# Master of Science in Mechanical Engineering

The Master of Science (MS) curriculum is designed to develop new understanding through research and creativity. Students have the option to pursue a thesis or non-thesis Master of Science degree.

## Steps to Fulfill Master's Degree Requirements

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<th>Step</th>
<th>Instruction</th>
<th>Details</th>
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<td>1</td>
<td>Meet with departmental graduate advisor to plan course of study for first semester.</td>
<td>When: Before first semester registration. Approved by: Graduate advisor or chair of the intercollegiate faculty.</td>
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<tr>
<td>2</td>
<td>Establish advisory committee. Submit a degree plan.</td>
<td>When: Prior to the deadline imposed by the student's college and no later than 90 days prior to final oral or thesis defense. Approved by: Advisory committee, department head or chair of the intercollegiate faculty, and Office of Graduate and Professional Studies (OGAPS).</td>
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<tr>
<td>3</td>
<td>If thesis is required, submit thesis research proposal and research proposal approval form to the Office of Graduate and Professional Studies.</td>
<td>When: At least 20 working days prior to the submission of the Request for the Final Examination. Approved by: Advisory committee, department head or chair of the intercollegiate faculty, Research Compliance and Biosafety, and OGAPS.</td>
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<tr>
<td>4</td>
<td>Apply for degree; pay graduation fee.</td>
<td>When: During the first week of the final semester, see OGAPS calendar.</td>
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<td>5</td>
<td>Check to be sure degree program and advisory committee are up-to-date, and coursework is complete.</td>
<td>When: Well before submitting request to schedule final examination.</td>
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<tr>
<td>6</td>
<td>Complete residence requirement.</td>
<td>When: If applicable, before or during final semester. Approved by: OGAPS.</td>
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<tr>
<td>7</td>
<td>Submit request to schedule final examination.</td>
<td>When: Must be received by OGAPS at least 10 working days before exam date. See OGAPS calendar for deadlines. Approved by: Advisory committee, department head or chair of the intercollegiate faculty, and OGAPS.</td>
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<tr>
<td>8</td>
<td>Successfully complete final examination.</td>
<td>When: The Report of the Final Examination Form should be submitted to OGAPS within 10 days following the exam. Approved by: Advisory committee and OGAPS.</td>
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<tr>
<td>9</td>
<td>If required, upload one approved final copy of thesis as a single PDF file to etd.tamu.edu and submit the fully signed thesis approval form to the Office of Graduate and Professional Studies.</td>
<td>When: See OGAPS calendar for deadlines. Approved by: Advisory committee, department head or chair of the intercollegiate faculty and OGAPS.</td>
</tr>
<tr>
<td>10</td>
<td>Graduation; arrange for cap and gown.</td>
<td>For more information, visit <a href="http://graduation.tamu.edu">http://graduation.tamu.edu</a>.</td>
</tr>
</tbody>
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1 The online Document Processing Submission System is located on the website https://ogsdpss.tamu.edu.

2 Complete the application for degree form via the student’s Howdy portal.

## Program Requirements

### Program Requirements

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  - Final Examination/Thesis Defense (p. 3)
- Non-Thesis Option (p. 4)

## Student’s Advisory Committee

After receiving admission to graduate studies and enrolling for coursework, the student will consult with the head of his or her major or administrative department (or intercollegiate faculty, if applicable) concerning appointment of the chair of his or her advisory committee. The student’s advisory committee for the MS degree will consist of no fewer than three members of the graduate faculty, representative of the student’s fields of study and research. The chair or the co-chair of the advisory committee must be from the student’s major 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. The outside member for students in an
interdisciplinary program must have an appointment to 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. The student will interview each prospective
committee member to determine whether he or she is willing to serve.
Only graduate faculty members located on Texas A&M University
campuses may serve as chair of a student’s advisory committee. Other
graduate faculty members located off campus may serve as a member
or co-chair (but not chair) with a member as the chair. The chair of the
committee, who usually has immediate supervision of the student’s
research and thesis, 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 is near completion of the degree and 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 the
student’s academic program and located near the Texas A&M University
campus site, to serve as the co-chair of the committee. The Department
Head or Chair of Intercollegiate faculty may request in writing to the
Associate Provost for Graduate and Professional Studies that a faculty
member who is on an approved leave of absence or has voluntarily
separated from the university, be allowed to continue to serve in the
role of chair of a student’s advisory committee without a co-chair for
us to one year. The students should be near completion of the degree.
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, thesis or professional
paper, and is registered for courses such as 684, 691, 692 or 693, the
student may request, in writing, that the department head appoint an
alternate advisory committee chair during the interim period.

