



# TEXAS A&M UNIVERSITY CORPUS CHRISTI

## **MASTER OF SCIENCE IN ENGINEERING GRADUATE STUDENT HANDBOOK**

**Department of Engineering  
College of Engineering and Computer Science**

Texas A&M University-Corpus Christi (TAMUCC)

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## WELCOME

Congratulations on your acceptance to the Master of Science (MS) in Engineering program at College of Engineering and Computer Science, Texas A&M University-Corpus Christi. Students engaged in graduate studies are expected to educate themselves and be informed about university, college, and program policies regarding their graduate study. This handbook is a start – it provides general guidance to students enrolled in the MS in Engineering graduate program. The handbook contains information about the role of the graduate committee, the degree plan, thesis vs. non-thesis options, course of study, and best practices to guide you towards successfully completing your degree. Graduate students are urged to consult the online TAMUCC Graduate Catalog as an additional resource for policy, procedures, and requirements. Graduate students are also expected to consult the Master's Student Handbook, Graduate Teaching Assistant Guide, Master's Forms, and other resources posted online by the College of Graduate Studies at:

[http://gradcollege.tamucc.edu/current\\_students/masters\\_students.html](http://gradcollege.tamucc.edu/current_students/masters_students.html) . If you are unsure or need guidance about anything, feel free to ask. Best wishes for success in your graduate studies.

*Dr. Ruby Mehrubeoglu*  
*MS in Engineering Program Coordinator*

## SECTION I. MASTER OF SCIENCE IN ENGINEERING PROGRAM

### The Purpose of this Handbook

This handbook is a companion for the catalog of your year of entry: <http://www.tamucc.edu/academics> and in case of any contradiction the catalog or record is the true source of information. The Graduate Studies handbook provides university-wide information relative to student resources, academic policies, financial assistance, graduation and thesis guidelines and can be found at: <https://www.tamucc.edu/grad-college/current-students/masters-students.php>

### Program Mission

The mission of the Master of Science in Engineering program is to prepare students to enter professional work requiring advanced knowledge and study in the engineering disciplines represented by the undergraduate engineering programs at Texas A&M University-Corpus Christi (Civil Engineering, Electrical Engineering, Industrial Engineering, Mechanical Engineering). Upon completion of the MS in Engineering degree, the graduate will have both a solid education in the fundamentals of engineering as well as specialized knowledge on current topics in the field, and will have developed the skills necessary to maintain knowledge of the current state-of-the-art in engineering, allowing for continuing career advancement.

### Program Options

Students pursuing the Master of Science degree in Engineering will choose between a Thesis Option and a Non-Thesis Option. The Thesis Option requires 33 hours of course work including ENGR 5311 Thesis Research I and ENGR 5312 Thesis and results in a written thesis and thesis oral defense. This option is intended for full-time students who are supported by Research Assistantships or Teaching Assistantships, and those wishing to pursue Ph.D. degree in a related engineering field. The Non-Thesis Option requires 36 hours of course work and is typically intended for students who are interested in pursuing a Master of Science degree while working **or wishing to take courses part-time**. Non-thesis option students are also expected to complete a capstone project in their last semester.

The programs in Engineering at A&M-Corpus Christi are all housed in a single Department of Engineering, and the common Master of Science in Engineering, including the single set of educational objectives listed below, will make use of the commonality among the engineering programs and their faculties to facilitate multidisciplinary studies and research leading to the MS degree.

## Student Learning Outcomes

Upon completion of the MS in Engineering degree, graduates will be able to demonstrate the ability to

- (1) identify, formulate, and solve complex engineering problems by selecting and applying appropriate tools and techniques;
- (2) synthesize advanced technical knowledge in a traditional or emerging area of knowledge in a specialized area of engineering; and
- (3) conduct research on topics related to the disciplines of engineering or other related disciplines, either independently or with minimal direction.

## Master of Science in Engineering Faculty and Staff

A listing of the faculty, their research interests, and contact information is posted at: <https://www.tamucc.edu/engineering/roster.php?program=enr>. All engineering faculty who have graduate faculty status may serve as a thesis or project advisor/committee chair for MS in Engineering graduate students.

Other important contacts are as follows.

MS in Engineering Program Coordinator:

Dr. Ruby Mehrubeoglu, [ruby.mehrubeoglu@tamucc.edu](mailto:ruby.mehrubeoglu@tamucc.edu),  
RFEB 222D, 825-3378

Administrative Assistants, Department of Engineering:

Diana Avila, [diana.avila@tamucc.edu](mailto:diana.avila@tamucc.edu), and  
Kristin De La Rosa, [kristin.delarosa@tamucc.edu](mailto:kristin.delarosa@tamucc.edu)  
RFEB 222, 825-5849.

Chair, Department of Engineering (ENGR):

Dr. David Bridges, [david.bridges@tamucc.edu](mailto:david.bridges@tamucc.edu),  
RFEB 222E, 825-2181

Dean, College of Engineering and Computer Science (ENCS):

Dr. David Ma, [david.ma@tamucc.edu](mailto:david.ma@tamucc.edu),  
CI 353, 825-5777

Graduate (Academic) Advisor for College of Engineering and Computer Science

College of Graduate Studies:

Shannon Vo, [shannon.vo@tamucc.edu](mailto:shannon.vo@tamucc.edu)  
FC 236, 825-2654

Dean, College of Graduate Studies:  
Dr. Karen McCaleb, [karen.mccaleb@tamucc.edu](mailto:karen.mccaleb@tamucc.edu),  
FC 151B, 825-3847

## **SECTION II. ADMISSION REQUIREMENTS**

Applicants must comply with university procedures for admission to the degree program. Incomplete applications will not be considered. Persons seeking admission to the MS in Engineering Program should consult the [Admissions](#) section of the graduate catalog for university requirements for admission. In addition to the documents required by the Office of Recruitment and Admissions, applicants must submit GRE general test scores (if not waived), a personal essay of 500 words describing their educational and career interests, goals, prior research/project experience and/or publications, as relevant, and how they expect to be successful in the program, and two letters of recommendations from persons knowledgeable about their academic potential for success in graduate studies.

To be admitted to the MS in Engineering program at TAMUCC, students must have a GPA of at least 2.8 (out of 4.0), and a relevant undergraduate engineering or related degree (e.g., engineering technology, instrumentation, mechatronics, computer science, etc.). Students who do not meet all the admission requirements (GPA, insufficient background in engineering coursework, inadequate preparation in mathematics courses, in-progress degree, etc.) may receive conditional acceptance to the MS in Engineering program, until they meet the admission criteria, or complete the necessary undergraduate leveling courses prescribed by the Department or their advisory committee to prepare for the graduate program. These courses may not apply towards the total number of semester credit hours required to receive the MS degree in Engineering. **INTERNATIONAL STUDENTS ARE NOT ELIGIBLE FOR CONDITIONAL ACCEPTANCE, AND MUST MEET ALL THE ADMISSIONS REQUIREMENTS BEFORE BEING ADMITTED TO THE PROGRAM.** International students, who have not received their undergraduate degree from a US institution, are also required to provide proof of English proficiency (e.g. TOEFL or other exam scores) per university requirements.

A student entering the program is expected to have adequate preparation in engineering and mathematics through their undergraduate degree. The MS in Engineering has four concentration areas: civil engineering, electrical engineering, industrial engineering, and mechanical engineering. For civil engineering, this preparation must include successful completion of undergraduate coursework in structural engineering, materials, geotechnical engineering, and hydraulics/hydrology. For electrical engineering, this preparation must include successful completion of undergraduate course work in circuits and networks, electronics, signal processing, controls, and microprocessors. For industrial engineering, this preparation must include successful completion of undergraduate coursework in human factors, operations research, simulations, manufacturing processes, and logistics. For mechanical engineering, this preparation must include successful completion of undergraduate coursework in dynamics, materials science, strength of materials and solid mechanics, and fluid mechanics and heat transfer. In addition to these, in the area of mathematics, all students must have successfully completed course work in calculus through multivariable calculus, plus differential equations and at least one additional junior level or higher mathematics course such as linear algebra, numerical analysis, or applied probability and statistics.

