COMPUTER SCIENCE
DOCTORAL STUDENT HANDBOOK

Academic Year 2025-2026



COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

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This handbook is intended to be read in conjunction with the Graduate Catalog, https://catalog.tamucc.edu/graduate/, and the Office of Graduate Education Graduate Student Handbook found here: https://www.tamucc.edu/academics/graduate-education/doctoral-students.php.

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SECTION I: COMPUTER SCIENCE PROGRAM

Introduction

This handbook provides guidance to students applying for and enrolled in the Computer Science (COSC) doctoral degree (Ph.D.) program at Texas A&M University-Corpus Christi (TAMU-CC). It contains information about the requirements for successfully completing the degree, the course of study, selecting an advisor and a graduate committee, choosing a dissertation research topic, admission to degree candidacy, the dissertation defense, and the final oral examination. This handbook should be used in conjunction with the Graduate Catalog: http://catalog.tamucc.edu and the procedures outlined in the Office of Graduate Education (OGE) Graduate Student Handbook available at *https://www.tamucc.edu/academics/graduate-education/doctoral-students.php*. The COSC Ph.D. Handbook outlines requirements specific to the COSC doctoral program beyond those described in the Graduate Catalog and the OGE Graduate Student Handbook. The OGE Graduate Student Handbook also contains detailed instructions for preparing the dissertation manuscript.

An updated version of the COSC Ph.D. student handbook will be published each academic year. The handbook requirements in effect at the time of entry into the program will apply. TAMU-CC Graduate Education policies and procedures take precedence over any conflicting provisions in this handbook.

About a Ph.D. in Computer Science (COSC)

The Ph.D. program in Computer Science is designed to cultivate experts in the expansive domain of computer science, anchoring students in rigorous theoretical and practical concepts. For those with a keen interest in spatial analysis and the dynamic interplay between location and computational data, the program offers an optional specialization in Geospatial Informatics. For more information about the incentives of the COSC Ph.D. program, please visit https://www.tamucc.edu/programs/graduate-programs/computer-science-phd.php.

The **learning outcomes** for our graduates are to:

- Produce innovative research that advances theory or methodology in computer science and optionally in geospatial informatics.
- Advance the field by creating new algorithms and applications that address computational research challenges.
- Develop the professional skills necessary to present research outcomes orally to a professional or general audience as well as in writing for peer reviewed journals and conference proceedings.

The COSC Ph.D. Student

A prospective student who wishes to pursue the COSC Ph.D. is expected to have adequate preparation in computer science. For computer science, this preparation must include successful completion of coursework in a high-level programming language. Students pursuing the geospatial

informatics specialization are expected to have adequate preparation in geospatial science. In mathematics, students are expected to have successfully completed coursework in calculus plus one additional junior level or higher mathematics course such as linear algebra, numerical analysis, or applied probability and statistics. Students admitted into the program without adequate preparation may be required to take leveling courses to fill knowledge gaps in the aforementioned areas.

The COSC Ph.D. program welcomes students from backgrounds in computer science, geospatial science or geomatics, engineering, and mathematics provided the student has adequate coursework preparation in computer science and programming.

Graduate study provides advanced, specialized training that strengthens academic and professional competence by broadening scientific horizons as well as developing a specific expertise. Graduate students must assume greater responsibility and exercise more individual initiative than was necessary as an undergraduate. The graduate faculty emphasize productive research, frequently employ seminar methods, and expect active class participation. To be successful in the doctoral program, students must display commitment to independent study, must become familiar with past and current research, and must relate ongoing research to the investigations of other scholars.

Computer Science Program Staff



Chandra N. Sekharan, Ph.D.
Coordinator, Computer Science Doctoral Program
Professor of Computer Science
CI 341
(361) 825-2478, chandra.sekharan@tamucc.edu
- Administer and support the COSC Ph.D. program
- Collaborate with faculty on all issues related to the program
- Collaborate with graduate students to ensure their success



Dulal Kar, Ph.D.
Department Chair of Computer Science
Professor of Computer Science
College of Engineering and Computer Science
CI 341
(361) 825-5878, dulal.kar@tamucc.edu
- Administer department that hosts the COSC Ph.D. program
- Coordinate course scheduling and teaching assignments for faculty



Crystal Trevino, Gabriela Reyes, Theresa Garcia Ruiz
Graduate Academic Advisors
Faculty Center Suite 104
(361) 825-3453, academicadvising@tamucc.edu
▪ Advise students on program degree requirements
▪ Serve as a liaison for students regarding required documentation throughout the degree program
▪ Coordinate with students on their degree plans.

Advisors are assigned based on the student's last name; schedule a meeting here.



Menda Eulenfeld,
Administrative Associate III
CI 340, Department of Computer Science
(361) 825-2474, menda.eulenfeld@tamucc.edu
▪ Assist COSC doctoral program coordinator and faculty
▪ Create independent studies and research courses for Ph.D. students
▪ Assist COSC students for travel arrangement and supply purchasing

List of COSC faculty can be found at (not all are Ph.D. supporting faculty):
https://www.tamucc.edu/engineering/cs-roster.php?program=csci#faculty

Program Committees

Steering Committee

The Steering Committee serves as an internal advisory body for the Computer Science (COSC) Ph.D. program. It reviews, evaluates, and proposes major changes to the degree plan, course requirements, student learning outcomes, program objectives, assessment processes, and program policies and procedures. Major proposed changes require review, discussion, and approval by a majority vote of the department's COSC Ph.D. core faculty.

The committee consists of at least three COSC Ph.D. core faculty members, including the program coordinator, with at least two representatives from Computer Science and at least one from Geospatial Science. The coordinator counts toward their program's representation and serves as committee chair but may designate another committee member to serve as chair. A committee size of three to five members is recommended. The committee chair may approve additional members, provided they hold COSC Ph.D. core faculty status, including faculty affiliated with the Department of Engineering.

Members, including volunteers, are appointed by the program coordinator or assigned by the department chair. The coordinator reviews membership and renews appointments as appropriate each academic year.

Scholarship and Awards Panel

The Scholarship and Awards Panel (SAP) evaluates applications and awards program-supported graduate research assistantships (RAs), scholarships, fellowships, and other competitive student

funding for the Computer Science (COSC) Ph.D. program. Award decisions are typically based on a review of applications against the criteria for each award and a vote by the panel. The panel typically consists of four COSC Ph.D. core faculty members, including the program coordinator, who serves as chair or designates another panel member to serve in that role. Members are appointed by the coordinator, who reviews membership and renews appointments as appropriate each academic year and as needed.

The program coordinator typically votes only to break a tie. Panel members whose students are under consideration must recuse themselves from voting on those awards. The coordinator may appoint a temporary replacement from the COSC Ph.D. core faculty when needed.

Get Connected

Most official college and program information for students is distributed on listservs. Students should be automatically added to the COSC Ph.D. program student listserv upon enrollment. To ensure you are subscribed, students can manually join the "cs-PhD-student" listserv and other listservs by going to https://listserv.tamucc.edu/mailman/listinfo. All new and current COSC Ph.D. students should ensure they are subscribed to the following listservs below:

List Address	Description
cs-phd-student@listserv.tamucc.edu	COSC Ph.D. Students
coecs-grad@listserv.tamucc.edu	College of Engineering and Computer Science

SECTION II: ADMISSION DETAILS

COSC Ph.D. Admission Criteria

1. Students seeking admission into the COSC Ph.D. program must first identify a faculty member willing to serve as their graduate advisor. ***Applicants will not be admitted to the program without an identified graduate faculty advisor willing to advise the student once admitted into the program.*** Students can review the program faculty at https://www.tamucc.edu/programs/graduate-programs/computer-science-phd.php and contact respective faculty in their area of research interest to discuss their willingness to serve as an advisor. Students can also contact the COSC Ph.D. program coordinator for information about the program and suggested advisors.

2. Students seeking admission to TAMU-CC for graduate study must submit a complete admission application form, a nonrefundable application fee, official transcripts from all undergraduate and graduate coursework, and any additional documents as required by the program the student is applying to. All documents must be submitted to the Office of Recruitment and Admissions by the appropriate deadline. Visit the following two links for instructions on how to submit required documents:
   https://www.tamucc.edu/programs/graduate-programs/computer-science-phd.php
   https://gradcollege.tamucc.edu/new_students/application_process.html

Application Form and Submission

To apply for the COSC Ph.D. program, complete the online Apply Texas Application form found on the Computer Science Ph.D. website at:
https://www.tamucc.edu/programs/graduate-programs/computer-science-phd.php

Specific information on University criteria, application procedures, fees, and additional requirements for international applicants are found in the OGE Graduate Student Handbook.

Program Specific Application Requirements

Below is a summary of supporting documents required by the COSC Ph.D. program:

- Completed university graduate application form and paid application fee.
- Transcripts from regionally accredited institutions (international students will be required to submit relevant international transcripts).
- An essay (500 - 1,000 words) discussing why you are seeking admission to the program and what your research plans are.
- A curriculum vitae.
- Three letters of recommendation.
  Send a recommendation request
  Upload letter of recommendation

- Any relevant supplemental material such as resumes, cover letters, or previous publications.
- Applicants must indicate which faculty member has agreed to serve as the Applicant's graduate advisor.
- International students must submit TOEFL or IELTS scores and additional documents to the Office of Recruitment and Admissions. https://www.tamucc.edu/admissions/graduate-students/index.php

*To be considered official, all required postsecondary academic records must be submitted directly from the registrar's office and bear the seal and signature of the registrar of the institution. In some foreign countries, the controller of examinations or principal may certify academic records. Official English translations, not interpretations, are required from most countries.

