

Program Change Request

Date Submitted: 02/12/18 8:52 am

Viewing: **MS-CHEN : Master of Science in Chemical Engineering**

Last approved: 04/10/17 10:41 am

Last edit: 06/15/18 9:44 am

Changes proposed by: tmorrel

Catalog Pages Using [Master of Science in Chemical Engineering](#)
this Program

Faculty Senate Number

Contact(s)

Name	E-mail	Phone
Ashley Henley Angela Allensworth	stokes992@tamu.edu aallensworth@tamu.edu	979-845-3364

Academic level Graduate
Effective Term 2019-2020
Department Chemical Engineering
College Engineering
Program type Degree
Degree designation MS - Master of Science
With a major in Chemical Engineering (CHEN)

Catalog Program Title
Master of Science in Chemical Engineering

CIP and Fund code 14070100

Rationale for Proposal

see attached memo

Program hours **30**

Is this program eligible for financial aid? **Yes**

Will program hours change (increase/decrease) due to the proposed curriculum changes? **Yes ~~No~~**

Program delivery mode
On-campus

In Workflow

1. CHEN Department Head
2. Curricular Services Review
3. EN Committee Preparer GR
4. EN Committee Chair GR
5. EN College Dean GR
6. Provost
7. GC Preparer
8. GC Chair
9. Faculty Senate Preparer
10. Faculty Senate
11. Provost II
12. President
13. External Approval
14. Curricular Services

Approval Path

1. 02/12/18 9:21 am
Arul Jayaraman (arulj):
Approved for CHEN
Department Head
2. 02/13/18 10:42 am
Sandra Williams
(sandra-williams):
Approved for Curricular
Services Review
3. 02/14/18 2:16 pm
Tandilyn Morrel
(tmorrel): Approved for
EN Committee Preparer
GR
4. 02/14/18 9:15 pm
Prasad Enjeti (enjeti):
Approved for EN
Committee Chair GR
5. 02/14/18 9:15 pm
Prasad Enjeti (enjeti):
Approved for EN
College Dean GR
6. 02/28/18 9:51 pm
Deena McConnell
(djm): Approved for
Provost
7. 03/26/18 9:05 am
Meagan Kelly
(meagankelly):
Approved for GC
Preparer
8. 04/05/18 3:59 pm
LaRhesa Johnson
(lrjohnson): Approved
for GC Chair
9. 04/11/18 3:39 pm
Jan Helgoth (helgoth):

Catalog Program Requirements

- Approved for Faculty Senate Preparer
- 10. 05/15/18 4:04 pm Janet Gonzales (janet-gonzales): Approved for Faculty Senate
- 11. 06/15/18 9:44 am Janet Gonzales (janet-gonzales): Rollback to Faculty Senate for Provost II

History

1. Aug 11, 2016 by clmig-jwehrheim
2. Apr 6, 2017 by Angela Allensworth (arankin)
3. Apr 10, 2017 by Angela Allensworth (arankin)

Program Requirements

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Student's Advisory Committee

The Master of Science in Chemical Engineering has a non-thesis track. After ~~After~~ receiving admission to graduate studies, selecting the non-thesis track, graduate studies and enrolling for coursework, the student ~~coursework, the student~~ will be assigned a committee chair. ~~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.~~

For the Thesis track, 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://ogsdpps.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 30 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.

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.

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.

A zero credit 684 and 685 course is only allowed for non-thesis master's students. Other courses, including 691 research hours, are not eligible for zero credit.

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.

A maximum of 2 hours of Seminar (681).

A maximum of 9 hours of advanced undergraduate courses (300- or 400-level).

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.

Continuing education courses may not be used for graduate credit.

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, significance and results of the student's original research. Guidelines for the preparation of the thesis are available in the Thesis Manual, which is available online at the [Office of Graduate and Professional Studies](#) website. After successful defense (or exemption) and approval by the student's advisory committee and the head of the student's major department (or chair of the intercollegiate faculty, if appropriate), the student must submit his/her thesis in electronic format as a single PDF file. The PDF file must be uploaded to the [Office of Graduate and Professional Studies](#) website. Additionally, a signed approval form must be brought or mailed to the Office of Graduate and Professional Studies. The PDF file 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.

Each student who submits a document for review is assessed a one-time thesis/dissertation processing fee through Student Business Services. This processing fee is for the thesis/dissertation services provided. After commencement, theses and dissertations are digitally stored and made available through the Texas A&M Libraries.

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 Proposal

For the thesis option Master of Science degree, the student must prepare a thesis proposal for approval by the advisory committee and the head of the major department or chair of the interdisciplinary faculty, if applicable. This proposal must be submitted to the Office of Graduate and Professional Studies 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 [Office of Research Compliance and Biosafety](#) website.

Final Examination/Thesis Defense

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

The Final Examination is not required for the non-thesis option Master of Science in Chemical Engineering.

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

Additional Requirements

[Residence](#)

[Continuous Registration](#)

[Time Limit](#)

[Foreign Languages](#)

[Application for Degree](#)

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](#).

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](#).

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.