*This handbook is intended to be read in conjunction with the Graduate Catalog: <http://catalog.tamucc.edu/index.php> and the College of Graduate Studies Handbook [http://gradcollege.tamucc.edu/current\\_students/masters\\_students.html](http://gradcollege.tamucc.edu/current_students/masters_students.html).*



Students who have not successfully completed the above courses may be required to take undergraduate leveling courses in any missing subjects. All leveling courses must be completed with a grade of “B” or better. In addition, students can take no more than 9 credits towards their degree prior to completing all leveling courses.

Students seeking admission to the MS in Engineering program must identify a graduate faculty member willing to serve as their graduate faculty advisor. Applicants may review the research interests of faculty members at [engineering.tamucc.edu](http://engineering.tamucc.edu). Applicants should contact faculty members via e-mail and determine if a particular faculty member is willing to serve as their faculty advisor. Applicants will not be admitted to the program without a graduate advisor.

A limited number of teaching assistant (TA) positions are available to graduate students admitted as degree-seeking students planning on pursuing the Thesis Option. These TA positions are highly competitive. The students should indicate their interest in receiving a Teaching Assistant position during the application process, and identify the undergraduate course laboratories for which they can serve as Teaching Assistant. Preference will be given to those students who are admitted to the MS in Engineering program by the posted priority deadline for fall admission. A minimum undergraduate engineering GPA of 3.0 (out of 4.0), is required to be eligible to receive a TA position.

In addition to meeting all University requirements, students seeking admission to the program for the Master of Science in Engineering must submit the following to the College of Graduate Studies:

- An application and application fee (Normally, the applications are processed through ApplyTexas. For more information, please refer to the link: <https://www.tamucc.edu/gradcollege/new-students/application-process.php>)
- Official transcript from all undergraduate and graduate course work from regionally accredited institutions (international students will be required to submit relevant international transcripts, with translations through approved translation services, if not in English) from any accredited college or university attended.
- An essay (500-1000 words) discussing why the student wishes to obtain a Master’s degree and the student’s areas of interest as they tie to one of the concentrations under MS in Engineering program. The essay should cover how the student has prepared themselves for this field, including the courses, projects, jobs, and other experiences. Students should state whether they plan on pursuing Thesis or Non-Thesis option. Students are encouraged to outline what they hope to accomplish with an MS in computer science and their future plans related to this field, and their research plan, if pursuing Thesis option.
- GRE scores (within five years of the date of application – if not waived)
- International students must show English language proficiency through either TOEFL or IELTS exam and submit additional documents to the College of Graduate Studies (see <http://gradschool.tamucc.edu/international.htm> for full requirements).
- TOEFL/IELTS Scores for International applicants from countries where English is not the native language.

Summary of admission requirements specific to the MS in Engineering program are provided below:

- A minimum GPA of 2.8 (out of 4.0) in either overall undergraduate degree or in the last 60 hours.
- An essay (500-1000 words) discussing why the student wishes to obtain a Master's degree and the student's areas of interest
- Two letters of recommendation
- Transcripts from previous degrees and courses of study (International Students: foreign evaluation (course by course) from a university approved agency)
- GRE scores (waived for Spring 2024 & Fall 2024)

### Program Admission Deadlines

The MS in Engineering program has two types of application deadlines: 1) priority deadline, and 2) rolling admission deadline, which is one month before the start of the semester for domestic students and two months before the start of the semester for international students. All students should strive to meet the priority deadline because it is used to make decisions regarding funding of assistantships. Applications received after the priority deadline will be considered as late applications, and funding options that were available for priority deadline applications may no longer be available. International students have earlier deadlines because of the time required to process visa applications for international students. It is particularly important for international students to apply early to ensure the necessary paperwork is received in time, after admission to the program, to allow ample time for the US visa process.

<b>International Students</b>	<b>Fall</b>	<b>Spring</b>
Priority deadline to receive complete applications.	February 15	August 15
Applications will be accepted and reviewed on a rolling basis until two months before the start of the semester.*	June 1	October 31
<b>Domestic Students</b>	<b>Fall</b>	<b>Spring</b>
Priority deadline to receive complete applications.	March 15	September 15
Applications will be accepted and reviewed on a rolling basis until one month before the start of the semester.	July 1	November 15

\*Due to the potential delays in visa processing, international students are highly recommended to apply early.

\*\*All applicants should be aware that holiday periods may slow processing.

For other deadlines by the College of Graduate Studies, please visit the Websites:

[http://gradcollege.tamucc.edu/current\\_students/graduate\\_calendar.html](http://gradcollege.tamucc.edu/current_students/graduate_calendar.html), and

[http://gradcollege.tamucc.edu/new\\_students/application\\_process.html](http://gradcollege.tamucc.edu/new_students/application_process.html).

Please see [http://gradcollege.tamucc.edu/new\\_students/](http://gradcollege.tamucc.edu/new_students/) for FAQs on the admission process and international admissions.

### Admission Review Process/ Timeline

Students apply through the Graduate College. Once all the documents are complete, in particular, transcripts showing completed degree (translated transcripts through one of the approved translation services are required for international students), GRE test scores (if not waived), recommendation letters, personal statement, etc., they will be forwarded to the MS in Engineering

Graduate Program Coordinator. The applications may be reviewed by the Program Coordinators, or the Departmental Graduate Admissions Committee, based on the documentation provided by the applicant and the applicant's background to assess the applicant's readiness for the MS in Engineering Program. Applicants with proper documentation demonstrating that they meet the admission criteria will be admitted to the program. MS in Engineering Graduate Program Coordinator will inform Office of Graduate Admissions of admitted students so that the applicants' admission status is updated in the university system. This process typically takes a month from the time all documents are submitted and appropriate application fees, as applicable, are paid.

The Graduate Admissions Committee for the MS in Engineering consists of four graduate faculty members each representing one of our undergraduate engineering programs (Civil Engineering, Electrical Engineering, Industrial Engineering, Mechanical Engineering). These four engineering programs are also the sub-disciplines of the MS in Engineering program. Program Coordinators of the same programs may also serve in the review process, if different from the Graduate Admissions Committee members.

### **Graduate Assistantships**

Students seeking full consideration for a graduate assistantship (GA) should have a completed application file submitted by the priority deadline of March 15 (domestic students), or February 2015 (international students) (for fall admission only). However, applicants must apply separately for scholarships and assistantships at the College website:

<https://www.tamucc.edu/engineering/student-information/graduate-funding>.

After the priority deadline, any awards will be made on a first come, first served basis and based on the remaining GA needs of the department and/or faculty. Students who have received offers of assistantships must notify the Engineering Graduate Program Coordinator (Dr. Ruby Mehrubeoglu) and the College of Engineering and Computer Science Dean's Office of their acceptance within one week of receiving the offer letter and before the start of the semester (whichever comes first). Otherwise, it will be assumed that the GA position offer has not been accepted, and the offer will be made to other students.

Admission to the program is decided independently of financial awards. Students must first be accepted into the program before financial awards can be considered. For details regarding graduate assistantships, refer to the CGS Graduate Assistantship Handbook

### **Teaching Assistantships**

Teaching assistantships are one category of graduate assistantship positions, and are available on a competitive basis each year through the College of Engineering and Computer Science, at the request and recommendation of the department.

(Please see <https://www.tamucc.edu/engineering/student-information/graduate-funding.php>.)

The State of Texas requires international graduate students whose native language is not English to obtain English proficiency certification before serving as graduate teaching assistants. See CGS

Graduate Assistantship Handbook for details. Note: Students receiving a TA position are expected to pursue the Thesis option, as will be indicated in their offer letter.

### **Research Assistantships**

Research assistantships are second category of graduate assistantships. A limited number of research assistantships are available through the individual faculty members. Consult with individual faculty for potential RA opportunities and for more information. RA positions are typically grant-funded and offered in the student's field of expertise and interest. The research performed is generally relevant to the student's MS thesis research project.