A student entering the program is expected to have adequate preparation in computer science. For students interested in pursuing the geospatial informatics specialization, students should have adequate preparation in geospatial science or geomatics. In mathematics, students must have successfully completed coursework in calculus plus one additional junior level or higher mathematics course such as linear algebra, numerical analysis, or applied probability and statistics.

Students who do not have adequate preparation may be required to take leveling courses and/or additional course electives in any missing subjects to fill knowledge gaps. Leveling coursework does not count towards the total credit hours required for the degree. All leveling courses must be completed with a grade of "B" or better. While taking leveling courses, a student can take regular courses that can be counted towards the degree.

It is the student's responsibility to make sure that the application is complete by the deadline to assure full consideration. Acceptance into the COSC Ph.D. program is competitive and based on consideration of all application materials. Students accepted into the program will typically have demonstrated an ability to succeed in an academically rigorous environment through high GPA and GRE scores. Relevant life experiences may also provide a substantial basis for consideration.

Application Deadlines

The COSC Ph.D. program has two types of deadlines: 1) priority deadlines and 2) last deadlines. All students should strive to meet the priority deadline because it is used to make decisions regarding funding or assistantships. All applications after the priority deadline and considered to be "late" applications fall under the last deadlines category. COSC Ph.D. program deadlines are the same for international and domestic students.

COSC Ph.D. APPLICATION DEADLINES			
Domestic/International Students	**Fall**	**Spring**	**Summer**
Priority deadline to receive complete applications	April 30	August 1	Not Offered
Domestic/International Students	**Fall**	**Spring**	**Summer**
Last date for receipt of complete applications	July 15	November 15	Not Offered

Once the program is notified by Graduate Admissions that an application is complete, the COSC Ph.D. program faculty review the application, hold a comment and discussion period, and then conduct a vote for admission or rejection of the applicant.

Upon acceptance or rejection, the student will be notified by Graduate Admissions.

Funding Opportunities

Teaching assistantships, graduate research assistantships, fellowships, or scholarships may be available to graduate students admitted as degree-seeking students who maintain full time graduate status. Applicants must apply separately to each funding opportunity; a list can be found at https://gradcollege.tamucc.edu/funding/assistantships.html. All materials requested for evaluation must be submitted to the office indicated on that form. For full consideration for these opportunities, the deadline for submitting applications is February 1 for the following academic year. Admission to the program is decided separately from funding and students must first be accepted into the program before financial awards can be considered. Students can also refer to here for more information about funding: https://www.tamucc.edu/engineering/student-information/graduate-funding.php.

Teaching Assistantships

Teaching assistantships are available each year through the College of Engineering and Computer Science; see https://gradcollege.tamucc.edu/funding/assistantships.html.

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.

Research Assistantships

A limited number of research assistantships are available to students through research institutes or centers, and individual faculty members; consult with the program coordinator, the institute or center directors, and individual faculty members (i.e, your identified advisor) to identify these opportunities. Some graduate research assistantships are administered through the College of Engineering and Computer Science by the COSC Ph.D. program; refer to https://www.tamucc.edu/engineering/student-information/graduate-funding.php.

Eligibility

Students holding COSC Ph.D. assistantships must meet the program's full-time enrollment requirement: at least 9 graduate credit hours in fall and spring and 3 in summer, typically in the 10-week summer session. 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. Check the Office of Graduate Excellence website for additional funding opportunities https://www.tamucc.edu/research/graduate-excellence/funding/index.php.

Amounts

There is a consistent remuneration structure for all Fellowships and Assistantships that is commensurate with education level and progress through the Ph.D. program.

Education Level	Monthly Stipend
B.S. and < 36 graduate hours	$1,600
M.S. or ≥ 36 graduate hours	$2,000
Ph.D. Candidate (admitted to candidacy)	$2,200

Out-of-State Tuition Waiver

Graduate Assistants are eligible for a tuition waiver that reduces tuition and fees to Texas Resident rates. However, this must be for the semester in which they hold the assistantship appointment, must work in a half-time (20 hours a week) position, and maintain a course load of 9 credit hours during the fall and spring semesters and 3 credit hours during the summer, typically in the 10-week summer session, to be eligible for a waiver. To apply for a tuition waiver, visit the Office of Graduate Excellence website at https://www.tamucc.edu/research/graduate-excellence/funding/assistantships.php#teaching.

Cost of Education

Graduates wanting to estimate their financial commitment can visit the following website to evaluate potential cost of attendance: https://www.tamucc.edu/cost-and-aid/cost-of-attendance.php.

Doctoral Orientation

Orientation is available every fall and spring semester. For additional information on this event, please visit https://www.tamucc.edu/admissions/orientation/doineedorientation.php. A special orientation session is available for doctoral students upon request by the department/program coordinator.

Topics covered include:

- The Office of Graduate Education
- The big picture of doctoral degrees
- Getting to the doctoral degree

SECTION III: ACADEMIC PROGRESSION

Enrollment Status

For COSC Ph.D. assistantship and fellowship eligibility, full-time enrollment is at least 9 graduate credit hours in fall and spring and 3 in summer, typically in the 10-week summer session. University enrollment classifications for other purposes are described in Section V.

In addition, all COSC Ph.D. students must follow University rules governing graduate studies including, but not limited to: residency, continuous enrollment, recency of credit, leave of absence, transfer credit, degree plans, grade point average, scholastic probation, enforced withdrawal, out-of-state tuition waivers, and the Texas 99-hour rule. All of these rules are described in the Office of Graduate Education Graduate Student Handbook and can be found at: https://www.tamucc.edu/academics/graduate-education/doctoral-students.php.

Fulfilling COSC Ph.D. Program Degree Requirements

Advancement in the degree follows two periods: pre-qualification and post-qualification. The progression to a degree consists of the following steps or milestones:

A. Pre-Qualification
   1. form a committee
   2. create a degree plan
   3. develop a research prospectus
   4. present prospectus to the committee
   5. develop a research proposal
   6. conduct proposal seminar
   7. pass comprehensive/qualifying exams

B. Post-Qualification
   1. conduct research
   2. write dissertation
   3. defend dissertation

Refer to **Appendix 3** for a checklist for fulfilling the degree requirements.
Refer to **Appendix 4** for the required timeline for completing the degree requirements.

Doctoral Program Forms

Each step of the progression in the doctoral program is accompanied by a requisite form. Please use the checklist below for a timely submission of required forms. Always use the current doctoral forms and submission instructions. These can be found at Graduate Education Forms webpage: https://www.tamucc.edu/academics/graduate-education/forms/index.php.

In addition, the forms webpage also includes templates for the dissertation title page, copyright page, and committee member page.

Submit forms through the individual links and instructions on the Office of Graduate Education Forms webpage. Forms available as PowerForms are routed electronically for the required review, approval, and signatures.

If you have questions or require additional information, contact the Office of Graduate Education at (361) 825-2985 or sean.britt@tamucc.edu.

Directions: Please use the forms list below to ensure timely submission of required forms. These forms can be found at: https://www.tamucc.edu/academics/graduate-education/forms/index.php. *Follow the submission instructions provided for each form.*

Form	**Timeline**
Degree Plan (signed)	9 months of entering the program
Form B: Comprehensive Examination and Advancement to Candidacy Report	36 months of entering the program for a M.S student, 48 months for a B.S. student
Form C: Doctoral Dissertation Advisory Committee Appointment Form	9 months of entering the program
Form D: Doctoral Dissertation Proposal Hearing Request Form	2 weeks prior to proposal seminar
Form E: Preliminary Agreement to Schedule the Dissertation Defense/Final Examination	8 weeks prior to graduation
Form F: Dissertation Defense and Written Dissertation Report	5 days following defense
Form G: Graduate Faculty Representative Report	5 days following defense
Form H: Doctoral-Dissertation Committee Member Change Request Form	As needed
Form I: Graduate Degree Plan Exceptions Form	As needed
Form K: Doctoral Request for a Leave of Absence	As needed
Form L: Catalog Change Request Form	As needed

Graduation Deadlines

Students must apply for graduation through SAIL by the published deadline. Follow the Registrar's instructions and consult the assigned graduate academic advisor in the College of Engineering and Computer Science for assistance.

In order to graduate, a series of deadlines must be met. These deadlines are posted by the Office of Graduate Education at https://www.tamucc.edu/academics/registrar/academic-calendar/doctoral-dates.php.

Commencement

For dates, times and location of the commencement ceremonies please visit http://commencement.tamucc.edu/.

The Graduate Advisory Committee

After admission and enrollment in the COSC Ph.D. program, students should work with their faculty advisor to form a graduate advisory committee (GAC), also referred to as the doctoral dissertation committee, by their second long semester in the program. The faculty advisor chairs the GAC and serves as the dissertation chair, referred to throughout this handbook as the committee chair. The committee guides the student's research and progress toward degree milestones.

Under the direction of the committee chair, the graduate advisory committee reviews and approves the student's degree plan, helps the student formulate a dissertation topic and research plan, and guides the student's research. The committee also approves the dissertation proposal and final manuscript and administers the qualifying examination and final dissertation defense/oral examination. The committee chair supervises the dissertation research, including preparation of the manuscript. The chair and committee members also serve as mentors throughout the degree program.

