

MASTER OF BIOTECHNOLOGY IN BIOTECHNOLOGY

The Master of Biotechnology (MBIOT) is designed for a student who wants professional graduate training with an industry orientation in the life sciences. It is intended to emphasize the use of problem solving and technical skills in the life sciences.

The Master of Biotechnology degree program is non-thesis, interdisciplinary and jointly administered by multiple colleges (Agriculture and Life Sciences, Arts and Sciences, Engineering, Mays Business School, Veterinary Medicine and Biomedical Sciences). Program administration includes a Program Chair and Faculty of Biotechnology. This program is one of a select few nationally that is designed to cut across the business and life science disciplines to better prepare a student for the variety of career pathways associated with the life science industries.

For more information, visit the Master of Biotechnology Program website (<http://mbiot.tamu.edu/>).

Program Requirements

Program Requirements

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Student's Advisory Committee

After receiving admission to graduate studies, students will consult with the graduate program concerning selection of a chair and members (if applicable) for an advisory committee representative of the student's field(s) of study and research.

The student's advisory committee for the master's degree will consist of no fewer than three members (more than one department must be represented by the members of the advisory committee). The committee chair or co-chair of the advisory committee must be a member of the Intercollegiate Faculty of Biotechnology and at least one or more of the members must have graduate faculty membership through another academic program.

Only members of the Graduate Committee Faculty located on Texas A&M University campuses may serve as chair of a student's advisory committee. Other members of the Graduate Committee Faculty – including those located outside the university or off-campus (if permitted by program, department, and college/school policy) – may serve as a co-chair or member.

The advisory committee as a group – and as individual members – are responsible for advising the student on academic matters. The duties include responsibility for approving the student's proposed degree plan; research proposal (if applicable); thesis, dissertation, or record of study (if applicable); and conducting examinations (if required). The advisory committee members' approval of a degree plan indicates 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. Additionally, in the case of academic deficiency, the advisory

committee is responsible for initiating recommendations to the Graduate and Professional School.

The chair of the advisory committee, who usually has immediate supervision of the student's degree program, has the responsibility for calling meetings at any time considered desirable.

If the chair of the student's advisory committee is unavailable for an extended period of time in any academic period during which the student is involved in activities relating to an internship, thesis or professional paper – and is registered for courses such as 684, 691, 692, or 693 – the Department Head or intercollegiate faculty Chair may appoint an alternate advisory committee chair during the interim period.

If the chair of a student's advisory committee is on an approved leave of absence – and the student is near completion of the degree and wants the chair to continue to serve in this role – a written request must be submitted to the Associate Provost and Dean of the Graduate and Professional School, by the Department Head or intercollegiate faculty Chair, that the faculty member who is on an approved leave of absence be allowed to continue to serve as chair of the advisory committee – without a co-chair – for up to one year. The request must confirm that the faculty member is able to engage in the required duties as chair during the leave of absence. Extensions beyond the one-year period (if necessary) may be granted with additional approval of the Associate Provost and Dean of the Graduate and Professional School.

If the chair of a student's advisory committee voluntarily separates from the university, and the student is nearing completion of the degree, the chair may continue to serve in this role – at the student's request – for up to one year. Two options are available:

- The chair may continue, with a co-chair, without additional approval by the Graduate and Professional School. The student must select a current member of the Graduate Committee Faculty – from the student's academic program and located near the Texas A&M University campus site – to serve as co-chair of the advisory committee.
- The chair may continue, without a co-chair, with approval by the Graduate and Professional School. A written request must be submitted to the Associate Provost and Dean of the Graduate and Professional School by the Department Head or intercollegiate faculty Chair to allow the faculty member to continue as chair, without a co-chair, of the advisory committee.

For both options, extensions beyond the one-year period (if necessary) may be granted with approval of the Associate Provost and Dean of the Graduate and Professional School.

Although individual advisory committee members may be replaced by petition for valid reasons, all members of a student committee cannot resign *en masse*.

Degree Plan

Students, in consultation with the advisory committee, will develop a proposed degree plan. The degree plan must be created, submitted, and approved through the online Document Processing Submission System (<http://ogsdps.tamu.edu/>) (DPSS). The degree plan must be submitted prior to the deadline imposed by the student's college or school and approved by the Graduate and Professional School no later than 90 days prior to the date of the final oral examination or thesis defense. Students must select the appropriate program option when submitting a proposed degree plan.

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

Coursework included on the degree plan is subject to the requirements and restrictions detailed in the Credit Requirements and Limitations on Credits and Coursework sections in each degree program page.