### **Eligibility**

All students who hold assistantships of any type must be enrolled as full-time graduate students (at least 9 graduate hours during the fall and spring semesters, and 3 hours during the combined summer session) in the MS in Engineering program. Appointments are for two full semesters (fall and spring). Reappointment requires reapplication each year, and students should not assume that the appointment will continue automatically. Summer assistantships may be available but must be applied for separately. There may not be TA positions during the summer. Check the CGS website for additional funding opportunities <http://gradschool.tamucc.edu/fundinginfo.html>

### **Out-of-State Tuition Waiver**

Graduate assistants (research or teaching) receiving a 5% FTE are eligible for a tuition waiver that reduces tuition to Texas Resident rates. However, this must be applied for each semester and a student must work in a half-time (20 hrs/week) position and be enrolled in 9 credit hours during fall and spring semesters and 3 credit hours during the summer to be eligible for the waiver. Students receiving GA positions, as long as the GA offer letter is processed by the posted deadline each semester, are eligible for out-of-state tuition waivers. To apply for the waiver, visit the College of Graduate Studies (CGS) website, complete the Graduate Assistant In-State Tuition Form, and obtain the required signatures of approval.

<http://gradschool.tamucc.edu/funding/assistantships.html#teaching>

Students will also need their Notice of Appointment Letter (NOA). Upload the documents to [https://gradcollege.tamucc.edu/forms/TA\\_RA\\_waiver\\_request.php](https://gradcollege.tamucc.edu/forms/TA_RA_waiver_request.php).

The Graduate Assistant In-State Tuition Form must be completed each semester. Students receiving a University scholarship of \$1,000 or more per year may be eligible for in-state tuition contingent upon availability of Competitive Scholarship Waivers. The University Scholarship Office or the Office of the Provost determines how many waivers are available each year. There is no separate form required.

### **Cost of Education**

Graduate education can be expensive and many students may want to estimate their financial commitment. The College of Graduate Studies has information available so that students can estimate the cost of attendance. Visit this website:

[http://gradschool.tamucc.edu/funding/cost\\_of\\_attendance.html](http://gradschool.tamucc.edu/funding/cost_of_attendance.html)

### **New Student Orientation**

A New Student Orientation Session is offered every Fall and Spring semester as part of the Graduate Student Orientation.

Topics covered during the session include:

- The College of Graduate Studies
- The Big Picture of Graduate Degrees
- Getting to the Master's Degree
- University and Program requirements

## SECTION III. ACADEMIC PROGRESSION

### Program Degree Requirements

The program leads to the degree of Master of Science in Engineering. Each student chooses a concentration in one of the disciplines of civil, electrical, industrial, or mechanical engineering. The program has a thesis option and a non-thesis option. The thesis option requires 33 semester credit hours (SCH), and the non-thesis option requires 36 SCH. All students take a common required core of 12 SCH, consisting of three lecture courses and two seminar courses. Students take 9 SCH of prescribed electives in their chosen concentrations. Thesis-option students take an additional 6 SCH of free electives and 6 SCH of research / thesis. Non-thesis-option students take 12 SCH of free electives plus 3 SCH for a capstone projects course.

The curriculum is designed to provide students with the fundamental background and training that will prepare them to pursue research, further graduate study involving research, or positions in industry at higher levels than those that are available to students with a Bachelor's degree only. The core classes in mathematics and experimental methods are standard for such programs, as are the concentrations in specific discipline areas. The flexibility to work across disciplines is the reason why a Master of Science in Engineering, as opposed to MS degrees in electrical engineering, mechanical engineer, etc. is being sought.

Upon admission to the MS degree program in engineering, The student must have identified a faculty advisor, who will come from the graduate faculty in the Department of Engineering. By the end of the first semester of study, the student and advisor should complete and file a degree plan with the Graduate Program Coordinator. Students should seek the advice of their faculty advisor on a regular basis about their progress toward their degree.

Graduate students who have met with their advisory committee, formulated an approved degree plan, and has the plan on file is considered a degree candidate. Students are expected to have advanced to degree candidacy by the end of the second full semester of graduate study following admission to the program. A student's advisory committee must approve any subsequent changes to the degree plan. A change from the thesis to the non-thesis option or vice versa requires that the student file a new degree plan as approved by the advisory committee.

Once admitted to the graduate degree program in engineering, a student must complete at least six semester hours of credit per year toward the degree until the degree is completed. (Note: Full-time student status requires nine semester hours of credit in a given fall or spring semester.) Failure to make this minimum progress will result in dismissal from the degree program with possible readmission based on the catalog in effect at the time of readmission. A student who is actively pursuing a graduate project or thesis and has completed all other course work for the degree will be given relief from this requirement, but must register continuously for the related project or thesis course until the project or thesis is completed, and all requirements are met and the student is approved for graduation in the semester the course is taken. (Note: International students may have restrictions on the minimum number of semester credit hours in which they are allowed to enroll every semester to remain in compliance with their student visa requirements.)

All MS in Engineering students must enroll in [ENGR 5101 Engineering Seminar I](#) during their first semester, or the first semester it is offered after being enrolled in the program to better understand the requirements of the program and to start on the path to develop the required skills thereof. The other courses during the first semester (fall) that are to be enrolled include [ENGR 5401](#), [ENGR 5302](#), [ENGR 5305](#). All MS in Engineering students must enroll in [ENGR 5102 Engineering Seminar II](#) which is offered the following semester (spring).

### **Course Requirements for Thesis Option**

There are 33 hours of credit required for the MS-ENGR degree, thesis option: 12 hours of core classes common to all students (including 2 hours of seminar), 9 hours of area core courses (prescribed electives) for the areas of electrical, mechanical, civil, and industrial engineering, 6 hours of electives, and 6 hours of thesis research / thesis. Each student will have a program of study that will be developed by the student and the student's advisor and approved by the student's graduate committee. The MS-ENGR degree is designed to have some flexibility, such that a student in one concentration is not prohibited from taking courses in other concentrations, subject to the satisfaction of prerequisites for courses. So, for example, a student pursuing an MS-ENGR degree with a concentration in electrical engineering and performing research on the design of autonomous systems might find it useful to take the Human Factors course in the industrial engineering concentration. Similarly, a student pursuing an MS-ENGR degree with a concentration in industrial engineering and doing research on manufacturing processes might find it useful to take the Mechatronics course in the electrical and mechanical engineering concentrations.

*a. General required core courses – 12 hours*

All students in the MS-ENGR degree program will take 12 hours of core classes. These are

- ENGR 5401 Engineering Mathematics and Analysis (4 SCH)
- ENGR 5302 Numerical Methods for Engineers (3 SCH)
- ENGR 5305 Experimental Methods and Design in Engineering (3 SCH)
- ENGR 5101 Engineering Seminar I (1 SCH)
- ENGR 5102 Engineering Seminar II (1 SCH)

The purpose of the lecture courses is to provide a uniform background for all engineering students in subjects that form the foundations of research methods in engineering. The seminar courses will provide additional instruction in research methods (primarily related to issues associated with writing of theses and presentation of work) as well as venues for presentations of research by graduate students.

*b. Area core courses (discipline specific) – 9 hours*

There will be four discipline-specific areas in the MS-ENGR degree program: electrical engineering, mechanical engineering, civil engineering, and industrial engineering. These will represent concentrations within the MS-ENGR degree program but will not lead to

separate degrees in each area. These concentrations of courses correspond to the disciplines represented in the A&M-Corpus Christi Department of Engineering. The courses in each of the discipline-specific areas are listed as “prescribed electives” in the table that lists concentration-specific courses.

*c. Elective courses – 6 hours*

Students will select two of the courses listed in the Elective courses table, below. Note that students in one concentration may select courses listed in the table from other concentrations, subject to the approval of the student’s advisor and committee. In addition, other 5000-level MATH courses may be substituted if approved by the student’s advisor and committee.

*d. Thesis (6 hours)*

All students in the thesis-option MS-ENGR program will complete the following two courses:

- ENGR 5311 Thesis Research
- ENGR 5312 Thesis

### **Course Requirements for Non-Thesis option**

There are 36 hours of credit required for the non-thesis option. Those students who wish to complete the MS-ENGR degree without writing a thesis will not take ENGR 5311 and ENGR 5312. They will take 4 courses for a total of 12 hours from the list. In addition, non-thesis students will be required to take ENGR 5313 Capstone Project in their final semester as their culminating experience.