The committee's composition and size should reflect the scope of the intended research and be determined in consultation with the committee chair. Faculty members are not obligated to serve on or chair a committee and may decline based on workload, incompatible research interests, or other relevant considerations.

The COSC Ph.D. program requires at least four committee members, excluding the Graduate Faculty Representative (GFR). At least two of these members, including the committee chair, must be COSC Ph.D. core faculty members. A typical committee may include three COSC faculty members and one faculty member from outside the program, with the GFR serving as an additional member. All members, including external, must meet applicable university graduate faculty status eligibility requirements for their committee roles.

Proposed members internal to the university, but outside the COSC Ph.D. program require the committee chair's approval, relevant background and research expertise, and university eligibility for doctoral committee service. The program coordinator may discuss concerns about proposed members with the committee chair. The committee chair may request an external member outside of the university by submitting a justification and supporting documentation to the program coordinator, who coordinates any required graduate committee membership approval through the university's designated process. An eligible individual from TAMU-CC or another accredited institution may serve as co-chair with the committee chair's approval and any required university approvals. Doctoral Form C must be submitted to request formal committee appointment. Current forms are available on the Graduate Education forms page.

Students should form their committee by their second long semester and meet with the committee no later than the end of their first full year in the program, including the summer term. The first meeting typically includes presentation of the student's research prospectus, discussion of research ideas, and finalization of the degree plan. This meeting schedule does not extend the requirement to file an approved degree plan by the end of the second semester.

Students should remain in regular contact with their committee regarding progress and challenges and should meet with the committee at least annually, regardless of research progress. Students are responsible for coordinating meetings with oversight from the committee chair. They should maintain written records of meetings, including feedback, conclusions, and agreed-upon actions, and follow the chair's guidance on documenting and addressing these items.

If a committee member or chair must be replaced, the student should promptly consult the committee chair or COSC Ph.D. Program Coordinator. The chair or program coordinator will determine whether a change is necessary. Removal or replacement requires agreement from the committee chair and program coordinator and, when required, the department chair, along with submission of Doctoral Form H through the university's designated approval process.

If a dispute arises between a student and a committee member, the student should consult the committee chair. If the dispute involves the chair or remains unresolved, the student should contact the COSC Ph.D. Program Coordinator for guidance. Students may also contact their assigned GFR.

Questions about forming or maintaining the graduate advisory committee should be directed to the COSC Ph.D. Program Coordinator.

Graduate Faculty Representative

A Graduate Faculty Representative (GFR) is appointed to the student's GAC (i.e., dissertation committee) through the university's designated process in addition to the four members required by the COSC Ph.D. program. The GFR serves as an impartial committee member who helps uphold university standards and ensure fair treatment of the student. **The GFR attends and participates in the dissertation proposal hearing and final dissertation defense/oral examination**.

Interactions with Other Graduate Students

Graduate education is not a solitary endeavor. Students must make opportunities to discuss their projects with other graduate students and offer to assist others in the laboratory or field. Beyond generating camaraderie, this will give students a more comprehensive understanding of the many specific issues and problems in computer science or geospatial informatics, expose them to a broad array of research techniques, provide ideas for research problems, and provide opportunities to reciprocate in supporting each other.

Degree Requirements

The COSC Ph.D. degree program consists of six components:

- Coursework
- Research prospectus
- Research proposal and seminar
- Qualifying examination (admission to candidacy)
- Dissertation
- Dissertation defense (research seminar and final defense/oral examination)

Throughout this process, there are three major decision points for the faculty. The first is admission to the program. An affirmative vote of the admissions committee indicates that the faculty believes

you have the potential for advanced study. The second decision point occurs after a student has completed most of the required coursework (and any additional leveling coursework), and the graduate advisory committee administers a proposal defense then candidacy examination. The purpose of this step is to determine if the student has followed through by demonstrating potential for advanced study. After successful completion of the proposal defense and examination, a COSC Ph.D. student becomes a Ph.D. Candidate. The third and final decision point comes when the student completes his/her dissertation. Successful defense of this work leads to the awarding of the Ph.D. degree in Computer Science.

Coursework

Students entering the COSC Ph.D. program with a bachelor's degree must take a minimum of 75 semester credit hours (SCH) beyond the bachelor's degree. For the default Computer Science track, students must take the COSC core courses (12 SCH), one semester of Graduate Seminar (3 SCH), at least 30 hours of approved elective courses, and at least 30 hours of research and dissertation credits.

Students entering the program with a master's degree are required to take a minimum of 57 credit hours beyond the master's degree. For the default Computer Science track, students must take the COSC core courses (12 SCH), one semester of Graduate Seminar (3 SCH), at least 12 hours of approved elective courses, and at least 30 hours of research and dissertation credits.

Students admitted to the program who are lacking foundational coursework in computer science, geospatial science (for geospatial informatics specialization), or math may be required to take leveling courses or additional electives to fill prerequisite knowledge gaps when admitted to the program through consultation with the COSC Ph.D. Program Coordinator and their faculty advisor.

For the Geospatial Informatics specialization requirements and further details, refer to the Graduate Catalog/Computer Science on COSC Ph.D. coursework requirements: https://catalog.tamucc.edu/graduate/engineering/doctoral/geospatial-computer-science-phd/.

Degree Plan

Students should work with their faculty advisor (committee chair) and their assigned graduate academic advisor in the College of Engineering and Computer Science to develop a degree plan that identifies required coursework and supports their planned research. The graduate advisory committee reviews and approves the plan, and the academic advisor records it in the student's online Degree Planner. The approved degree plan must be filed by the end of the second semester in the program through the college's designated submission and approval process. If filing is delayed, the plan must be filed no later than 18 months after initial enrollment in the program.

At this stage, the approved plan is considered the student's preliminary degree plan and may be revised as the student progresses through the program to reflect changes in course selections or availability. Procedures for revising the degree plan are described below.

Students who lack the required preparation in computer science, mathematics, or geospatial science for the geospatial informatics specialization may be required to complete leveling courses

in accordance with program admission requirements. Leveling courses do not count toward the minimum credit hours required for the Ph.D. degree.

The *emphasis area* describes the student's intended research focus within computer science. Students develop this focus in consultation with their faculty advisor, based on their academic interests and proposed dissertation research. The program does not prescribe formal emphasis areas but offers an optional geospatial informatics specialization with specified coursework requirements.

Proposed changes to the approved degree plan must receive the required approvals through the college's designated process before being applied toward degree requirements. Students should work with their assigned graduate academic advisor to ensure that approved changes are documented in the online Degree Planner. When an exception form is required, students should use the current Graduate Degree Plan Exceptions Form available on the Graduate Education forms page.

Before graduation, students should review their degree plan with their faculty advisor and graduate academic advisor to ensure that all approved changes are recorded and all degree requirements have been satisfied.

Course Load Requirements and Restrictions

Unless on an approved leave of absence, students must maintain continuous enrollment in at least 3 semester credit hours each fall and spring semester until all degree requirements are completed. An unapproved lapse in enrollment may require the student to reapply for admission. In addition to continuous registration, *all students must complete a minimum of 9 credit hours each semester in two consecutive long semesters to meet the residency requirement.*

A graduate student may register for up to 12 hours of coursework in a regular semester, or up to 6 hours in a single summer session. Registration for a higher course load requires approval of the Dean of the College of Engineering and Computer Science.

The minimum number of hours required to define your enrollment status may depend on the requirements of any financial aid you receive. In general:

- COSC Ph.D. Fellowships: 9 hrs each during Fall and Spring, 3 hrs during the summer, typically in the 10-week summer session.
- Scholarships or Loans: varies, check with lending agency or entity granting the scholarship.
- Other Teaching Assistantships or Research Assistantships: 9 hrs each during Fall and Spring, 3 hrs during the summer, typically in the 10-week summer session.

Graduate Seminar Course

All students in residence are required to complete one semester of COSC 6302 Graduate Seminar (3 SCH) as part of the COSC curriculum. This course should be taken within the first year of the student entering the program (Fall or Spring) dependent on when the course is offered. This course helps prepare the student for the rigors of conducting doctoral level dissertation research including ethics.

Student Seminars

All students must present a Dissertation Proposal Seminar to fellow students and their graduate advisory committee, preferably no later than their fourth full semester (Fall or Spring) for those entering with a master's degree and sixth full semester for those entering with a bachelor's degree. Refer to Appendix 4 for the program timeline.

All students must also present a Final Dissertation Research Seminar prior to the final dissertation defense/oral examination, which occurs after the seminar. See Research Proposal and Dissertation sections for more information.

Qualifying Examination and Admission to Degree Candidacy

To be admitted to candidacy for the COSC Ph.D. degree you must:

- Have a cumulative GPA and a degree plan GPA of at least 3.0.
- Satisfy the residency requirement (completion of 9 credit hours in two consecutive long semesters).
- Have an approved dissertation proposal on file with the Department of Computer Science.
- Successfully conduct a proposal seminar and defense.
- Complete all formal coursework on the degree plan (excluding dissertation project research hours and COSC 6999).
- Pass the qualifying examination.

Students must advance to candidacy within five years of initial enrollment in the program, unless an extension is approved under applicable university policy, and at least one full semester before the final dissertation defense/oral examination. The final dissertation defense/oral examination cannot be authorized before the student has advanced to candidacy.