The duties of the committee include responsibility for the proposed
degree plan, the research proposal, the thesis and the final examination.
In addition, the committee as a group and as individual members are
responsible for advising the student on academic matters, and, in the
case of academic deficiency, initiating recommendations to the Office
of Graduate and Professional Studies.

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 must be completed
and filed with the Office of Graduate and Professional Studies prior to
the deadline imposed by the student’s college or interdisciplinary degree
program, if applicable, and no later than 90 days prior to the date of the
final oral examination or thesis defense.

A student should submit the degree plan using the online Document
Processing Submission System located on the website https://
ogsdss.tamu.edu.

A student submitting a proposed degree plan for a Master of Science
degree should designate on the official degree plan the appropriate
program option.

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 or Request for Final Examination Exemption is approved by
the Office of Graduate and Professional Studies.

Credit Requirement
A minimum of 32 semester credit hours of approved courses and
research is required for the thesis option Master of Science degree. A
minimum of 36 semester credit hours of approved coursework is required
for the Non-Thesis Option.

Ordinarily the student will devote the major portion of his or her time to
work in one or two closely related fields. Other work will be in supporting
fields of interest.

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 below upon the advice of the advisory committee
and with the approval of the Office of Graduate and Professional Studies.
Courses taken in residence at an accredited U.S. institution or approved
international institution 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. Otherwise, the
limitations stated in the following 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 Office of Graduate and
Professional Studies.

Grades for courses completed at other institutions are not included in
computing the GPR.

Limitations on the Use of Transfer,
Extension and Certain Other Courses
Some departments may have more restrictive requirements for transfer
work. 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/or 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 degree plan 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. Not more than 12 hours may be used in any combination of the following categories:
   • Not more than 8 hours in the combination of 691 (research), 684 (Professional Internship) or may be used.
   • Not more than 8 hours of 685 (Directed Studies) may be used.
   • Not more than 3 hours of 690 (Theory of Research) may be used.
   • Not more than 3 hours of 695 (Frontiers in Research) may be used.
4. A maximum of 2 hours of Seminar (681).
5. A maximum of 9 hours of advanced undergraduate courses (300- or 400-level).
6. 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.
7. Continuing education courses may not be used for graduate credit.
8. Extension courses are not acceptable for credit.

Exceptions will be permitted only in unusual cases and when petitioned by the student’s advisory committee and approved by the Office of Graduate and Professional Studies.

**Thesis Option**

An acceptable thesis is required for the Master of Science degree for a student who selects the thesis option program. The finished work must reflect a comprehensive understanding of the pertinent literature and express in clear English, the problem(s) for study, the method, and the signed approval form are required by the deadline.

Deadline dates for submitting the thesis are announced each semester or summer term in the “Office of Graduate and Professional Studies Calendar” (see Time Limit statement). These dates also can be accessed via the Office of Graduate and Professional Studies website.

A thesis that is deemed unacceptable by the Office of Graduate and Professional Studies because of excessive corrections will be returned to the student’s department head (or chair of the intercollegiate faculty, if applicable). The manuscript must be resubmitted as a new document, and the entire review process must begin again. All original submittal deadlines must be met during the resubmittal process to graduate that semester.