The MS-ENGR program will allow up to 6 hours of graduate-level courses to be transferred for credit in the MS-ENGR program. This is below the A&M-Corpus Christi limit of 12 hours, and in accordance with A&M-Corpus Christi policy, all transfer work must be appropriate to the MS-ENGR degree. The student’s graduate committee and the College of Graduate Studies will approve all transfer course work.

Because this is a graduate degree in engineering, other avenues of learning such as professional experience are not likely to attain the degree of rigor required of a graduate course, and therefore no course credit can be received through course credit by examination or professional experience.

### **Other requirements for Thesis Option**

Students choosing the thesis option must obtain permission from their graduate faculty advisor (who will chair their MS committee) to register for [ENGR 5311](#) Thesis Research (3 sch), which



should be taken no later than the next to last semester before graduation. At the beginning of [ENGR 5311](#), the student and their advisor should determine the faculty members who will comprise the thesis committee. This committee consists of at least three full-time Texas A&M University-Corpus Christi graduate faculty members, including the committee chair, two of whom must be in engineering.

While taking [ENGR 5311](#), the student will develop a written proposal of the thesis work and present the proposal for approval. The student must continually register for [ENGR 5311](#) Thesis Research (3 sch) until the research is near completion. When the student is ready and has the advisor's approval, the student may then register for [ENGR 5312](#) Thesis (3 sch), to be taken in the last semester. If the student fails their final examination, which is an oral defense of their project, a grade of No Credit will be assigned to [ENGR 5312](#) and all semesters of [ENGR 5311](#) taken previously, and the student must begin the process again. If the student passes the examination but fails to meet the deadlines for graduation that semester, the student will be required to enroll in [ENGR 5312](#) the following semester to meet the requirement that the student be enrolled in the course in the semester in which the student graduates.

While taking [ENGR 5312](#) Thesis (3 sch), the student will produce a written thesis that discusses their work. A draft copy of the thesis will be given to all committee members and the student will make any changes required by the committee. Upon approval of the thesis committee chair, the student may schedule their final oral examination. The thesis will be published and archived in the Mary & Jeff Bell library. Guidelines for writing the thesis are available in the Department of Engineering office as well as the College of Graduate Studies.

### **Other Requirements for Non-Thesis Option**

Students must take all required courses along with their chosen electives as outlined in the degree plan. [ENGR 5313](#) Capstone Project (3 sch) is taken in the final semester and culminates in an appropriate project that requires a report and an oral presentation.

### **Final examination (Thesis Option)**

After the student has completed all other requirements for the MS degree in engineering, the student must schedule an oral exam over the student's graduate program of study. The oral exam will be administered by the graduate thesis committee and will focus heavily on the thesis itself.

#### **1. Core courses (All students)**

<b>Core Courses (12 hours)</b>		<b>SCH</b>
<a href="#">ENGR 5401</a>	Engineering Mathematics and Analysis	4

<a href="#">ENGR 5302</a>	Numerical Methods for Engineers	3
<a href="#">ENGR 5305</a>	Experimental Methods and Design in Engineering	3
<a href="#">ENGR 5101</a>	Engineering Seminar I	1
<a href="#">ENGR 5102</a>	Engineering Seminar II	1

## 2. Thesis and Non-Thesis Options

<b><i>Option I - Thesis Option (21 hours)</i></b>		
Select 9 hours of prescribed electives in the concentration area and 6 hours of electives either within or outside the concentration area (with approval of advisor) (15 hours)		SCH
<a href="#">ENGR 5311</a>	Thesis Research	3
<a href="#">ENGR 5312</a>	Thesis	3
<b><i>Option II - Non-Thesis Option (24 hours)</i></b>		
Select 9 hours of prescribed electives in concentration area and 12 hours of electives within or outside the concentration area (with advisor's approval) (21 hours)		SCH
<a href="#">ENGR 5313</a>	Capstone Project (must be taken in last semester)	3

## 3. Concentrations

<b><i>Civil Engineering</i></b>		
<b><i>Prescribed electives</i></b>		
<a href="#">CEEN 5321</a>	Structural Engineering	3
<a href="#">CEEN 5331</a>	Water Resources Engineering	3

<a href="#">CEEN 5332</a>	Environmental Fluid Mechanics	3
<i>Electives</i>		
<a href="#">CEEN 5311</a>	GIS for Civil Engineering	3
<a href="#">CEEN 5322</a>	Optimization	3
<a href="#">CEEN 5323</a>	Sustainable Infrastructure Engineering	3
<a href="#">CEEN 5333</a>	Environmental Engineering	3
<a href="#">CEEN 5341</a>	Transportation Engineering	3
<a href="#">CEEN 5351</a>	Geotechnical Engineering	3
<i>Electrical Engineering</i>		
<i>Prescribed Electives</i>		
<a href="#">EEEN 5311</a>	Dynamics and Control Systems I	3
<a href="#">EEEN 5321</a>	Materials Devices and Micro-electrical-mechanical Systems	3
<a href="#">EEEN 5331</a>	Signal Processing I	3
<i>Electives</i>		
<a href="#">EEEN 5312</a>	Mechatronics	3
<a href="#">EEEN 5313</a>	Linear Systems	3
<a href="#">EEEN 5314</a>	Robotics and Autonomous Systems	3
<a href="#">EEEN 5322</a>	Embedded Systems	3
<a href="#">EEEN 5332</a>	Machine Vision and Image Processing	3
<a href="#">EEEN 5333</a>	Random Signal Processes	3

<b><i>Industrial Engineering</i></b>		
<b><i>Prescribed Electives</i></b>		
<a href="#"><u>IEEN 5311</u></a>	Linear and Nonlinear Programming	3
<a href="#"><u>IEEN 5312</u></a>	Modeling and Simulation	3
<a href="#"><u>IEEN 5321</u></a>	Human Factors	3
<b><i>Electives</i></b>		
<a href="#"><u>IEEN 5313</u></a>	Optimization	3
<a href="#"><u>IEEN 5322</u></a>	Ergonomics and Safety Engineering	3
<a href="#"><u>IEEN 5331</u></a>	Quality Control	3
<a href="#"><u>IEEN 5332</u></a>	Supply Chain Management	3
<a href="#"><u>IEEN 5333</u></a>	Manufacturing Process Engineering	3
<b><i>Mechanical Engineering</i></b>		
<b><i>Prescribed Electives</i></b>		
<a href="#"><u>MEEN 5311</u></a>	Dynamics and Control Systems I	3
<a href="#"><u>MEEN 5321</u></a>	Intermediate Fluid Mechanics	3
<a href="#"><u>MEEN 5331</u></a>	Intermediate Heat and Mass Transfer	3
<b><i>Electives</i></b>		
<a href="#"><u>MEEN 5312</u></a>	Mechatronics	3
<a href="#"><u>MEEN 5313</u></a>	Engineering System Design	3
<a href="#"><u>MEEN 5314</u></a>	Robotics and Autonomous Systems	3
<a href="#"><u>MEEN 5322</u></a>	Advanced Fluid Mechanics	3

<a href="#">MEEN 5323</a>	Computational Fluid Dynamics I	3
<a href="#">MEEN 5324</a>	Turbulent Flow	3
<a href="#">MEEN 5332</a>	Advanced Heat Transfer	3
<i>Additional Electives</i>		
<a href="#">ENGR 5390</a>	Special Topics	3
<a href="#">ENGR 5396</a>	Directed Independent Study	3
<a href="#">MATH 5343</a>	Mathematical Theory of Statistics	3
<a href="#">COSC 6354</a>	Artificial Intelligence	3
<b>Total Hours</b>		<b>Thesis: 33</b> <b>Non-Thesis: 36</b>

### About Electives

Electives are chosen by the student but are subject to approval by the student's graduate faculty advisor (who is also the thesis committee chair for students in the Thesis Option). For the Thesis Option, electives should be taken that will support the student's thesis work. For the Non-Thesis Option, students must take two electives in their concentration and two electives outside their concentration. All electives must be approved by the student's graduate faculty advisor.