Eligibility and Timing

After completing any required leveling courses and satisfying the COSC Ph.D. core curriculum requirements, students must pass a Qualifying Examination to advance to candidacy. The examination may be scheduled when the student is within six semester credit hours of completing coursework, excluding dissertation research hours and COSC 6999. Students entering with an M.S. should complete the examination within 36 months of entering the program. If leveling coursework is not required, students should aim to complete it by the end of their second year. Students entering with a B.S. should complete the examination within 48 months of entering the program.

Students schedule the Qualifying Examination with guidance from their graduate advisory committee chair (faculty advisor) after completing the proposal seminar and defense. Taking the examination before the proposal seminar and defense is not advised and requires approval from the COSC Ph.D. Program Coordinator.

Examination Format and Scheduling

The Qualifying Examination consists of a written exam prepared by each examining graduate advisory committee member, followed by an oral exam administered by the committee as a whole. The GFR does not participate in the Qualifying Examination. For a committee of four examining members, the four written exams must be administered and completed within five consecutive

days, with a separate day normally reserved for each member's exam, unless additional time is approved as described below.

The committee chair oversees examination scheduling and administration and may require the student to coordinate scheduling with committee members. The chair confirms the final schedule and ensures that the student receives each examiner's instructions before the written examination period begins. Each examiner specifies the exam's duration and conditions, including permitted resources, restrictions, and any permitted use of artificial intelligence (AI). Each written exam must allow the student at least four hours and normally no more than eight hours to complete the exam. The committee chair may approve an examiner's justified request for additional time, provided the extension is reasonable and remains within the overall five-day written examination period.

The committee chair may approve extensions beyond the five-day written examination period with advance notification to the program coordinator. Extensions beyond seven consecutive days require compelling justification and the program coordinator's prior approval. All extensions, including those approved by the chair for individual exams, must be documented and preserve fairness and rigor consistent with program precedent established by comparable prior examinations. Extensions must not provide an unfair advantage or lower the standard required to pass. Examples include committees with more than four examining members, take-home data processing or analysis components requiring additional time, or a breadth of material that reasonably warrants a longer examination period.

Examination Content and Scope

Each examining committee member determines the content, questions, and format of their written exam. Questions may address the student's coursework, academic background, emphasis area, dissertation research, and foundational knowledge relevant to the COSC Ph.D. degree, including mathematics and computing. They may also assess critical thinking, problem solving, literature review, synthesis, and the application of knowledge to unfamiliar problems.

Examination content need not be limited to the dissertation topic or material explicitly covered in a particular course. Questions must, however, have a reasonable connection to the student's program of study, academic preparation, proposed research, or the knowledge and skills expected of a COSC Ph.D. student.

Students should consult with each examiner at least one month before the written examination period begins regarding the general scope, preparation expectations, permitted resources, and recommended study materials to allow sufficient time to study and prepare. Examiners should communicate the general scope without disclosing specific examination questions. Students should direct any concerns about examination scope to the committee chair.

The committee chair should obtain and review a brief overview of each examiner's planned scope at least one week before the written examination period begins to assess its consistency with these guidelines. Examiners may choose to share their examination content or specific questions with the committee chair for review and feedback before administering the exam but are not required to do so. Any examination content or questions shared with the chair must remain confidential and

must not be disclosed to the student before the exam. The chair should discuss any concerns with the examiner and may consult the program coordinator for guidance or resolution.

AI Use and Permitted Resources

Each examiner must state in writing, either in the exam instructions or through separate written guidance provided to the student and committee chair before the exam, whether AI tools are permitted and, if permitted, specify the allowed uses and any disclosure or documentation requirements. Unless expressly authorized by the examiner, students may not use generative AI or AI-assisted tools to produce, revise, analyze, or solve examination responses. Permission to use AI on one committee member's exam does not authorize its use on another.

Students must follow the conditions established for each exam. If the permissibility of AI or any other resource is unclear, students are responsible for obtaining clarification from the examiner, with assistance from the committee chair as needed, before using it.

When AI use is permitted, students remain responsible for the accuracy of their responses and must be able to explain and defend their work. Suspected unauthorized use of AI or other resources, or unauthorized collaboration, will be addressed through applicable university academic integrity procedures.

Written Examination Administration and Evaluation

Each examiner should be available during their scheduled exam to clarify questions or instructions. The committee chair may agree to administer another member's exam and must follow the time limits and conditions established by that examiner.

Each completed exam must be returned by the student to the examiner who prepared it for grading as Pass or Fail. Each examiner must record PASS or FAIL on the exam's cover page (or first page), sign and date it, and return the evaluated exam to the committee chair. If a final evaluation is deferred as described below, the examiner must record the final result once determined. The committee chair confirms and records the outcome of the written portion based on the examiners' evaluations and committee consensus.

The student must pass the written portion before taking the oral exam, except when an examiner defers a final evaluation pending further questioning during the oral examination. In such cases, the committee must agree that proceeding to the oral exam is appropriate. If the committee determines that the student has failed the written portion, the oral exam must not proceed until the failure has been addressed in accordance with the re-examination procedures below.

Oral Examination

The oral exam should be scheduled no sooner than one week after completion of the written exams to allow time for grading, and no later than one month after their completion. The committee chair should reserve at least three hours for the oral exam.

The oral exam may address the student's written responses, explore related concepts, and assess the student's ability to explain, synthesize, and apply knowledge. Committee members may ask additional questions at their discretion within the academic scope described above. The committee

chair must communicate permitted resources and any AI permissions or restrictions before the oral exam.

The oral exam must be scheduled so that all examining committee members can participate. Members not affiliated with TAMU-CC may participate remotely. At most one TAMU-CC affiliated member, other than the committee chair, may participate remotely without additional approval. Requests for additional remote attendance by TAMU-CC-affiliated members must be made by the committee chair to the program coordinator in advance of the exam and require approval based on compelling justification. The committee chair must participate in person unless extenuating circumstances warrant remote participation and the program coordinator approves the exception in advance.

A committee member who cannot attend should arrange for a COSC Ph.D. faculty member from the same department to serve as a substitute and notify the program coordinator and Office of Graduate Education in writing at least one week before the examination. In an emergency, the absent member may seek approval by telephone or other means with follow-up written confirmation. Only one substitution is allowed, and no substitution for the committee chair is permitted. If the chair cannot participate or two or more examining committee members cannot attend, the examination must be rescheduled.

Reporting Results and Advancement to Candidacy

At the end of the oral examination, the committee chair will ask each examining member to evaluate the student's performance on both the written and oral portions. The committee must collectively agree that the student has passed both phases of the Qualifying Examination. The chair will communicate the results and any requirements for additional work or re-examination, if permitted, to the student.

The committee chair reports the examination results using Doctoral Form B, available on the Graduate Education forms page. The form must include the required signatures and be submitted through the College of Engineering and Computer Science's designated process for reporting to Graduate Education. Submission must occur within 10 working days of the oral examination and at least 14 weeks before the final dissertation defense/oral examination. The committee may require additional or remedial work as a condition of passing.

The committee chair must submit copies of the evaluated written exams—or, at minimum, each exam's cover page showing the examiner's signature, date, and final Pass or Fail evaluation—to the Department of Computer Science through its designated submission process for confidential inclusion in the student's program file. The chair should securely retain copies of the student's evaluated written exams and notify the program coordinator when the examination results have been reported. Written examination content is confidential and must not be shared beyond the examination and required recordkeeping processes.

Students who pass the Qualifying Examination and satisfy all other candidacy requirements advance to candidacy at the beginning of the next semester. Students must successfully defend their dissertation within five years of advancement to candidacy and complete all degree requirements within the university's ten-year overall limit or any shorter applicable program limit, subject to approved exceptions under university policy.

Re-examination

Students who fail the Qualifying Examination are not guaranteed a re-examination. At its discretion, the graduate advisory committee may permit one re-examination, no sooner than four months and no later than six months after the first attempt, to allow the student time to address identified deficiencies. The committee may require the student to repeat the entire examination or only the portions not passed.

Students who are not permitted a re-examination or who fail the permitted re-examination will be dismissed from the doctoral program. Alternatively, the committee may recommend completion of a master's degree, subject to its admission and degree requirements, followed by administrative withdrawal from the doctoral program.

Peer-Reviewed Publications

As part of the Ph.D. process, students are expected to generate peer-reviewed publications. This is important for their development as independent researchers and their future careers in academia, federal agencies, or industry. Acceptance of dissertation research through peer review provides external validation of its scientific value, novelty, and importance. It demonstrates to the graduate advisory committee that external domain experts have deemed the work worthy of sharing with the broader scientific community and provides supporting evidence for the dissertation defense.

The standard expectation is that each Ph.D. student will have at least two full-length, peer-reviewed research papers based on their dissertation research accepted for publication before graduating, with an additional publication in development or under review. Publications should be in reputable scientific or technical journals or conference proceedings within the student's field. Full research papers in reputable, rigorously peer-reviewed conference proceedings may carry comparable or greater scholarly significance than journal articles in some fields, particularly computer science, and may count toward this expectation. "Full-length" distinguishes these contributions from letters papers or relatively short conference proceedings papers (e.g., five pages or fewer). The graduate advisory committee determines whether a paper qualifies based on its scope, depth, and the venue's publication standards.

These expectations serve as guidelines. Specific publication requirements are determined by the committee chair, with input from the other members of the graduate advisory committee, based on the dissertation research, standards of the field, and the committee's expectations. Students should establish publication expectations and a timeline with their committee chair early in the program, recognizing that publication may take a year or longer. An example of a desirable timeline is acceptance of the first paper by the end of Year 2, acceptance of the second by the end of Year 3, and a third under review during Year 4. Individual timelines may vary with research progress and publication review schedules.

