.) The head of the student's department (or chair of the intercollegiate faculty, if applicable) has the authority to approve a waiver of this criterion.

Once all requirements are met, departments or interdisciplinary degree programs may announce the schedule of the written and oral parts of the examination.

Credit for the preliminary examination is not transferable. If a departmental or intercollegiate faculty examination is used as part of the written portion of the preliminary examination, it must be the last examination offered prior to the date scheduled for the preliminary examination. In the schedule of the written portion, all members of the student's advisory committee are to be included.

Through the preliminary examination, the student's advisory committee should satisfy itself that the student has demonstrated the following qualifications:

1. a mastery of the subject matter of all fields in the program;
2. an adequate knowledge of the literature in these fields and an ability to carry out bibliographical research.

In case a student is required to take, as a part of the written portion of a preliminary examination, an examination administered by a department or intercollegiate faculty, the department or intercollegiate faculty must:

1. offer the examination at least once every six months. The departmental or interdisciplinary degree program examination should be announced at least 30 days prior to the scheduled examination date.
2. assume the responsibility for marking the examination satisfactory or unsatisfactory, or otherwise graded, and in the case of unsatisfactory, stating specifically the reasons for such a mark.
3. forward the marked examination to the chair of the student's advisory committee within one week after the examination.

The chair of the student's advisory committee is responsible for making all written examinations available to the members of the advisory committee at or before the oral portion of the examination. A positive vote by all members of the graduate committee with at most one dissension is required to pass a student on his or her exam. A department or interdisciplinary degree program can have a stricter requirement provided there is consistency within all degree programs within a department or interdisciplinary program.

The chair of the advisory committee will promptly report the results of the Preliminary Examination to the Graduate and Professional School, using the Report of Doctoral Preliminary Examination form and the Preliminary Examination checklist. Both forms must have the appropriate signatures. These forms should be submitted to the Graduate and Professional School within 10 working days of the scheduled examination.

Exam results must be submitted with original signatures of only the committee members approved by the Graduate and Professional School. If an approved committee member substitution (1 only) has been made, his/her signature must also be submitted to the Graduate and Professional School. The original signature of the department head is also required for results for the preliminary examination.

After passing the required preliminary oral and written examinations for the doctoral degree, the student must complete the final examination for the degree within four calendar years. Otherwise, the student will be required to repeat the preliminary examination.

Upon approval of the student's advisory committee, with no more than one member dissenting, and the approval by the Graduate and Professional School, a student who has failed the preliminary examination may be given one re-examination, when adequate time has been given to permit the student to address the inadequacies emerging from the first examination (normally six months). The student and the advisory committee should jointly negotiate a mutually acceptable date for this purpose.

A student must be registered at Texas A&M University for a minimum of one semester credit hour in the semester or summer term in which they will take any portion of the Preliminary Examination.

### Steps for Completing the Preliminary Examination

Step	Instruction	Details
1	Establish advisory committee. Submit a degree plan.	<b>When:</b> Prior to the deadline set by the student's college, and no later than 90 days prior to preliminary examination. <b>Approved by:</b> Advisory committee, department or intercollegiate faculty chair, and Graduate and Professional School (GPS).
2	Complete English language proficiency requirements (if applicable), and coursework detailed on degree plan.	<b>When:</b> Before preliminary examination.
3	Student and chair review eligibility requirements for the preliminary exam using the "Preliminary Examination Checklist".	<b>When:</b> Several weeks before the proposed date of the preliminary examination. Checklist must be signed by chair and department head, or intercollegiate faculty chair.
4	Student checks the availability of committee members.	<b>When:</b> Several weeks before the proposed date of the preliminary examination.
5	Students prepares and submits any petitions found necessary by the review of the eligibility requirements.	<b>When:</b> At least three weeks before the proposed date of the preliminary examinations. <b>Approved by:</b> Advisory committee, department head or intercollegiate faculty chair, and GPS.