No more than six hours of approved electives may come from courses taken at another university and/or from outside of engineering. Credit from a master's degree earned at another institution will not be applied to a second master's degree at Texas A&M University-Corpus Christi. A maximum of six hours of approved Directed Independent Study courses may count toward the MS degree.

Note: Other courses may be substituted for required or elective courses upon approval. ENGR 5390 and ENGR 5396 may be repeated for credit for different topics.

## Thesis (in Thesis Option)

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Thesis option students are required to complete a graduate thesis as a part of their degree program. The thesis involves exploring a specific problem or topic within the field, aiming to contribute new knowledge or insights through research. The thesis may involve developing and testing new engineering methods, materials, systems; conducting empirical studies to evaluate the effectiveness of different approaches, systems, solutions, or any other engineering relevant topic that contributes to the body of knowledge. Thesis research and Thesis provide the students with valuable experience applicable in further studies, as well as to their future careers in academia or industry. The Thesis Option requires a minimum of 33 credit hours. Aside from the required 12 hours of core courses and 6 hours of the Thesis Research and Thesis courses, students are required to pick at least 12 hours of electives and prescribed electives. This option allows for maximum flexibility in choosing elective courses and allows the student to concentrate on a particular field or area of engineering.

Each student pursuing the thesis option will produce a written thesis and defend their thesis at the final oral examination. The thesis is carried throughout ENGR 5311 Thesis Research and ENGR 5312 Thesis. The student should submit their proposal by the end of the first year, but no later than next to last long semester before graduation. Some semesters will involve investigating the proposal (Thesis Research), with completion and the final oral examination (Thesis submission) during the final semester. See the Graduate Catalog for grading and procedures for the Thesis course sequence.

Students choosing the thesis option must register for ENGR 5311 Thesis Research (3 SCH), which should be taken in the next to last semester (3<sup>rd</sup> semester of the program). The student and their advisor should determine the thesis committee at this time. This committee consists of at least three full-time Texas A&M University-Corpus Christi graduate faculty members, two of whom must be from engineering. While taking ENGR 5311 Thesis Research, the student will develop a written proposal of the thesis work and present the proposal for approval. If the student will not register for ENGR 5312 the following semester, then the student must continue to register for ENGR 5311 until ready to take ENGR 5312 to complete the thesis.

If the student fails to register for ENGR 5312 Thesis, or fails their final oral examination, a grade of No Credit will be assigned to ENGR 5311 Thesis Research and all ENGR 5312 Thesis courses, and the student must begin the process again. While taking ENGR 5312 Thesis, the student will produce a written thesis that discusses their work. A draft copy of the thesis will be given to all committee members and the student will make any changes required by the committee. Upon approval of the thesis committee chair, the student may schedule their final oral examination. The thesis will be published and archived in the Mary & Jeff Bell Library. Guidelines for writing the thesis are available in the Department of Engineering office. If a student, who opted for the thesis program, desire to alter their thesis committee, the student must submit a formal application using the Thesis Committee Member Change Request Form, also referred to as Form D. The forms can be accessed and downloaded from the links provided below:

[http://gradcollege.tamucc.edu/current\\_students/dissertation\\_thesis.html](http://gradcollege.tamucc.edu/current_students/dissertation_thesis.html)

[http://gradcollege.tamucc.edu/contact\\_us/forms.html](http://gradcollege.tamucc.edu/contact_us/forms.html)

## **Capstone Project (in Non-Thesis Option)**

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Students seeking the No-Thesis Option must enroll in ENGR 5313 Capstone Projects in their last semester. This students will engage in culminating research or design project under supervision of a graduate faculty member. The capstone project is a culminating experience whose deliverables include a final report and oral presentation at the end of the semester.

### **Graduate Advisory Committee**

The purpose of the graduate advisory committee is to provide guidance and technical advice from a diverse viewpoint throughout the student's research experience. The committee chair (typically the graduate advisor) is the principal source of research guidance. The other members of the committee are selected by the student and should be chosen to provide complementary expertise to that of the committee chair. All committee members must have graduate faculty status at A&M-CC.

The chair is selected at the start of the student's first semester, and the full committee must be selected within the first two semesters. The advisory committee must be documented with Form A: Thesis Advisory Committee Appointment Form, available at: [http://gradcollege.tamucc.edu/contact\\_us/forms.html](http://gradcollege.tamucc.edu/contact_us/forms.html) (despite the name of the form, this applies to both Thesis and Non-thesis options of the program). Any changes to the committee require Form D: Thesis Committee Member Change Request form, which is filed with the College of Graduate Studies.

Preliminary drafts of the thesis or professional paper are typically reviewed by the committee chair. The final draft of the written product is presented to the full committee for comments and/or changes before it is submitted. The final approval of the thesis occurs at the final oral examination (described further below)

### **Degree Plan**

The degree plan (see Appendix II) will be administered by the academic advisor (see personnel in Section II). The degree plan must be completed within the first semester and must be signed by all committee members.

### **Culminating Event/Exit Requirements**

The culminating event is the final oral examination, also known as the Final Defense. Grades for the final course, ENGR 5312 Thesis, will be entered only after all requirements have been met.

### **Notification of Intent to Graduate**

Graduation upon completion of the course requirements is NOT automatic. The semester before graduation is anticipated, students should obtain an application form from the Office of Admissions and Records by the deadline date indicated in the University Class Schedule. Deadline dates are also available on the Texas A&M University-Corpus Christi website.

## SECTION IV. PROGRAM SPECIFIC INFORMATION

A thesis must conform to the MS in Engineering Program and College of Graduate Studies institutional standards. The following guidelines will help ensure the thesis is completed and submitted appropriately. Consult the CGS Master's Student Handbook for specific formatting and submission requirements.

### Research Prospectus

The MS in Engineering Program strives to train all master's students comprehensively including with knowledge in their professional fields as well as training in the methods of research. Students must conduct original research related to the MS in Engineering program goals. Students pursuing Thesis option will be expected to engaged in internal/external scholarly publications and presentations.

The master's student, along with the student's graduate advisory committee, designs and plans the thesis research project. This plan should be formalized in a "*Prospectus*", a brief two-page document summarizing the motivation, goals and methods of the student's intended research project, as well as the expected benefits or outcomes. The prospectus is a prologue to the formal thesis proposal and should be presented to the graduate advisory committee at an early meeting.

The introduction section of the prospectus should briefly explain the area of interest and scholarly motivation for the research. One or a few clearly stated objectives should be listed. The prospectus should conclude with an approach on how, where, and when the research will be accomplished. The prospectus will be submitted, along with the degree plan, to the Department of Engineering and College of Engineering and Computer Science Dean's Office (Academic Advisor), no later than the end of the **second long semester** (fall/spring).

### Structure of Thesis Proposal

The proposal should be concise and provide a compelling rationale for the proposed research. The proposal must include a brief but complete synthesis of previous research on the problem, the significance or novelty of the research, and a detailed plan (experimental protocol, data collection, test plan) for carrying out the research and eventual analysis of the results. The proposal must also include a timeline with distinct milestones to guide the student and the advisory committee in assessing progress, as well as the budget. The proposal should be approved by the advisory committee prior to substantial research.

The proposal must include the following sections, in this order:

1. Title page. See example of a correctly spaced and formatted title page below.
2. Project Summary. Like an abstract, the summary should be a synopsis of the proposed activity suitable for publication and not more than one page in length. It should describe the activities of the project. The summary must clearly address, in separate statements, the



two merit review criteria that are used by national science programs: 1) the intellectual merit of the proposed activity; and 2) the broader impacts resulting from the proposed activity.