Presenting research at scientific conferences is an important part of student development. All students are encouraged to attend and present their research at conferences. Travel funding may be available through the COSC Ph.D. program; students should contact the program coordinator for more information.

COSC Ph.D. Program Coursework Requirements

Option 1. Default CS Track

(a) Core Courses (12 hours) [1,2]	**Hours**
COSC 6334 Design and Analysis of Algorithms	3
COSC 6351 Advanced Computer Architecture	3
COSC 6352 Advanced Operating Systems	3
COSC 6370 Advanced Software Engineering	3
(b) Required Courses (3 hours) [3]	
COSC 6302 Graduate Seminar	3
(c) Research Hours	
Minimum of 30 hours of research and defense from the following:	30
COSC 6996 Research	
COSC 6998 Dissertation Research (after advancement to candidacy)	
COSC 6999 Dissertation Defense (minimum of 3 sem. hours)	
(d) Electives[4,5]	
Select 12-30 hours of approved electives	12-30

[1] All students must master the same core knowledge, and this content must be mastered prior to their candidacy exam. The core knowledge can be mastered with the following courses listed above. If any of the core courses have been previously taken by the student, one core course (3 hours) can be replaced by an approved transfer of credit or COSC 6996 Research. Additional core courses (up to 9 hours) can be replaced by approved COSC electives.

[2] Previously taken core courses must be deemed equivalent and validated by the syllabus, confirmed on the student's graduate transcript with a grade of B or better, and approved prior to enabling a transfer of credit or core replacement. Specific requirements must be met for courses that may transfer into a terminal degree at TAMU-CC as defined by the Office of Graduate Education (OGE). Credit used for another graduate degree cannot be applied to a graduate degree at TAMU-CC. Refer to the OGE Graduate Student Handbook for more details on credit transfers.

[3] Students should take COSC 6302 within their first semester or year in the program. Exceptions are if the course is not offered within a given academic year due to low enrollment.

[4] Students entering with a bachelor's degree must take at least 30 hours of electives. Students entering with a master's degree must take at least 12 hours of electives. Electives will predominately come from COSC, GSCS, and GSEN graduate courses. Up to 6 hours can be from another graduate program at TAMU-CC with approval.

[5] Students are required to take COSC 6336 Database Management Systems and COSC 6376 Network Security as part of their elective sequence unless the course (or equivalent) has been previously taken by the student at the graduate level. The student's transcript must show the course taken with a grade of B or better. Course equivalency will be validated by the course syllabus.

Option 2. Geospatial Informatics Specialization

(a) CS Core (12 hours) [1,2]	**Hours**
COSC 6334 Design and Analysis of Algorithms	3
COSC 6351 Advanced Computer Architecture	3

COSC 6352 Advanced Operating Systems	3
COSC 6370 Advanced Software Engineering	3
Geospatial Informatics Core (6 hours)	
Select two from the following:	6
GSCS 6321 Geospatial Data Structures	
GSCS 6331 Advanced Geospatial Computing	
GSEN 6330 Spatial Systems Science	
(b) Required Courses (3 hours) [3]	
COSC 6302 Graduate Seminar	3
(c) Research Hours	
Minimum of 30 hours of research and defense from the following:	30
COSC 6996 Research	
COSC 6998 Dissertation Research (after advancement to candidacy)	
COSC 6999 Dissertation Defense (minimum of 3 sem. hours)	
(d) Electives[4,5]	
Select 6-24 hours of approved electives	6-24

[1] All students must master the same core knowledge, and this content must be mastered prior to their candidacy exam. The core knowledge can be mastered with the following courses listed above. If any of the core courses have been previously taken by the student, one core course (3 hours) can be replaced by an approved transfer of credit or COSC 6996 Research. Additional core courses (up to 9 hours) can be replaced by approved COSC electives.

[2] Previously taken core courses must be deemed equivalent and validated by the syllabus, confirmed on the student's graduate transcript with a grade of B or better, and approved prior to enabling a transfer of credit or core replacement. Specific requirements must be met for courses that may transfer into a terminal degree at TAMU-CC as defined by the Office of Graduate Education (OGE). Credit used for another graduate degree cannot be applied to a graduate degree at TAMU-CC. Refer to the OGE Graduate Student Handbook for more details on credit transfers.

[3] Students should take COSC 6302 within their first semester or year in the program. Exceptions are if the course is not offered within a given academic year due to low enrollment.

[4] Students entering with a bachelor's degree must take at least 24 hours of electives and at least 6 hours must come from geospatial informatics (GSEN, GSCS). Students entering with a master's degree must take at least 6 hours of electives and at least 3 hours must come from geospatial informatics. Electives will predominately come from COSC, GSCS, and GSEN graduate courses. Up to 6 hours can be from another graduate program at TAMU-CC with approval.

[5] Students are required to take COSC 6336 Database Management Systems and COSC 6376 Network Security as part of their elective sequence unless the course (or equivalent) has been previously taken by the student at the graduate level. The student's transcript must show the course taken with a grade of B or better. Course equivalency will be validated by the course syllabus.

Research Prospectus and Proposal

The COSC Ph.D. program strives to give doctoral students comprehensive knowledge in their professional fields as well as training in research methods. Students must conduct novel research related to computer science or geospatial informatics, and within the scope of program goals. Students develop their dissertation research in close coordination with their committee chair (faculty advisor) and graduate advisory committee. Through research and coursework, students must continually review peer-reviewed literature and learn to prepare research proposals and

manuscripts for peer-reviewed publication. Original research and publication of the results are integral parts of the COSC Ph.D. program.

The required dissertation involves an independent, detailed research project of importance to the international scientific community. The student's graduate advisory committee will guide the development, design, and conduct of the dissertation research and will review and approve the dissertation manuscript. Normally, an edited version of the dissertation or chapters comprising the dissertation will be published. Your graduate advisory committee may require such publication as part of the defense process.

Research Prospectus

The doctoral student, along with their graduate advisory committee, designs and plans the dissertation research project. This plan must be formalized in a **"Prospectus," a brief 3-5 page** maximum document (including references) 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 Research Proposal and must be presented to the graduate advisory committee at an early meeting, ideally by the second semester **but no later than the end of the student's first full year in the program**. The **one-hour prospectus** meeting provides an opportunity for the student and committee to meet and interact, learn about the student's intended research direction, and provide initial feedback.

The introduction to the Prospectus should briefly explain the area of interest and scholarly motivation for the research. Some clearly stated research objectives should also be listed. The Prospectus should provide an overview on the proposed approach/methods to be explored to accomplish the research and conclude with expected contributions. Students can reach out to their faculty advisor and the COSC Ph.D. Program Coordinator for examples of prospectuses from former students.

The Prospectus must be approved and signed by all GAC members and submitted by the committee chair to the Department of Computer Science through its designated submission process for inclusion in the student's program file. The committee chair must retain a copy and notify the program coordinator that this milestone has been completed.

Research 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 (critical), and a detailed plan (experimental protocol) 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 an estimated budget (included in the Appendix) to conduct the research. The proposal should be approved by the advisory committee prior to beginning substantial research, and normally will be completed by the end of the second year, or beginning of the third year at latest, for those entering with a master's degree and by end of the third year, or beginning of the fourth year at latest, for those entering with a bachelor's degree.

The proposal should be prepared in the style of a relevant peer-reviewed journal. A dissertation proposal should include the following sections, and in the same or a similar 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. Study Purpose, Objectives and Hypotheses. This section explicitly states the purpose of the research project (e.g., to develop generalizable deep learning architectures for enhancing satellite imagery spatial resolution and spectral resolution). 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 (e.g., to gather high resolution and multispectral resolution satellite imagery over areas of varying land cover). Hypotheses provide the explicit questions and predictions that will be tested in order to answer the larger research question (e.g., what are the most efficient architectures for achieving accurate super-resolution predictions from low resolution image sets?).
5. Data Sets and Study Site (if applicable). Description of data planned to be collected and analyzed. If field research is planned, then a description of the study area including a map must be included. The study site should be briefly characterized. For some research, this section may not be relevant.
6. Methods. This section describes in detail the methods of data collection and analysis you will use to meet each research objective or hypothesis. This is arguably the most important part of the proposal. Be sure and include how and when you will obtain any necessary permits.
7. Intellectual Merit and Broader Impacts. This section describes the anticipated scientific contributions relative to the current state of literature in the field of computer science or geospatial informatics, or what the National Science Foundation (NSF) refers to as "the potential to advance knowledge". NSF defines broader impacts as "the potential to benefit society and contribute to the achievement of specific, desired societal outcomes."
8. 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 or hypothesis, and analysis of each objective or hypothesis, writing of dissertation, submission to committee, and graduation.
9. Literature Cited. This section includes the complete citation for each article referenced in the proposal in the format specified by the journal you have selected.
10. Budget. The budget should reflect a reasonable estimate of the expenses that are anticipated to be incurred during the research project and by whom they will be paid. Include financial or other support obtained from all sources. Include the budget in an Appendix at the end of the proposal. Divide the budget into 4 subsections and present it in tabular form.

1. Equipment. Include cost figures for each piece of non-expendable equipment that you must purchase to support your 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 for your use. Obtain permission before using University equipment and expendables.
2. Supplies. Estimate costs for all supplies expected to be exhausted during your research project including replacement costs such as batteries, computing costs, etc.
3. Travel. If field work is involved, include cost estimates for data collection including travel and other expenses.
4. Preparation of Documents. Include costs for journal publications or other anticipated publication expenses.

