

# 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). 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 <http://mbiot.tamu.edu>.

## Program Requirements

### Program Requirements

Student's Advisory Committee (p. 1)

Degree Plan (p. 1)

Credit Requirements (p. 1)

Transfer of Credit (p. 1)

Limitations on the Use of Transfer, Extension and Certain Other Courses (p. 2)

Final Examination (p. 2)

## Student's Advisory Committee

After receiving admission to graduate studies and before enrolling for coursework, the student will consult with the Professional Program in the Biotechnology Office. 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.

The chair, in consultation with the student, will select the remainder of the advisory committee. The student will interview each prospective committee member to determine whether he or she is willing to serve. The chair of the committee has the responsibility for calling required meetings of the committee, and for calling meetings at any other time considered desirable.

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.

If the chair of the student's advisory committee is unavailable for an extended time in any academic period during which the student is

involved in activities relating to an internship and is registered for 684 courses, the student may request, in writing, that the Program Chair appoint an alternate advisory committee chair during the interim period.

The duties of the committee include responsibility for the proposed degree plan, the professional portfolio and the final oral defense. 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.

The committee members' approval 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*.

## Degree Plan

The student's advisory committee, in consultation with the student, will develop the proposed degree plan. The degree plan should be completed and filed with the Graduate and Professional School upon conclusion of the first semester of coursework, but no later than 90 days prior to graduation.

This proposed degree plan should be submitted through the online Document Processing Submission System located on the website <https://ogsdps.tamu.edu>.

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

## Credit Requirement

A minimum of 39 hours of coursework is required for the Master of Biotechnology degree. 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 his/her last semester. A student may select 6 credit hours of electives within the 39 credit hour requirement in consultation with his/her 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.

## Transfer of Credit

A student who has earned 12 hours of graduate credit in residence at Texas A&M University may be authorized to transfer courses in excess of the limits prescribed above upon the advice of the advisory committee and with the approval of the Graduate and Professional School. Courses taken in residence at an accredited U.S. institution or approved international institution with a final grade of B or greater might 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. Otherwise, the limitations stated in the preceding section apply. 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. Courses appearing on the degree plan with grades of D, F or U may not be absolved by transfer work. Credit for thesis research

or the equivalent is not transferable. Credit for coursework submitted for transfer from any college or university must be shown in semester credit hours or equated to semester credit hours. An official transcript from the university at which the transfer coursework was taken must be sent directly to the Office of Admissions.

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.

## Limitations on the Use of Transfer, Extension and Certain Other Courses

If otherwise acceptable, certain courses may be used toward meeting credit-hour requirements for the master's degree under the following limitations.

1. The maximum number of credit hours which may be considered for transfer credit is the greater of 12 hours or one-third (1/3) of the total hours of a degree plan. The following restrictions apply:
  - Graduate and upper-level undergraduate 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 student was in degree-seeking status at Texas A&M University, or the student was in degree-seeking status at the institution at which the courses were taken; and if the courses would be accepted for credit toward a similar degree for a student in degree-seeking status at the host institution.
  - Courses previously used for another degree are not acceptable for credit.
2. 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.
3. A zero credit 684 or 685 course is only allowed for non-thesis option master's students. A zero credit 681 course can be used for either thesis or non-thesis option master's students. Other courses, including 691 (Research) hours, are not eligible for zero credit.
4. A maximum of 8 hours of 684 (Professional Internship), and 8 hours of 685 (Directed Studies).
5. A maximum of 2 hours of 681 (Seminar).
6. A maximum of 6 hours of advanced undergraduate courses (300- or 400-level).
7. For graduate courses of three weeks duration or less, taken at other institutions, up to 1 hour of credit may be obtained for each five-day week of coursework. Each week of coursework must include at least 15 contact hours.
8. No credit hours of 690 (Theory of Research), 691 (Research) or 695 (Frontiers in Research) may be used.
9. Undergraduate courses may not be used to satisfy the required business courses.
10. Continuing education courses may not be used for graduate credit.
11. Extension courses are not acceptable for credit.

12. For non-distance degree programs, no more than 50 percent of the credit hours required for the program may be completed through distance education courses.

13. 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.

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 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. 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 hold the final examination must be submitted to the Graduate and Professional School a minimum of 10 working days in advance of the scheduled date for the examination. Please see the Graduate and Professional School website (<https://grad.tamu.edu/>) for the forms. It also should include the signatures of approval of the committee chair and the chair of the intercollegiate faculty certifying the student's eligibility for the exam. The Graduate and Professional School must be notified in writing 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 Report of the Final Examination Form 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. If necessary, multiple copies of the form may be submitted with different committee member original signatures. If an approved committee member substitution (1 only) has been made, his/her signature must be included on the form submitted to the Graduate and Professional School.

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

## Additional Requirements

### Additional Requirements

- Residence (p. 3)
- Time Limit (p. 3)
- Scholastic Requirements (p. 3)
- Foreign Languages (p. 3)
- Internship or Practicum (p. 3)
- Application for Degree (p. 3)

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

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