3. **Background & Relevance.** This section summarizes the available scientific literature related to the problem or topic and explains why the proposed research is necessary.
4. **Purpose, and Objectives.** This section explicitly states the purpose of the research project. The purpose should reflect the question(s) that the research hopes to answer, not the method used to conduct the research. The objectives provide the steps in the research (not explicit methods) that will be used to answer the question
5. **Methods.** This section describes in detail the methods of data collection and analysis used to meet each research objective. This is arguably the most important part of the proposal. Be sure and include how and when any necessary permits are obtained.
6. **Timeline.** The timeline should be a table that includes distinct milestones showing the schedule for both research and academic work. Milestones should include completion of coursework, preliminary examinations, data-gathering for each objective, and analysis of each objective, writing of thesis, submission to committee, and graduation.
7. **Budget.** The budget should reflect an accurate assessment of the expenses that will be incurred during the research project and by whom they will be paid. Include financial or other support obtained from all sources. Include each relevant item in the budget in the “Methods” section of the proposal. Divide the budget into 4 subsections and present it in tabular form.
  - a. **Equipment.** Include cost figures for each piece of non-expendable equipment that must be purchased to support research. Do not include purchase costs for equipment already available for use at TAMU-CC, but make sure that such equipment is operational and available. Obtain permission before using University equipment and expendables
  - b. **Expendables.** Estimate costs for all supplies, chemicals or other items to be exhausted during the research project. All items currently in stock must be replaced, so include replacement costs. Expendables include items such as traps, microscope slides, test tubes, glassware, aerial photography, and electronic data.
  - c. **Operational Expenses.** Include cost estimates for data collection including travel, boat rental and other expenses. The use of university vehicles and boats requires approval by the Field Trip Coordinator and the Department Chairperson, or the research institute or center director with oversight over that vehicle.
  - d. **Document Preparation.** Include cost estimates for all aspects of preparing the proposal and thesis, including the cost of having the final document bound. These costs are born by the student alone.
8. **Budget Justification.** This is a brief statement explaining why each element of the budget is necessary to accomplish the research.

9. Literature Cited. This section includes the complete citation for each article referenced in the proposal in the format of the selected Format Journal.

After the proposal is completed, i.e., it is written well and formatted correctly, a draft copy must be submitted to the chair of the graduate advisory committee for approval. Approved proposal must be submitted to the Department (Program Coordinator).

Writing a successful proposal may require many drafts prior to approval by the entire advisory committee. Starting this process early is strongly advised. After the proposal meets the committee chair's approval, each of the remaining committee members should be provided a copy for review, feedback and approval. After all requested changes have been made and the committee is satisfied that all aspects of the proposal are in order, the final thesis proposal must be delivered to the committee chairperson for signature and then to the rest of the committee and the program coordinator for signatures.

Once all signatures are obtained, make copies of the proposal to distribute to all members of the graduate advisory committee, Department and to the College of Engineering and Computer Science Dean's Office. Students must take this process into account when planning their research schedule.

### **Format of Thesis Proposal**

Make all narrative material of the thesis proposal clearly understandable to the reader through careful, well-organized writing, meaningful figures and tables, and adequate utilization of references. Several publications available in the TAMU-CC library answer specific questions regarding the style of scientific writing, including the Council of Science Editors (CSE) Style Manual, the United States Government Printing Office Style Manual, and others. No corrections of letters or figures should be visible on the final copies.

Prepare the manuscript using styles in a word processor. Styles allow one to reformat the document quickly. The font should be 10 or 12 characters-per-inch (cpi) type size with a plain book-type font such as Helvetica or Times New Roman, not some unusual font. Follow the Format Journal in italicizing or underlining scientific nomenclature, foreign words, abbreviations and titles. When underlining a word, use a continuous underline; do not leave a space in the underline between letters. Separately underline each word of a multiword term, leaving a gap between adjacent words. In general, double-space the thesis proposal and thesis manuscript. The exceptions to this rule are for quotations exceeding six typed lines (inset and single-space these) and footnotes (which should be avoided). Figure and table captions should also be single-spaced. One line should separate a table caption from the table header and two lines should separate any embedded figure or table from text on the same page. Number all pages in the thesis proposal or thesis manuscript except the Title and Approval pages. Number the preliminary pages of the thesis proposal with lower case Roman numerals. The Abstract page is the first numbered page; it follows the Title and Approval pages and is numbered iii. The style and format for all headings and subheadings in the thesis proposal and thesis manuscript should follow the standard practice of the Format Journal. Start

each major heading (i.e., Methods, Study Area, Results, Discussion, etc.) on a new page. Subheadings should fall naturally within the text, but should never appear alone as the last line on a page (“orphan”). If a subheading is the last line of text, start it at the beginning of the next page.

Tables and figures, regardless of size, may appear on separate pages or within the text itself. Place them in the manuscript as close as possible to their first reference in the text (generally the page on or immediately following the first reference). Make sure that figures and tables are relevant and useful to the reader, and use as many as are necessary to fully report on the results of research. If a figure or table is relevant, but represents ancillary information or “raw” data, include in an appendix rather than in the main text of the manuscript. If tables or figures are placed in landscape format on a page, the top of the table or figure should be on the left side. Give each table or figure a number and caption, and transcribe these exactly on the List of Tables or List of Figures page; if a figure or table caption is more than one sentence, then put only the first sentence into the list. Make captions as concise as possible, but clearly describe the content of the figure or table. Follow exactly the format and style for figures and tables prescribed by the Format Journal.

Construct tables using the “Table” function found in all word processors. Titles for tables must appear on the same page as the table, and should be placed above the table. Make horizontal rules mimic the Format Journal. Vertical rules should not be used. If a table is more than one page long, there should be no closing line on the first page and the second page of the table should have a caption reading “Table #. Continued.” Multi-page tables should always begin on a new page; in other words, the first few lines of a multi-page table should not appear embedded within the text. Use the caption style of the word processing program for figures, which usually places the caption below the figure.

Footnotes should not appear within the regular text of the manuscript (they are permissible as explanatory notes in tables) except in rare circumstances. If they are absolutely necessary and the Format Journal permits their use, follow the journal format exactly. Cite all references to the literature in the text using the name-date system which is the method most widely used in the sciences, e.g., Stilt (2000) or (Heron, 1995; Seagull 1996; Seagull and Plover, 1996). Choose a Format Journal that uses this system. Do not cite sources by number, i.e., (1). If a figure from another author is used or adapted, cite the source in the figure caption. Generally, follow the format in the Format Journal when developing the Literature Cited section. Use the same system of abbreviations, punctuation, underlining, and italics as the Format Journal. There is one exception (mainly applies to chemistry Format Journals): if the Literature Cited section of the Format Journal does not list the title of an article, make sure to include it to enhance the usefulness of the citations to readers.

## Format of the Thesis Proposal Title Page

TITLE SHOULD APPEAR IN ALL CAPITALS AND BE CENTERED

a research proposal prepared by  
YOU A. STUDENT  
MONTH, YEAR  
for  
The Graduate Committee  
Department of Engineering  
Texas A&M University-Corpus Christi  
Corpus Christi, Texas

Approved:

---

Name, Chairperson Date

---

Name, Co-Chair/Member Date

---

Name, Member Date

## SECTION V. COURSE OFFERING SEQUENCE

### Planned Course Offerings

Year 1		
FALL	SPRING	SUMMER
ENGR 5101 (C) Engineering Seminar I ENGR 5401 (C) Engr. Math. And Analysis ENGR 5302 (C) Num. Met. For Engrs. ENGR 5305 (C) Exp. Methods for Engineers  (11 SCH)	ENGR 5102 (C) Engineering Seminar II  Three Discipline-Specific Prescribed Electives (PE) (9 SCH)  (10 SCH)	,Elective or Prescribed Elective  or  ENGR 5311 Thesis Research  (3 SCH (optional))
Year 2		
FALL	SPRING	SUMMER
<p><b><i>Thesis Option:</i></b>                      ENGR 5311                      Thesis Research                       Two Electives                       (9 SCH)</p> <p><b><i>Non- Thesis Option:</i></b>                        Three Electives                       (9 SCH)</p>	<p><b><i>Thesis Option:</i></b>                      ENGR 5312                      Thesis                       (3 SCH)</p> <p><b><i>Non-Thesis Option:</i></b>                      ENGR 5313                      Capstone Project                       One Elective                       (6 SCH)</p>	

Note: The actual elective and prescribed elective courses offered may differ every semester. Some elective courses may not be offered during the student's time within the program. The order of some courses may also be modified by the department to meet the needs of the constituents.