6	When exam date is determined, the department may announce the schedule.	<b>Approved by:</b> Committee chair, department head or intercollegiate faculty chair.
7	Chair submits the Report of the Preliminary Examination and the Preliminary Examination Checklist to GPS.	<b>When:</b> Within 10 working days of the date of the scheduled oral examination and no later than 14 weeks prior to the final defense date. <b>Approved by:</b> Advisory committee.
8	Graduate and Professional School notifies the student and chair of any actions necessary to rectify any deficiencies.	<b>When:</b> Upon receipt of the report of the doctoral Preliminary Examination.

### Final Examination/Dissertation Defense

The candidate for the doctoral degree must pass a final examination by deadline dates announced in the "Graduate and Professional School Calendar" each semester or summer term. The doctoral student is allowed only one opportunity to take the final examination. No student may be given a final examination unless his or her current official cumulative and degree plan GPAs are 3.000 or better and he or she has been admitted to candidacy. No unabsolved grades of D, F, or U for any course can be listed on the degree plan. To absolve a deficient grade, a student must repeat the course and achieve a grade of C or better. A student must have completed all coursework on his or her degree plan with the exception of 691 (Research) or 692 (Professional Study) hours. The student must be registered for all remaining hours; no hours remain to be taken on the degree plan. The preliminary examination results must have been submitted to the Graduate and Professional School 14 weeks prior to the date of the defense. The research proposal must have been submitted to the Graduate and Professional School 25 working days prior to the date of the final examination/defense. Any changes to the degree plan must be approved by the Graduate and Professional School prior to the approval of the final examination. The request to hold and announce the final examination must be submitted to the Graduate and Professional School a minimum of 10 working days in advance of the scheduled date. Examinations/Defenses that are not completed and reported as satisfactory to the Graduate and Professional School within 10 working days of the scheduled examination/defense date will be recorded as failures. The Graduate and Professional School must be notified in writing of any cancellations.

The student's advisory committee will conduct this examination. The final examination is not to be administered until the dissertation or record of study is available in substantially final form to the student's advisory committee, and all concerned have had adequate time to review the document. Additionally, all English Language Proficiency requirements must be satisfied prior to scheduling the examination. Whereas the final examination may cover the broad field of the candidate's training, it is presumed that the major portion of the time will be devoted to the dissertation and closely allied topics. Persons other than members of the graduate faculty may, with mutual consent of the candidate and the major professor, be invited to attend a final examination for an advanced degree. A positive vote by all members of the graduate committee with at most one dissension is required to pass a student on his or her exam. A

department can have a stricter requirement provided there is consistency within all degree programs within a department. Upon completion of the questioning of the candidate, all visitors must excuse themselves from the proceedings.

The advisory committee will submit its recommendations on the appropriate Report of the Final Examination for Doctoral Candidates form to the Graduate and Professional School regarding acceptability of the candidate for the doctoral degree. A student must be registered in the University in the semester or summer term in which the final examination is taken.

Exam results must be submitted with original signatures of only the committee members approved by the Graduate and Professional School. If an approved committee member substitution (1 only) has been made, his/her signature must also be submitted to the Graduate and Professional School.

## Dissertation

MD/PhD students must submit their final corrected and committee approved dissertation to the Graduate and Professional School no later than the published deadline during their last semester – after which both the MD and PhD degrees will be conferred.

## Additional Requirements

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## Residence

A student who enters the doctoral degree program with a baccalaureate degree must spend one academic year plus one semester in resident study at Texas A&M University. A student who holds master's degree when he/she enters doctoral degree program must spend one academic year in resident study. One academic year may include two adjacent regular semesters or one regular semester and one adjacent 10-week summer semester. The third semester is not required to be adjacent to the one year. Enrollment for each semester must be a minimum of 9 credit hours each to satisfy the residence requirement.

To satisfy the residence requirement, the student must complete a minimum of 9 credit hours per semester or 10-week summer semester in resident study at Texas A&M University for the required period. A student who enters a doctoral degree program with a baccalaureate degree may fulfill residence requirements in excess of one academic year (18 credit hours) by registration during summer sessions or by completion of a less-than-full course load (in this context a full course load is considered 9 credit hours per semester).