Budget Justification. This comes after the budget table. It is a brief statement explaining why each element of the budget is necessary to accomplish the research.

11. Biographical Sketch. The vitae must be 2 pages or less in length and should include five sections: 1) name, present address, contact information, and date; 2) Professional preparation including degrees listing most recent first; 3) Appointments to employment positions, listing most recent first; 4) Publications listing most recent first; and 5) Synergistic Activities, e.g. professional associations, presentations, professional activities, or any other relevant service.

After the proposal is completed and approved by the committee chair for presentation, i.e., it is written well, formatted correctly, and has addressed all required revisions and edits from the chair, a draft copy is provided to the graduate advisory committee. With the committee chair's consent and preliminary approval by the committee, the student should arrange to **formally present the proposal** in a **one-hour public seminar** followed by a **two-hour closed discussion and defense** of the proposal to the committee. Final approval of the written proposal is not required before the seminar. This presentation will clarify the objectives, justification, methods, and logic of the proposed research and provide project orientation. The student and the graduate advisory committee must plan the timing, location, and format of the Dissertation Proposal presentation, and the student must make a public announcement (see example at the end of this section) so that any interested persons may attend. **All members of the committee including the GFR should be present**. Advancement to candidacy will not be permitted until this requirement is met.

Writing a successful proposal may require many drafts prior to approval by the entire advisory committee. Starting this process early is strongly advised. During this process, committee members will request edits to the proposal that require further revision. After those changes are addressed and the revised proposal meets the committee chair's approval, each of the remaining committee members should be provided a copy for review. After all requested changes have been made and the committee is satisfied that all aspects of the revised proposal are in order, the final Dissertation Research Proposal must be delivered to the committee chair for signature and then to the rest of the committee for signatures.

The committee chair must submit the approved proposal to the Department of Computer Science through its designated submission process for inclusion in the student's program file, retain a copy, and notify the program coordinator that this milestone has been completed.

Preparing the Research Proposal

Make all narrative material of the dissertation 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.

When writing the dissertation proposal and dissertation, follow the general format and style for submitting manuscripts ("Guide/Instructions for Authors") of a respected scholarly journal in the field of your research. However, you ***should not follow*** the final style of journals such as the use of double columns on a text page, literature citation methods other than the name-date system, etc., nor can the typed manuscript duplicate every printing technique. Do not follow the journal's "Instructions to Contributors" except with regards to formatting headings and subheadings, figures and tables, figure and table captions and text callouts, abbreviations, etc. These instructions are primarily for the convenience of the editors and printers of the journal and do not necessarily apply to the format of dissertation proposals or dissertation manuscripts. The journal that you choose as the "Format Journal" for your graduate manuscript must be readily available in the TAMU-CC library. Your committee must approve your Format Journal choice before you begin to write the manuscript. It is usually a good idea to use the same Format Journal for both the proposal and final manuscript.

Prepare the manuscript using styles in your word processor. Styles allow you to reformat the document quickly. The dissertation manuscript must use 12-point Times New Roman in accordance with current university formatting requirements. Confirm proposal formatting with the committee chair. Follow your 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 your dissertation proposal and dissertation manuscript. The exceptions to this rule are for quotations exceeding six typed lines (inset and single-space these) and footnotes (which you should avoid). 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 dissertation proposal or dissertation manuscript except the Title and Approval pages. Number the preliminary pages of the dissertation 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 dissertation proposal and dissertation 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. Always refer to the graduate school and dissertation template document for current formatting requirements.

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 your 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 you place tables or figures 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 your 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 you use or adapt a figure from another author, cite the source in the figure caption. Generally, follow the format in the Format Journal when you develop 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 your Format Journal does not list the title of an article, make sure that you include it to enhance the usefulness of your citations to readers.

A dissertation template in WORD and LaTex format is provided by the Office of Graduate Education and can be found at the following link: dissertation guidelines and templates**.** It is recommended, though not required, that you utilize the dissertation template in preparing your proposal because it is required to be utilized for your final dissertation document. Always confer with your advisor concerning proposal format.

Research Proposal Seminar

After the committee chair approves the research proposal draft for distribution to the graduate advisory committee, the committee gives preliminary approval to proceed with the Dissertation Proposal Seminar, and a seminar date is set, the student must submit Form D: Doctoral Dissertation Proposal Hearing Request Form (available on the Graduate Education forms page). This form must be submitted through the designated electronic process with the required signatures no later than two weeks before the hearing (seminar) and at least two semesters before the student's anticipated graduation. The research proposal draft should be provided to the committee at least two weeks before the seminar. A Research Proposal Seminar Announcement (see example below) should be sent to the appropriate listservs no later than one week before the seminar.

Format of the Research 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
Computer Science Program
College of Engineering and Computer Science
Texas A&M University-Corpus Christi
Corpus Christi, Texas

Approved:

_____
Dr. A. Shell, Chairperson

_____
Dr. B. Waves, Member

_____
Dr. C. Gull, Member

_____
Dr. D. Sand, Member

Format: *Title of Journal* used as format.

Format of the Research Proposal Budget and Budget Justification

Table 1. Proposed budget for dissertation research

Budget Item	Costs ($)			
	TAMU-CC	Personal	Other	Total
*Salary				
Monthly (15 months)			15000.00	15000.00
Equipment				
Desktop	on hand/no cost			
Laptop		on hand/no cost		
Drones	on hand/no cost			
Supplies				
Flash lidar	2000.00			2000.00
Digital RGB cameras	1000.00			1000.00
Travel				
Boat/Vehicle (4 trips)	100.00	500	400.00	1000.00
Food			100.00	100.00
Hotel			200.00	200.00
Preparation of Documents				
Journal costs	2000.00			2000.00
Total	5100.00	500.00	15,700.00	21,300.00

* Salary is not required but it can be included

Also include a section entitled "Budget Justification" that briefly justifies the budget expenses outlined in the budget.

A budget should be prepared for things like anticipated software fees, publication submission fees, potential costs for data collections, sensor costs, etc. Any equipment or computing costs must be within reasonable amounts and are at the discretion of available funding, project resources, and should be put forth in consultation with your advisor.

Format of the Research Proposal Seminar Announcement

(Note: Time, date, and room are examples only)

RESEARCH PROPOSAL SEMINAR NOTICE
COMPUTER SCIENCE DOCTORAL PROGRAM
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
TEXAS A&M UNIVERSITY-CORPUS CHRISTI

SUBJECT: Official Title of Your Dissertation

SPEAKER: You A. Student

ADVISOR:

COMMITTEE:

DATE: [Insert day, month date, year]

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

PLACE: Building
Room

ABSTRACT

A 50-200-word abstract of your research proposal should appear here.

[NOTE: Students must post this notice electronically to faculty members and graduate students involved in the COSC Ph.D. program and other graduate programs. This is done by emailing a copy of the announcement to the COSC Administrative Assistant requesting that the announcement be sent to the following listservs: COSC Ph.D. faculty-list (cs-phd-faculty@listserv.tamucc.edu), COSC Ph.D. student-list (cs-phd-student@listserv.tamucc.edu), Department of Computer Science faculty-list (cosc-faculty@listserv.tamucc.edu), College of Engineering and Computer Science graduate-list (coecs-grad@listserv.tamucc.edu)]

SECTION IV: DISSERTATION GUIDELINES

Your dissertation must conform to COSC Ph.D. program and Office of Graduate Education (OGE) institutional standards. The following guidelines will help ensure your dissertation is completed and submitted appropriately. Consult the OGE Graduate Student Handbook for specific formatting and submission requirements.

The COSC Ph.D. Dissertation

Students will complete a study of the accepted standards of scholarly ethics and scientific integrity. The Ph.D. dissertation is a book-length, formal document that argues in defense of a particular thesis. Two important adjectives used to describe the dissertation are "original" and "substantial". The research performed to support a thesis must be both, and the dissertation must show it to be so. In particular, a dissertation highlights original contributions. Once data collection and analysis are completed, the research should be organized into a meaningful format and explained in a written narrative. The written narrative follows the style and format standard to scientific papers.

Dissertation research will not always go according to plans. Students must be prepared to adopt new methods of data collection or analysis if necessary and in consultation with the graduate advisory committee. Students should plan to take advantage of any opportunities to pursue side projects, as time and resources permit, to enrich understanding of the research topic.

The Office of Graduate Education Graduate Student Handbook outlines the guidelines and requirements for formatting the dissertation. Templates in WORD and LaTex format are provided by the Office of Graduate Education and can be found at the following webpage: dissertation guidelines and templates**.** These templates include formatting for the title page, copyright page, and committee member page. Links to required doctoral forms, dissertation templates, and other pertinent information can also be found here: https://www.tamucc.edu/academics/graduate-education/forms/index.php.

COSC Ph.D. students may choose between two models for organizing the dissertation content: 1) the traditional model, and 2) the journal manuscript model. The "traditional" model presents the dissertation research content in a single, cohesive manuscript. Information is presented sequentially and no section stands alone as a publishable document. The "journal manuscript" model presents dissertation research as several discrete articles, each appropriate for submission to a journal, bound together as the dissertation document. In the journal manuscript model, information may be repeated as necessary between articles so that each can stand alone as an academic work. The journal manuscript format must also include an overarching introduction, a summary/conclusions section that brings the entirety of the research into context, and a literature cited section that encompasses the entirety of the manuscript. Regardless of whether the traditional or journal manuscript model is chosen, the entire document must be submitted in one format style. In other words, in the journal manuscript model, even though it is likely that articles will be submitted to several different journals, the entire dissertation must be presented in the style of only

one journal. Headings and subheadings, punctuation, reference citations, and other details should follow the journal format exactly with few exceptions.