Degree program time limits apply to courses listed on a degree plan. Details are available on the Time Limits section in each degree program page.

Credit Requirements

A minimum of 39 hours of coursework is required for the non-thesis Master of Biotechnology degree.

This program does not offer a thesis option.

Ordinarily, students will devote the major portion of their time on work in one or two closely related fields. Other work will be in supporting fields of interest. To emphasize the integration and application of subject matter learned and the development of written and oral communication skills, a student will be required to take BIOT 684 during the last semester. A student may select 6 credit hours of electives within the 39 credit hour requirement in consultation with the advisory committee. These elective hours may be from any course on the list of approved electives or other courses if approved by the advisory committee.

Limitations on Credits and Coursework

Credit-hour requirements are subject to the following limitations:

1. 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. These limitations also apply to joint degree programs.
2. Transfer credits may be used toward meeting the credit hour requirements under the following limitations:
 - The maximum number of credit hours which may be considered for transfer credit is the greater of 12 credit hours or one-third (1/3) of the total hours of a degree plan.
 - Graduate and/or upper-level undergraduate courses taken in residence at an accredited United States or international institution (recognized by the Office of Admissions), with a final grade of B or greater, may 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.
 - An official transcript from the institution at which the transfer coursework was taken must be sent directly to the Office of Admissions. Coursework credit submitted for transfer from any institution must be shown in semester credit hours or equated to semester credit hours.
 - Up to 1 hour of credit may be obtained for each five-day week of coursework for graduate courses of three weeks' duration or less taken at other institutions. Each week of coursework must include at least 15 contact hours.
 - Grades for courses completed at other institutions are not included in computing the GPA.
3. Coursework in which no formal grades were given, or in which grades other than A or B were earned (for example, CR, P, S, U, H, etc.), is not accepted for transfer credit.
4. Courses completed at Texas A&M University and appearing on the degree plan with grades of D, F, or U may not be absolved by transfer work.
5. Except for officially approved cooperative doctoral programs, credit for thesis or dissertation research – or the equivalent – is not transferrable.
6. Courses used toward a degree at another institution may not be applied for transferred graduate credit.
 - Courses used toward a certificate, but not applied to an awarded degree, may be considered for transfer.
 - If the course to be transferred was taken for a certificate or 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.
7. A student who has earned 12 credit hours of graduate credit in residence at Texas A&M University may be authorized to transfer courses in excess of the limits upon the advice of the advisory committee and with the approval of the Graduate and Professional School.
8. The maximum number of credit hours taken in post-baccalaureate non-degree (G6) classification at Texas A&M University which may be considered for application to the degree plan is 12.
9. Only grades of A, B, C, and S are acceptable for graduate credit.
10. Graduate courses on a degree plan may not be taken on an S/U basis except for 681 (Seminar), 684 (Professional Internship), 690 (Theory of Research), 691 (Research), 692 (Professional Study), 693 (Professional Study), 695 (Frontiers in Research), 697 (Methods), 791 (Doctoral Capstone), or SOPH 680 (Public Health Capstone).
11. A student pursuing a non-thesis option Master's degree may not enroll in 690 (Theory of Research), 691 (Research), or 695 (Frontiers in Research) courses for any reason.
12. A maximum of 12 credit hours may be used, in any combination, of the following:
 - No more than 8 credit hours in a combination of 684, 691 (if permitted), or SOPH 680.
 - No more than 8 credit hours of 684.
 - No more than 8 credit hours of 685 (Directed Studies).
13. A maximum of 3 credit hours may be used toward the non-thesis option Master's degree, in any combination, of the following:
 - No more than 2 credit hours of 681 (Seminar).
 - No more than 3 credit hours of 685 (Directed Studies).
14. Certain zero-credit courses may be allowed for Master's degree programs:
 - A zero-credit 684 (Professional Internship) or 685 (Directed Studies) course is only allowed for non-thesis option Master's programs.
 - A zero-credit 681 (Seminar) course may be used for either thesis or non-thesis option Master's programs.
 - Other courses, including 691 (Research) hours, are not eligible for zero credit.
15. No more than 25 percent of the total credit-hours required on the student's degree plan may be in any combination of 684, 685, 690, 691 (if permitted), and 695.

11. A maximum of 6 hours of advanced undergraduate courses (300- or 400-level) may be considered for application to the degree plan. Undergraduate courses may not be used to satisfy the business requirements.
12. No more than 50 percent of the non-research coursework required for an in-person degree program may be completed through distance education courses.
13. Continuing education or extension courses may not be used for graduate credit.