## GENERAL INFORMATION

This section of the handbook includes standardized information about rules and policies pertaining to graduate education at Texas A&M University-Corpus Christi. It is not intended to be comprehensive. Students are strongly encouraged to read the sections of the catalog pertaining to graduate students, which will provide more detail and additional topics that may impact them. Students will also find information about graduate degree program.

## Graduate Admissions

To be admitted to a program of graduate study, an applicant must hold a bachelor's degree from an accredited institution of higher education in the United States or an equivalent foreign institution. Decisions concerning admission to graduate study are based on all admission criteria. To be considered for a graduate program, a minimum last 60-hour GPA of 2.5 is required. Some programs may have higher GPA requirements; review specific program information in the graduate catalog or elsewhere in this handbook. All applications must be made via the following web site: <http://gradschool.tamucc.edu>. For complete information, see the Catalog, [Graduate Admissions section](#).

Graduate students should be aware of their enrollment status, as it may impact financial aid, veteran's benefits, or other important aspects of graduate life. In addition, international students have specific requirements about enrollment status. Enrollment status for graduate students is as follows:

Full-time graduate student	Fall or spring term = 9 hours Combined summer terms = 6 hours
Three-quarter-time graduate student	Fall or spring term = 7 hours Combined summer terms = 5 hours
Half-time graduate student:	Fall or spring term = 5 hours Combined summer terms = 3 hours

## Continuous Enrollment

The University does not have a continuous enrollment policy for master's students. However, students should be aware of their own program's requirements, which may differ from general University requirements. Master's students should also know that if they do not attend for two years, they will be required to reapply to the University. Students should consider applying for a leave of absence (see below), especially if the time-to-degree and recency of credits requirements will be impacted by a needed absence.

## Leave of Absence

Students experiencing life changing or catastrophic events should consult with their program coordinator and/or department chair and request a [Leave of Absence](#) in writing from the College of Graduate Studies using the [Request for Leave of Absence form](#). A student who is in good standing may petition for a leave of absence of no more than two full academic terms. The maximum number of leave of absence requests permitted in a program is two. A request for a leave of absence requires approval in advance by the faculty advisor, Program Coordinator, College Dean, and Graduate Dean. If the Graduate Dean approves the petition, the registration requirement is set aside during the period of time of the leave. Students should be aware that

leaves of absences require suspension of all activities associated pursuit of the degree. See the catalog for more information.

### **Maximum Course Load**

Graduate students may not register for more than 12 hours in a regular semester, 6 hours in a single session of summer school, or 12 hours in the combined summer session (not including Maymester) without the approval of the appropriate college dean. See the [Maximum Course Load](#) section in the catalog.

### **Repetition of a Course**

Graduate students may retake a maximum of two courses during graduate study at the University. Each course may be repeated only once. Some courses may be repeated for multiple credit if those courses are so designated in the course description and approved by the faculty or program advisor as designated by their college. Complete catalog information may be found in the [Graduate Academic and Degree Requirements](#) section of the catalog.

### **Time Limit to Degree**

The requirements for a master's degree at Texas A&M University-Corpus Christi must be completed within seven years subsequent to admission to the program. The seven-year period begins the first semester of enrollment and is calculated from the date of degree conferral. Credit that is more than seven years old will not be counted toward a master's degree. Exceptions will require **strong** justification in writing from the student requesting the exception as well as submission of a revalidation plan. Credits earned at another university are not eligible for an exception. Written approval from the major department chairperson, the dean of the college offering the degree, the Graduate Dean, and the Provost are required. See the revalidation process below.

### **Academic Requirements for Graduate Work**

**Good Standing.** Graduate Students, including degree-seeking, certificate-seeking, and non-degree-seeking students are considered in “good academic standing” if they maintain a minimum 3.0 grade point average (GPA) on all graduate course work and earn a grade of S (Satisfactory), IP (In Progress, or CR (Credit) on all course work that does not affect GPA. A complete discussion of academic requirements including but not limited to scholastic probation and enforced withdrawal may be found in the [Graduate Academic and Degree Requirements](#) section of the catalog. For information regarding the effect of scholastic probation and enforced withdrawal, see the [Financial Assistance Suspension Policy](#) in the Tuition, Fees, & Financial Assistance section of the catalog.

### **Academic Integrity**

Texas A&M University-Corpus Christi students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, which include but are not limited to illicit possession of examinations or examination materials, falsification, forgery, plagiarism, or

collusion in any of these behaviors. All students should familiarize themselves with the full Academic Integrity Policy as well as the processes and procedures used to address violations thereof. You can find additional information in the [Academic Integrity](#) section of the catalog. Students can also access University Rules and Procedures [13.02.99.C0.04](#): Student Academic Misconduct Cases.

### **Additional Information**

Information, policies, and procedures about tuition, fees, financial assistance, scholarships, and other topics important to graduate students can be found in the catalog. In addition to the catalog, web pages for offices and services on campus provide expanded information, forms, and contact names/phone numbers. Some of those webpages include the following:

[College of Graduate Studies](#)

[Office of Student Financial Assistance](#)



## SECTION VI. APPENDICES

### Appendix 1: New Graduate Student Checklist

This handbook is intended to be read in conjunction with the Graduate Catalog: <https://catalog.tamucc.edu/graduate>, the College of Graduate Studies Handbook: <https://www.tamucc.edu/grad-college/current-students/assets/documents/masters-student-handbook.pdf>, and <https://catalog.tamucc.edu/graduate/engineering/masters/engineering-ms/>

- Obtain and read a copy of the University Graduate Catalog. Remember, this is your contract!
- Acquire your University email address.
- Join the ENGR email list-serv. Many important university, program, and job announcements go across on this email list-serv. To join, visit <https://listserv.tamucc.edu/mailman/listinfo/engr-grad-students-list>
- Log into SAIL to register for courses, pay your tuition bill and verify that your contact information is correct.
- Verify that you have a computer that meets the requirements for the program.
- Successfully log into Blackboard on the Island Online.
- Contact the graduate advisor and academic advisor to discuss your degree plan.
- (For thesis option) Form the advisory committee

## Appendix 2: MS in Engineering Program - First-Year Checklist

- Meet/communicate with MS in Engineering Graduate Program Coordinator and/or Graduate Academic Advisor prior to enrolling for first semester classes.
- Form Graduate Advisory Committee (GAC) by end of first semester.
  - ❖ Speak with individual faculty about research interests.
  - ❖ Committee must include at least 3 Engineering graduate faculty. (You may have additional committee members if you choose).
  - ❖ Decide on a primary advisor (Committee Chair)
  - ❖ Form and meet GAC *no later than* end of second semester.
- Prepare the Tentative Degree Plan with the GAC no later than by end of second semester.
  - ◆ Leveling coursework (if applicable)
  - ◆ Prescribed elective coursework
  - ◆ Free elective coursework
  - ◆ Thesis topic
  - ◆ Formulation of Research Prospectus
- Meet GAC at least semi-annually to update progress.
- Meet/communicate with MS in Engineering Graduate Program Coordinator for updates and submission of required documents.

## Appendix 3: MS in Engineering Program Degree Requirements Checklist

### I. Coursework

- Leveling coursework (if applicable) as specified by GAC in admission letter.
- Tentative Degree Plan and Research Prospectus approved by GAC and Department, and copy to the College of Engineering Dean's Office (Academic Advisor) by end of second semester.
  - ❖ Minimum 33 credit hours for Thesis track and 36 hours for non-thesis track
  - ❖ 12 hrs Core Courses
  - ❖ 9 hrs Prescribed Electives (Based on Concentration Area)
  - ❖ 6 hours of Free Electives (Thesis Option) / 12 hours of Free Electives (Non-Thesis Option)
  - ❖ 6 hrs thesis research + thesis (Thesis Option) / 3 hrs Capstone Project (Non-Thesis Option)
  - ❖ 3.0 minimum GPA
  - ❖ CGS will send the final degree plan to the committee chair for approval in graduating semester.
  - ❖ Department receives a copy of approved final degree plan.
  - ❖ Deadline to apply for graduation can be found at:  
<https://www.tamucc.edu/academics/calendar/index.html>

### II. Thesis Proposal

- Independent, detailed, original, systems-based inquiry
- Thesis Research Proposal
  - ❖ Modified from Prospectus with GAC input.
  - ❖ Submit draft to Committee Chair for approval.
  - ❖ Present to GAC for approval signatures.
  - ❖ Signed version submitted to College Dean, Copies to College Advisor, Chemistry Administrative Assistant, and GAC members.
  - ❖ Should be approved by end of first year of graduate study.
  - ❖ Proposal oral defense must occur no later than next to last long semester of graduation.