Additional information	4/6/17 Updates to Final Exam, Limitations and Non-Thesis Option verbiage requested by OGAPS. 4/10/17 Updates to the Student's Advisory Committee verbiage requested by OGAPS.
Required Proposal Forms	Signed MS 30 credit hr Memo.pdf Chemical Engineering THECB-Change Semester Credit Hours 2-14-18.docx
Reviewer Comments	M. Nazmul Karim (nazkarim) (01/18/18 2:51 pm): Rollback: To be modified. Sandra Williams (sandra-williams) (02/02/18 9:37 am): OGAPS: please review to make sure updates to the catalog program requirements/additional requirements meet your standard language requirements for graduate programs. Tandilyn Morrel (tmorrel) (02/12/18 8:47 am): Rollback: change to 1 sentence. "A minimum of 30 semester credit hours is required for the Master of Science degree." Deena McConnell (djm) (02/14/18 9:34 pm): THECB form revised to complete the questions in Option 1, and minor revisions elsewhere. Russell Ramirez (rramirez) (03/26/18 3:53 pm): OGAPS will make any necessary updates. LaRhesa Johnson (lrjohnson) (04/05/18 3:59 pm): Added the new #3 under limitations section of program requirements.

Janet Gonzales (janet-gonzales) (06/15/18 9:44 am): Rollback: Glitch in CARS, was not "approved" to be moved to Provost II.

Texas Higher Education Coordinating Board Request to Change Semester Credit Hours

Directions: An institution shall use this form to request a change in the number of semester credit hours (SCH) required for a degree program already on the institution's program inventory in accordance with Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.55 – Revisions to Approved Programs.

Options:

- 1) Revisions that **reduce** the number of SCH require notification of change and affirmation that the reduction does not fall below the minimum requirements of the Southern Association of Colleges and Schools Commission on Colleges, program accreditors, and licensing bodies, if applicable.
- 2) Revisions that **increase** the number of SCH require detailed written documentation describing the compelling academic reason for the increase in the number of required hours.

NOTE: No request or notification is needed if revisions to the degree program curriculum do not result in a change in SCH.

Options 1 and 2 require the signature of the Provost or Chief Academic Officer.

Please submit *Request to Change Semester Credit Hour* via the Online Submission Portal:
<https://www1.thecb.state.tx.us/apps/proposals/>

Information: Contact the Division of Academic Quality and Workforce at 512/427-6200.

Field Code Changed

Administrative Information

1. **Institution:** Texas A&M University

2. **Program Name** – *As it appears on the Coordinating Board's program inventory (e.g., Bachelor of Business Administration degree with a major in Accounting):*

Master of Science in Chemical Engineering

3. **Program CIP Code:**

14.0701.00

4. **Contact Person:** *Provide contact information for the person who can answer specific questions about the program.*

Name: Prasad Enjeti
Title: Associate Dean for Academic Affairs
E-mail: enjeti@tamu.edu
Phone: 979-845-7200

Field Code Changed

Notification/Request for Change in Semester Credit Hours (SCH):

Current SCH: 32

Proposed SCH: 30

Implementation Date: Fall 2018

Complete Option 1 or 2 as appropriate

Option 1: Reduction in Semester Credit Hours

Is the change in the number of SCH compatible with the requirements of accreditation for the program?

a. Southern Association of Colleges and Schools Commission on Colleges

YES NO

b. Program Accreditor(s)

YES NO NA

Name of Program Accreditor: _____

c. Licensing Body(ies)

YES NO NA

Name of Licensing Body(ies): _____

Option 2: Increase in Semester Credit Hours

Provide detailed documentation, such as changes in accrediting agency or licensing body requirements, workforce needs, or academic professional standards and needs, describing a compelling reason for the change in the number of SCH:

Signature of Compliance

I hereby certify that all of the above changes have been approved in accordance with the procedures outlined in Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.55.

Provost/Chief Academic Officer

Date

October 19, 2017

MEMORANDUM

TO: Carol A. Fierke
Provost and Executive Vice President

THROUGH: Mark Zoran
Acting Associate Provost, Office of Graduate and Professional Studies

FROM: M. Katherine Banks *MKBanks*
Vice Chancellor and Dean of Engineering

SUBJECT: College of Engineering request to reduce the minimum student credit hours (SCH) for Master of Science (MS) degree from 32 SCH to 30 SCH

The College of Engineering is committed to providing the highest quality graduate programs. As we strive to do so, it is vitally important that we remain competitive with peer institutions to recruit outstanding graduate students interested in pursuing on campus and online master's degrees in Texas A&M University's College of Engineering. Several of our peer institutions (e.g., The University of Texas at Austin and Georgia Institute of Technology) have established 30-credit hour Master of Science degrees with a non-thesis and with a thesis option in engineering. These programs are very attractive to prospective students. Having a 30-credit hour Master of Science degree program in engineering will allow us to compete effectively, nationally and internationally, for the best students and will help to increase the number of students pursuing online Master of Science degrees.

The College of Engineering currently offers Master of Science degrees with a minimum of 32 credit hours; we would like to reduce the minimum for our Master of Science programs to 30 credit hours. Importantly, the reduction would only set the minimum and departments, wishing to do so, will be permitted to require more credit hours as required by their respective graduate program committees. All departments in the College of Engineering including Biological and Agricultural Engineering support the minimum credit hour reduction of the Master of Science degree from 32 to 30.

The College of Engineering along with the College of Agriculture & Life Sciences respectfully requests to reduce the minimum student credit hours (SCH) for the Master of Science degree from 32 SCH to 30 SCH.

Supporting attachment: A brief review of MS programs degree requirements of peer institutions and SACS requirement.