When the draft is ready, submit it to the chair of your advisory committee. Submit the draft as if it were the final – make it as perfect as possible with respect to writing and grammar, punctuation and spelling, journal formatting requirements, and with all figures and tables in final format. Be prepared to go through the revision process numerous times before the committee chair is comfortable letting the rest of the committee review the document.

When the committee chair is ready for the document to be submitted to the rest of the committee, enough copies should be reproduced so that each member can have a copy. Ideally, committee members should return the corrected dissertation within two weeks of receipt. Students should check with committee members to ensure they have the time to review the document. A final draft delivered to the advisory committee one month prior to the dissertation seminar would allow two weeks before the scheduled final defense/oral examination date for the student to make recommended changes. After the committee has returned the corrected draft, students should review suggested changes with their advisory committee chair, and make the suggested changes, unless the chair directs otherwise. (Note: A request to schedule the defense/final examination must be submitted by the published deadline (http://gradschool.tamucc.edu/current_students/doctoral_dates.html) on the appropriate form found at http://gradschool.tamucc.edu/forms.html (Form E).)

Students should be prepared to go through the revision process more than once before the committee members are comfortable signing off on the final document.

Students should be sure to give their advisory committee chair enough time to review the manuscript and leave themselves enough time to make changes. In other words, students should make sure that they have left ample time prior to deadlines for all members to have adequate time to review the document and for all the changes suggested by the committee to be made. **The dissertation should be essentially complete before the dissertation seminar and final defense/oral examinations**. Any member of the graduate committee or the Office of Graduate Education can reject the dissertation at any stage of the submission and approval process. Rejection of the manuscript can occur for many reasons including (but not limited to):

1. The manuscript does not conform to the required format
2. The manuscript is messy, poorly reproduced, or contains grammatical or spelling errors
3. The manuscript describes scientific data inconsistent with the research project approved in the dissertation proposal
4. The paper contains errors, inappropriate analysis of data, erroneous conclusions, or other scientific inaccuracies
5. The paper contains plagiarized work.

After a student has successfully presented the dissertation seminar, completed the defense/oral examination, and completed all changes to the dissertation manuscript that have been requested by the committee, the Dissertation Defense/Final Examination (Form F) report will be electronically routed for signatures and submitted to the Office of Graduate Education here: https://www.tamucc.edu/academics/graduate-education/forms/index.php.

The COSC Ph.D. faculty expects students to submit dissertation research (in proper format) to scholarly journal(s) for publication. If the advisory committee chair or other person(s) including other faculty or scientists from funding agencies, etc., made a significant contribution to the research or writing of the manuscript to be submitted, then the person should be listed as a co-author on the published article. The student and the advisory committee chair should agree on the order of authorship. Seriously consider co-author status if a person:

1. Supported the work through a grant that was authored by them
2. Did a significant portion of field or laboratory work
3. Contributed materially and intellectually to the research
4. Contributed to the writing

In all cases, acknowledge the chair of the advisory committee, other members of the graduate advisory committee, other people that offered assistance and TAMU-CC in the publication. It is courteous to acknowledge persons, who assisted in any major way including moral support, lab/field/research assistance, and of course, any source of financial assistance.

Dissertation Seminar & Final Defense/Oral Examination

The comprehensive exam must be passed and courses in the plan of study completed with a GPA of 3.0 or greater before the dissertation defense/final examination will be scheduled. Once the dissertation is completed and approved by the advisory committee, the results of the research must be presented orally and publicly. The dissertation defense/final examination must cover, but is not limited to, the dissertation. The defense must be scheduled for a minimum of **six weeks** prior to graduation. The seminar should be scheduled and completed prior to the final defense/oral examination. The final defense/oral examination usually takes place immediately following the seminar, but it can be scheduled on a separate day if necessary to accommodate the schedules of committee members. **Students should reserve one hour for the public seminar and three hours for the closed defense/oral examination that follows with the GAC, including the GFR.**

Subsequent to the dissertation defense/final examination, and **only** after all changes to the dissertation manuscript requested by the committee have been made, the student will submit an electronic copy of the dissertation, no later than **four weeks** prior to graduation, to ProQuest/UMI as a single PDF file (see OGE Graduate Student Handbook for detailed instructions).

Students not completing all requirements of the Final Dissertation Defense by the end of the semester, such as turning in an approved final draft by published deadlines, will receive a grade of In Progress (IP). The student must register for the same course in the subsequent semester, paying all the appropriate tuition and fees, to receive a final grade for the course.

After your **Dissertation Defense & Final Examination Report** (Form F) is submitted electronically and all requested changes have been made, you can submit your dissertation electronically.

Dissertation Seminar

The Dissertation Seminar is a formal oral and visually supported presentation of the results of the research or of some pertinent aspect of the research. Although it will generally be longer than a paper presented at a scientific meeting, it should be similar in format and design. The defense should review parts of the dissertation including the background and relevance of the research, the methods, the results, and the conclusions. Professional quality visual aids must complement the oral presentation. As a general rule, the oral presentation should last about 45 minutes and at least 15 additional minutes should be allowed to answer questions from the audience at the end. Your committee will reserve most of their questions for the final defense/oral examination during the closed session.

Students must prepare and submit a formal announcement of the dissertation seminar to their committee chairperson for approval at least two weeks prior to the seminar date. It is the student's responsibility to contact each committee member and arrange a time and place for the event. All committee members must attend the seminar. The student is responsible for posting the seminar notice as an e-mail to all appropriate listservs at least one week prior to the seminar date. Email a copy of the seminar notice to the College of Engineering and Computer Science Dean's Office (Academic Advisor) and COSC Administrative Assistant.

Final Defense/Oral Examination

The purpose of the final defense and oral examination is to allow advisory committee members to gauge the scope of the student's understanding of the principles and significance of the discipline of the dissertation research. It complements the qualifying examination, which gauges overall knowledge in the field, by allowing a more detailed assessment of specific knowledge as it applies to the dissertation research. The exact format and scope will vary among students depending on both their advisory committee and the nature of their research.

The graduate advisory committee will decide whether a student has passed the final defense and oral examination. Regardless of whether the student passes or fails, the committee will discuss with the student their assessment of the student's performance. If a student fails, the exam may be retaken only once, and only after at least four months have passed.

Format of the Dissertation Seminar Notice

(Note: Time, date, and room are examples only)

RESEARCH DISSERTATION SEMINAR NOTICE
COMPUTER SCIENCE DOCTORAL PROGRAM
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
TEXAS A&M UNIVERSITY-CORPUS CHRISTI

SUBJECT: Official Title of Your Dissertation

SPEAKER: You A. Student

ADVISOR:

COMMITTEE:

DATE: [Insert day, month date, year]

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

PLACE: Building
Room

ABSTRACT

The abstract of your dissertation or graduate project 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 must post this notice electronically to faculty members and graduate students involved in the COSC Ph.D. program and other graduate programs. This is done by emailing a copy of the announcement to the COSC Administrative Assistant requesting that the announcement be sent to the following listservs: COSC Ph.D. faculty-list (cs-phd-faculty@listserv.tamucc.edu), COSC Ph.D. student-list (cs-phd-student@listserv.tamucc.edu), Department of Computer Science faculty-list (cosc-faculty@listserv.tamucc.edu), College of Engineering and Computer Science graduate-list (coecs-grad@listserv.tamucc.edu)]

SECTION V: 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. You 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 you. You will also find information about your 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. *(Note: The requirement to hold a bachelor's degree does not apply to students enrolling in the RN-MSN option in nursing.)* 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: https://www.tamucc.edu/grad-college/index.php. 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

**For RAs and TAs with 50% FTE appointments, the summer enrollment minimum is 3 graduate credit hours across the combined summer terms. This meets the assistantship requirement, not the full-time classification above.*

Continuous Enrollment

Unless on an approved leave of absence (see below), students in terminal degree programs must be enrolled continuously for at least 3 semester credit hours each fall and spring semester and pay designated tuition and fees. Individual programs may have additional credit hour requirements or may require students to continuously register in courses for a minimum of two consecutive terms which may include summer. See specific program information in the graduate catalog or elsewhere in this handbook for additional requirements for your program. Students should be aware that unapproved leaves in a fall or spring semester may result in the student being required to re-apply to their program.

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 Office of Graduate Education 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 absence require suspension of all activities associated with 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

There are specific policies about repeating courses for higher grades, including the provision that 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 Ph.D. degrees at Texas A&M University-Corpus Christi must be completed within ten years subsequent to enrollment in the terminal degree program. The ten-year period begins with the first semester in which the student enrolls and is calculated from the date of degree conferral. Students have a maximum of five years to advance to candidacy and a maximum of 5 years from candidacy to successfully defend the dissertation. Students who exceed the candidacy deadline may request an extension. Candidacy extensions require strong justification in writing from the student and must include a plan for timely completion of the comprehensive examination, the proposal, and the final dissertation. The extension must be approved by the student's faculty advisor, the department chair, the College Dean, and the Graduate Dean. Credit that is more than ten years old will not count toward a terminal degree. Exceptions will only be considered for courses completed at Texas A&M University-Corpus Christi and will require strong justification in writing from the student requesting the exception as well as a revalidation plan. Written approval from the major department chair, the Dean of the college from which the degree is offered, the Graduate Dean, and the Provost are required.