Students who are employed full-time while completing their degree may fulfill total residence requirements by completion of less-than-full time course loads each semester. In order to be considered for this, the student is required to submit a Petition for Waivers and Exceptions along with verification of his/her employment to the Graduate and Professional School. An employee should submit verification of his/her employment at the time he/she submits the degree plan.

See Residence Requirements (<http://catalog.tamu.edu/graduate/academic-expectations-general-degree-requirements/#degreerequirementstext>).

## Time Limit

Students in the combined PhD/MD program must clear their dissertation no later than 2 years after the final examination or within the 10 year time limit whichever occurs first.

## Continuous Registration

A student in a program leading to a Doctor of Philosophy who has completed all coursework on his/her degree plan other than 691 (Research) are required to be in continuous registration until all requirements for the degree have been completed. See Continuous Registration Requirements (<http://catalog.tamu.edu/graduate/academic-expectations-general-degree-requirements/#registrationandacademicstatustext>).

## Admission to Candidacy

To be admitted to candidacy for a doctoral degree, a student must have:

- a. completed all formal coursework on the degree plan with the exception of any remaining 681, 684, 690 and 691,
- b. a 3.0 Graduate GPA and a Degree Plan GPA of at least 3.0 with no grade lower than C in any course on the degree plan,
- c. passed the preliminary examination (written and oral portions),
- d. submitted an approved dissertation proposal,
- e. met the residence requirements.

The final examination will not be authorized for any doctoral student who has not been admitted to candidacy.

## 99-Hour Cap on Doctoral Degrees

In Texas, public colleges and universities are funded by the state according to the number of students enrolled. In accordance with legislation passed by the Texas Legislature, the number of hours for which state universities may receive subvention funding at the doctoral rate for any individual is limited to 99 hours. Texas A&M and other universities will not receive subvention for hours in excess of the limit.

Institutions of higher education are allowed to charge the equivalent of non-resident tuition to a resident doctoral student who has enrolled in 100 or more semester credit hours of doctoral coursework.

Doctoral students at Texas A&M have seven years to complete their degree before being charged out-of-state tuition. A doctoral student who, after seven years of study, has accumulated 100 or more doctoral hours will be charged tuition at a rate equivalent to out-of-state tuition. Please note that the tuition increases will apply to Texas residents as well as students from other states and countries who are currently charged tuition at the resident rate. This includes those doctoral students who hold GAT, GANT, and GAR appointments or recipients of competitive fellowships who receive more than \$1,000 per semester. Doctoral students who have not accumulated 100 hours after seven years of study are eligible to pay in-state tuition if otherwise eligible.

Doctoral students who exceed the credit limit will receive notification from the Graduate and Professional School during the semester in which they are enrolled and exceeding the limit in their current degree program. The notification will explain that the State of Texas does not provide funding for any additional hours in which a student is enrolled in excess of 99 hours. Texas A&M University will recover the lost funds by requiring students in excess of 99 hours to pay tuition at the non-funded, non-

resident rate. This non-funded, non-resident tuition rate status will be updated for the following semester and in all subsequent semesters until receipt of a doctoral degree. Please see the Tuition Calculator (<https://tuition.tamu.edu/>) at the non-resident rate for an example of potential charges.

The following majors are exempt from the 99-Hour Cap on Doctoral Degrees and have a limit of 130 doctoral hours:

- Biochemistry
- Biomedical Sciences
- Clinical Psychology
- Counseling Psychology
- Epidemiology and Environmental Health
- Genetics and Genomics
- Health Services Research
- Medical Sciences
- Microbiology
- Neurosciences (School of Medicine)
- Nutrition
- Oral and Craniofacial Biomedical Sciences
- Pharmaceutical Sciences
- Public Health Sciences
- School Psychology
- Toxicology

## Languages

A student is required to possess a competent command of English. For English language proficiency requirements, see the Admissions section of this catalog. The doctoral (PhD) foreign language requirement at Texas A&M University is a departmental option, to be administered and monitored by the individual departments of academic instruction.

## Application for Degree

The MD and PhD degree are conferred in the same semester.

For information on applying for your degree, please visit the Graduation (<http://catalog.tamu.edu/graduate/academic-expectations-general-degree-requirements/#degreerequirementstext>) section.