### III. Thesis

- Data collection and analysis completed.
- Choose format and prepare according to guidelines.
  - ❖ Multiple iterations of editing
  - ❖ With Chair approval, provide copies to GAC *at least* 1 month prior to final defense.
  - ❖ Committee returns corrected versions within 2 weeks.
  - ❖ Review and incorporate suggested changes along with Chair.
  - ❖ Additional review by GAC may be required.
- Submit final corrected version of Thesis to CGS following successful defense.
  - See CGS Master's Student Handbook for instructions

#### **Appendix 4: Thesis Defense**

- Must be registered for credit for semester in which the final defense takes place.
- Apply for graduation in College of Engineering Dean's Office (Academic Advisor) by published deadline. The student must complete all requirements for the degree at least three weeks prior to the end of the semester in which the degree will be conferred.
- Contact GAC to schedule Thesis Seminar and Final Defense
  - Must be held at least six weeks prior to graduation.
  - Will be open to the public
- Submit formal seminar announcement to committee chair at least 2 weeks in advance
- Schedule rooms for seminar and defense
- Post announcement to relevant Listservs at least 1 week in advance
- Email copy to College of Engineering Dean's Office (Academic Advisor) and Department (Program Coordinator)
- Present Thesis Seminar and stand for the Final Defense (All GAC members must be present)
- Complete all requirements for the degree at least three weeks prior to the end of the semester in which the degree will be conferred.

## **Appendix 5: Format of the Thesis Defense Announcement**

Thesis Defense Announcement  
MS in Engineering Program  
DEPARTMENT OF ENGINEERING  
TEXAS A&M UNIVERSITY-CORPUS CHRISTI

SUBJECT: Official Title of Your Thesis

SPEAKER: Student's Name

CHAIR: Advisor's Name

COMMITTEE: Committee Members

DATE: [Insert Day, month date, year]

TIME: 0:00 a.m./ p.m.

PLACE: Building/Room:

### **ABSTRACT**

The abstract of thesis should appear here (shortened version if necessary). An abstract of 50-200 words length is recommended for inclusion in the Graduate Seminar Notice.

[NOTE: Students should post this notice electronically to faculty members and graduate students involved in the MS in Engineering program and other graduate programs. Ensure an email of the announcement is sent to the Office of the Dean of College of Engineering and Computer Science (Academic Advisor or Administrative Assistant), and MS in Engineering Program Coordinator and Administrative Assistant at the Department of Engineering.

This handbook is intended to be read in conjunction with the Graduate Catalog: <http://catalog.tamucc.edu/> and the College of Graduate Studies Handbook [http://gradcollege.tamucc.edu/current\\_students/masters\\_students.html](http://gradcollege.tamucc.edu/current_students/masters_students.html)

## Appendix 6: Degree Plan Non-Thesis Option

TEXAS A&M UNIVERSITY-CORPUS CHRISTI  
 COLLEGE OF ENGINEERING AND COMPUTER SCIENCE  
 MASTER OF SCIENCE IN ENGINEERING  
 Degree Plan – Non-Thesis Option

Catalog: 2024-2025

Name \_\_\_\_\_ Banner ID# \_\_\_\_\_ Previous Degree \_\_\_\_\_ Discipline \_\_\_\_\_  
 School \_\_\_\_\_ Admission Term \_\_\_\_\_

**Concentration Area** (Civil, Electrical, Industrial or Mechanical Engineering)  
 Project Title \_\_\_\_\_

**Required Courses (15 Hours)**

Course	Title	Grade	SCH	YR/SEM
<u>ENGR 5101</u>	<u>Engineering Seminar I</u>	_____	<u>1</u>	_____
<u>ENGR 5102</u>	<u>Engineering Seminar II</u>	_____	<u>1</u>	_____
<u>ENGR 5302</u>	<u>Numerical Methods for Engineers</u>	_____	<u>3</u>	_____
<u>ENGR 5305</u>	<u>Experimental Methods and Design in Engineering</u>	_____	<u>3</u>	_____
<u>ENGR 5401</u>	<u>Engineering Mathematics and Analysis</u>	_____	<u>4</u>	_____
<u>ENGR 5313</u>	<u>Capstone Project</u>	_____	<u>3</u>	_____

**Prescribed Electives** (Based on Concentration Area) **(9 hours Minimum)**

(X represents only one of C, I, E or M)

<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____
<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____
<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____

**Free Electives (12 hours Minimum)** (X represents any of C, I, E or M)

<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____
<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____
<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____
<b>XEEN 53xx</b>	_____	_____	<u>3</u>	_____

Additional courses (required/substituted with committee and department approval)

_____	_____	_____	-	_____
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**Requirement Summary**

GPA (Min 3.0) \_\_\_\_\_

Transfer Hours (6 Max) \_\_\_\_\_

**TOTAL HOURS ( Minimum 36 )** \_\_\_\_\_

Approved by:

GAC Chair \_\_\_\_\_

Com. Member \_\_\_\_\_

Com. Member \_\_\_\_\_

Student \_\_\_\_\_

Program Coordinator or Department Chair \_\_\_\_\_

## Appendix 7: Degree Plan Thesis Option

TEXAS A&M UNIVERSITY-CORPUS CHRISTI  
 COLLEGE OF ENGINEERING AND COMPUTER SCIENCE  
 MASTER OF SCIENCE IN ENGINEERING  
 Degree Plan – Thesis Option

Catalog: 2024-2025

Name \_\_\_\_\_ Banner ID# \_\_\_\_\_ Previous Degree \_\_\_\_\_ Discipline \_\_\_\_\_  
 School \_\_\_\_\_ Admission Term \_\_\_\_\_

**Concentration Area** (Civil, Electrical, Industrial or Mechanical Engineering)  
 Thesis Title \_\_\_\_\_

**Required Courses (18 Hours)**

Course	Title	Grade	SCH	YR/SEM
<u>ENGR 5101</u>	<u>Engineering Seminar I</u>	_____	1	_____
<u>ENGR 5102</u>	<u>Engineering Seminar II</u>	_____	1	_____
<u>ENGR 5302</u>	<u>Numerical Methods for Engineers</u>	_____	3	_____
<u>ENGR 5305</u>	<u>Experimental Methods and Design in Engineering</u>	_____	3	_____
<u>ENGR 5401</u>	<u>Engineering Mathematics and Analysis</u>	_____	4	_____
<u>ENGR 5311</u>	<u>Thesis Research</u>	_____	3	_____
<u>ENGR 5312</u>	<u>Thesis</u>	_____	3	_____

**Prescribed Electives (Based on Concentration Area) (9 hours Minimum)**

(X represents only one of C, I, E or M)

<u>XEEN 53xx</u>	_____	_____	3	_____
<u>XEEN 53xx</u>	_____	_____	3	_____
<u>XEEN 53xx</u>	_____	_____	3	_____

**Free Electives (Based on Concentration Area) (6 hours Minimum)**

(X represents any of C, I, E or M)

<u>XEEN 53xx</u>	_____	_____	3	_____
<u>XEEN 53xx</u>	_____	_____	3	_____

Additional courses (required/substituted with committee and department approval)

_____	_____	-	_____
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**Requirement Summary**

GPA (Min 3.0) \_\_\_\_\_

Transfer Hours (6 Max) \_\_\_\_\_

**TOTAL HOURS ( Minimum 33 )** \_\_\_\_\_

GAC Chair \_\_\_\_\_  
 Com. Member \_\_\_\_\_  
 Com. Member \_\_\_\_\_  
 Student \_\_\_\_\_  
 Program Coordinator \_\_\_\_\_