Revalidation of Courses Beyond Degree Time Limit

In order to revalidate dated courses, students should carefully review the information in the catalog (see Graduate Academic and Degree Requirements section of the catalog). Revalidation requests should be made using the Revalidation Request Form.

If your program has shorter time-to-degree limits, it may impact recency of credit and other timelines. See program information in this handbook or discuss with the Program Coordinator.

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 higher GPA may be required by some programs. In such cases, the higher standard will be substituted for 3.0 in all other matters related to good academic standing. 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.

Texas 99 Hour Rule

The Texas State Legislature enacted a rule that provides that students at all state universities with over 99 doctoral hours may be subject to the payment of nonresident tuition. A student will generally be able to study at TAMU-CC full-time for five complete academic years, including summers, before being affected by the 99-hour rule. For students staying beyond five years, in a number of cases there is still the possibility of a programmatic or individual exemption from the rule. For more information, contact your Program Coordinator.

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:
Office of Graduate Education
Office of Graduate Excellence
Office of Student Financial Assistance
Office of International Education
Scholarships
Assistantships

SECTION VI: APPENDICES

Appendix 1: COSC Ph.D. Program Application Checklist

Applicants should review the COSC Ph.D. admissions page for current requirements and deadlines.

- **Identify a faculty advisor.** Applicants should contact the program and prospective faculty advisors to discuss research interests and identify a graduate faculty member willing to serve as their advisor and graduate advisory committee chair. Applicants will not be admitted without a faculty advisor.
- **Complete the ApplyTexas application** and pay the required application fee.
- **Submit an essay of approximately 500–1,000 words** describing the applicant's educational background, reasons for seeking admission, and proposed research interests. Include a summary of discussions with prospective faculty advisors.
- **Submit a curriculum vitae (CV)** outlining relevant education, experience, research, and publications, as applicable.
- **Request three letters of recommendation** from individuals familiar with the applicant's academic achievements and potential for doctoral study. Recommendations should be submitted through the university's designated process.
- **Arrange for official transcripts** documenting all undergraduate and graduate coursework to be sent directly from the issuing institutions to Graduate Admissions. TAMU-CC transcripts do not need to be requested separately. Submit degree certificates or other documentation of completed degrees when required.
- **International applicants must submit additional documentation**, as applicable:
    - Evidence of English language proficiency meeting current university and program requirements, unless eligible for an exemption. Required test scores must be from tests taken within the preceding two years.
    - Official international transcripts and degree certificates, with official English translations and credential evaluations as required.
    - A copy of the current visa, if applicable, and required financial support documentation.
    - Consult the Graduate Catalog's admissions requirements for current English proficiency standards, exemptions, and international documentation requirements.
- **Review financial assistance opportunities** through the College of Engineering and Computer Science and contact the COSC Ph.D. Program Coordinator for guidance on available funding, application procedures, and deadlines.

Domestic/International Students	**Fall Semester**	**Spring Semester**	**Summer Semester**
Priority deadline	April 30	August 1	Not Offered
Last date for receipt of applications	July 15	November 15	Not Offered

Appendix 2: COSC Ph.D. Program First-Year Checklist

- Meet with your primary advisor prior to enrolling for first semester classes.
- Meet with COSC Ph.D. Program Coordinator prior to enrolling for first semester classes, or within the first semester to review the degree plan.
- Form Graduate Advisory Committee (GAC) by the end of year 1.
    - Work with your primary advisor (Committee Chair) to organize the committee.
        - Committee Chair is the faculty member who agreed to be your primary advisor once accepted into the program.
    - Meet with other faculty members about research interests.
- Prepare a degree plan by end of the second full semester in the program.
    - Leveling coursework
    - Elective coursework
    - Dissertation topic
- Prepare research prospectus (3-5 pages)
- Meet your GAC and present your prospectus.
    - Organize a meeting with your GAC to present your prospectus and discuss research and study plans with your committee.
    - GAC reviews your degree plan.
- Office of Graduate Education (OGE) appoints a Graduate Faculty Representative (GFR)

Appendix 3: COSC Ph.D. Program Degree Requirements Checklist

I. Coursework

- Leveling coursework (if necessary) as specified by GAC and COSC Program Coordinator
- Preliminary Degree Plan submitted to the College of Engineering and Computer Science Dean's Office and Office of Graduate Education (OGE) by end of the second semester, but **no later than 18 months** after beginning the doctoral program:
    - Minimum 75 hrs beyond bachelor's degree, or 57 hrs beyond master's degree
    - 12 hrs Core Curriculum and 3 hrs COSC 6302 Graduate Seminar
    - 3.0 minimum GPA
- Final Degree Plan submitted to the College of Engineering and Computer Science Dean's Office and OGE no later than **the census day (12th class day)** of the semester prior to the graduating term.
    - Apply for graduation through SAIL by the Registrar's published deadline for the intended graduation term; consult the assigned graduate academic advisor in the college for assistance.

II. Research Prospectus and Proposal

- Research Prospectus (3-5 pages)
    - Present the prospectus to the GAC
        - Typically, a one-hour meeting with 25 minutes reserved for presentation
    - Address committee feedback or requested edits
    - Submit signed version to the Department for inclusion in the student's program file
- Dissertation Research Proposal
    - Independent, detailed, original, systems-based inquiry
    - Modified from the Research Prospectus with GAC input
    - Submit draft to committee chair for review
        - Complete revisions until approved by the chair
    - Share with GAC, after chair approval, at least two weeks prior to seminar
    - Present a proposal seminar to public and defend
        - Submit Doctoral Dissertation/Project Proposal Hearing Request Form (Form D) to OGE at least two weeks prior to scheduled seminar date
        - Post announcement to relevant Listservs at least 1 week in advance
        - One-hour public seminar followed by a two-hour closed defense.
        - Obtain signatures of approval by the entire GAC
    - Submit signed version to the Department for inclusion in the student's program file, with copies sent to GAC members

III. Admission to Candidacy [**Major Decision Point**]

- Residence requirement: At least 9 credit hours in 2 consecutive semesters
- Completed *formal* coursework on Degree Plan
  - Excluding research hours
  - 3.0 minimum GPA
- Dissertation Research Proposal on file with Department of Computer Science
- Qualifying Examinations
  - Written examination from each examining GAC member (excluding the GFR)
  - Oral examination with the examining GAC members (excluding the GFR)
  - Can cover both core knowledge and areas of research
  - Schedule after completion of proposal seminar/defense, within six hours of completion of *formal* coursework or soon after completion
  - Must pass within 12 months of coursework completion
  - Notify Office of Graduate Education of outcome (submit Form B)

IV. Teaching Experience

- Relevant teaching experience as instructor of record is recommended for those pursuing an academic career (but not required)
  - Consult with your faculty advisor and the program coordinator.

V. Dissertation

- Data collection and analysis completed
- Choose format, in consultation with your chair, and prepare according to guidelines
  - Multiple iterations of editing
  - With committee chair approval, provide copies to GAC no later than 2 weeks prior to the final dissertation defense
  - Committee returns edited versions and comments, typically before date of defense
  - Review and incorporate suggested changes from the committee
  - Additional review by GAC may be required
- Submit final, corrected version of Dissertation to OGE following successful defense
  - See OGE Graduate Student Handbook for instructions
- Note: Completion of the COSC Ph.D. is driven by the dissertation as a product of research, rather than by external factors or commitments.

VI. Dissertation Defense

- Must have been admitted to Degree Candidacy at least 1 semester prior to defense
- Must be registered for credit for semester in which the final defense takes place
- Apply for graduation through SAIL by the Registrar's published deadline; consult the assigned graduate academic advisor in the college for assistance. 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 Dissertation Seminar and Final Defense
    - Must be held at least six weeks prior to graduation
- 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 and Computer Science Dean's Office (Academic Advisor)
- Present Dissertation Seminar and stand for the Final Defense
    - **One-hour public seminar followed by a three-hour closed defense/oral examination.**
- 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 4: COSC Ph.D. Program Timeline

Milestone	Entering with BS Degree		
	Deadline	**Grace**	**Penalty**
Degree Plan	2nd sem	3rd sem	*Registration Bar
Committee formed	2nd sem	3rd sem	Registration Bar
GFR added (part of committee formation)			
Prospectus	2nd sem	3rd sem	Registration Bar
Proposal/Seminar	6th sem	7th sem	Registration Bar
Formal Courses	6th sem	7th sem	Registration Bar
Qualifying Exam	7th sem	8th sem	Registration Bar
Final Dissertation	10 years (20 sem)	0	Courses expire after 10 years

Milestone	Entering with MS Degree		
	Deadline	**Grace**	**Penalty**
Degree Plan	2nd sem	3rd sem	*Registration Bar
Committee formed	2nd sem	3rd sem	Registration Bar
GFR added (part of committee formation)			
Prospectus	2nd sem	3rd sem	Registration Bar
Proposal/Seminar	4th sem	5th sem	Registration Bar
Formal Courses	4th sem	5th sem	Registration Bar
Qualifying Exam	5th sem	6th sem	Registration Bar
Final Dissertation	10 years (20 sem)	0	Courses expire after 10 years

(sem = fall, spring; 10 week summer session considered part of grace period, if applicable)
*Deficiency must be made up before registering for next semester, and students must be registered full-time to be eligible for any graduate assistantships or scholarships.