**Thesis Defense/Final Examination**

A student must pass a final examination by dates announced each semester or summer term in the Office of Graduate and Professional Studies Calendar. To be eligible to take the final examination, a student’s GPR 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. For thesis-option students, an approved thesis proposal must be on file in the Office of Graduate and Professional Studies according to published deadlines prior to the final examination or submission of the request for exemption from the final examination.

A request to hold and announce the final examination must be submitted to the Office of Graduate and Professional Studies a minimum of 10 working days in advance of the scheduled date for the examination. The Office of Graduate and Professional Studies 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).

For thesis option students, the final examination covers the thesis and all work taken on the degree plan and at the option of the committee may be written or oral or both. The final examination may not be administered before the thesis is available to all members of the student’s advisory committee in substantially final form, and all members have had adequate time to review the document. The examination is conducted by the student’s advisory committee as finally constituted. A thesis option student must be registered in the University in the semester or summer term in which the final examination is taken. 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. A department, or interdisciplinary degree program, may have a stricter requirement provided there is consistency within all degree programs within a department or interdisciplinary degree program.

The Report of the Final Examination Form must be submitted with original signatures of only the committee members approved by the Office of Graduate and Professional Studies. If an approved committee member substitution (1 only) has been made, his/her signature must also be submitted to the Office of Graduate and Professional Studies. 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 Office of Graduate and Professional Studies.

A thesis option candidate may petition to be exempt from his/her final examination provided his/her degree plan GPR is 3.500 or greater and he/she has the approval of the advisory committee, the head of the student’s major department, or intercollegiate chair, if appropriate, and the Office of Graduate and Professional Studies. It is required that the petition for exemption be submitted the same semester the student intends to submit the thesis.

Non-Thesis Option

For non-thesis option students, a final comprehensive examination may be required.

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. If a student has completed all required degree plan coursework, the student is not required to be registered for classes in the semester the final examination is administered (unless he/she holds an assistantship). For specific final examination requirements, a student should check the program requirements for the degree which he/she is pursuing.

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

A student pursuing the non-thesis option is not allowed to enroll in 691 (research) for any reason and 691 may not be used for credit toward a non-thesis option Master of Science degree. A maximum of 4 credit hours of 684 (Professional Internship), 8 credit hours of 685 (Directed Studies), and up to 3 credit hours of 690 (Theory of Research) or 695 (Frontiers in Research) may be used toward the non-thesis option Master of Science degree. In addition, any combination of 684, 685, 690, and 695 may not exceed 25 percent of the total credit hour requirement shown on the individual degree plan. All requirements for the non-thesis option Master of Science degree other than those specified above are the same as for the thesis option degree.

Additional Requirements

Residence

In partial fulfillment of the residence requirement for the degree of Master of Science, the student must complete 9 resident credit hours during one regular semester or one 10-week summer semester in resident study at Texas A&M University. Upon recommendation of the student’s advisory committee, department head or Chair of the Interdisciplinary Program, if appropriate, and with approval of the Office of Graduate and Professional Studies, a student may be granted exemption from this requirement. Such a petition, however, must be approved 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 Office of Graduate and Professional Studies.

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

Continuous Registration

A student in the thesis option of the Master of Science program who has completed all coursework on his/her degree plan other than 5V98, 5V99, and 691 (research) is 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/registration-academic-status).

Time Limit

All degree requirements must be completed within a period of seven consecutive years for the degree to be granted. A course will be considered valid until seven years after the end of the semester in which it is taken. Graduate credit for coursework which is more than seven calendar years old at the time of the final examination (oral or written) may not be used to satisfy degree requirements.

A student who has chosen the thesis option must have the final corrected version of the thesis cleared by the Office of Graduate and Professional Studies no later than one year after the final examination, or approval of a petition for exemption from the final exam, or within the seven-year time...
limit, whichever occurs first. Failure to do so will result in the degree not being awarded.

**Foreign Languages**

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

**Application for Degree**

For information on applying for your degree, please visit the Graduation section.

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