Some departments may have additional or more restrictive requirements. Exceptions will be permitted only in unusual cases and when petitioned by the student's advisory committee and approved by the Graduate and Professional School.

Final Examination

A final examination is required for the non-thesis Master of Biotechnology degree.

A student must return to campus after the professional internship and pass a final examination by dates announced each semester or summer term in the Graduate and Professional School Calendar (<https://grad.tamu.edu/knowledge-center/dates-and-deadlines/dates-and-deadlines/>). To be eligible to take the final examination, a student's GPA must be at least 3.000 for courses on the degree plan and for all courses completed at Texas A&M which are eligible to be applied to a graduate degree, and there must be no unabsolved grades of D, F or U for any course listed on the degree plan. To absolve a deficient grade, the student must repeat the course at Texas A&M University and achieve a grade of C or better. All coursework on the degree plan must have been completed with the exception of those hours for which the student is registered.

A request to schedule the final examination must be submitted to the Graduate and Professional School *via* ARCS a minimum of 10 working days in advance of the scheduled date for the examination. The Graduate and Professional School will be notified *via* ARCS of any cancellations. A student may be given only one opportunity to repeat the final examination for the master's degree and that must be within a time period that does not extend beyond the end of the next regular semester (Summer terms are excluded). The final exam cannot be held prior to the mid-point of the semester if questions on the exam are based on courses in which the student is currently enrolled.

The BIOT 684 (<http://catalog.tamu.edu/search/?P=BIOT%20684>), Professional Portfolio and oral defense of the contents of that portfolio will constitute the final examination. Each student will prepare a professional portfolio on topics relating to the student's course of study and the internship. The professional portfolio must be submitted to the student's advisory committee for approval prior to the examination. The student's advisory committee will conduct the examination, which will include an oral presentation prepared by the student. Persons other than members of the graduate faculty may, with mutual consent of the candidate and the major professor, attend final examinations for advanced degrees. Upon completion of the questioning of the candidate, all visitors must excuse themselves from the proceedings. 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. All committee members should attend the final examination. If one of the members cannot attend the examination, he or she must find an appropriate substitute. The committee chair may not be substituted.

The student's advisory committee will conduct this examination. The student's department will promptly report the results of the Final

Examination to the Graduate and Professional School *via* the Academic Requirements Completion System (ARCS) within 10 working days of completion of the final examination. If an approved committee member substitution (one only) has been made, their approval must be submitted to the Graduate and Professional School *via* ARCS.

If the program requires the advisory committee to include at least one external member – with an appointment to a department other than the student's major department – and the substitution is for the sole external member of the advisory committee, then the substitute must also be external to the student's major department. In extenuating circumstances, with approval of the Graduate and Professional School, an exception to this requirement may be granted.

A Master of Biotechnology student does not qualify to petition for an exemption from the final examination.

Additional Requirements

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Residence

In partial fulfillment of the residence requirement for the degree of Master of Biotechnology, the student must complete 9 credit hours during one regular semester or one 10-week summer semester in resident study at Texas A&M University. A minimum of 1 credit hour must be in a non-distance education delivery mode. Semesters during which the student is enrolled in all distance education coursework will not count toward fulfillment of the residence requirement. Upon recommendation of the student's advisory committee and with approval of the Graduate and Professional School, a student may be granted exemption from this requirement. Such a petition must be approved, however, prior to the student's registration for the final 9 credit hours of required coursework.

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.

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

Time Limit

All degree requirements for a master's degree must be completed within a period of seven consecutive years. Coursework which is over seven calendar years old may not be applied to a master's degree. Time limits for coursework on the degree plan also apply to transfer courses.

Scholastic Requirements

To maintain good academic standing, a MBIOT student must maintain a minimum cumulative 3.000 GPA each semester. If a student fails to attain a cumulative 3.000 GPA, he or she is placed on academic probation.

A student on academic probation must raise his/her cumulative GPA to 3.000 or above by the end of the next 9 hours of coursework. If this requirement is not met, the Program Chair will recommend that the Graduate and Professional School block the student from further enrollment. If a student is blocked from further enrollment in the MBIOT program, he or she shall not be permitted to enroll in other MBIOT courses.

Foreign Languages

No specific language requirement exists for the Master of Biotechnology degree.

Internship or Practicum

A student who undertakes a professional internship of no less than 375 hours in partial fulfillment of master's degree requirements after completing all course requirements for the master's degree must return to the campus for the final examination. The final examination is not to be administered until all other requirements for the degree, including any internship, have been substantially completed. A student on academic probation will not be allowed to participate in an internship.

Application for Degree

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