UTSA The University of Texas at San Antonio College of Sciences

COS Undergraduate Thesis Policies

1. Overview

Within the COS Signature Experience Program, the COS Undergraduate Thesis allows for advanced students to conduct research under the supervision of a faculty member and to complete a thesis. Students who enjoy research, plan to pursue a research-intensive career, or want to attend a STEM graduate program are encouraged to pursue the Undergraduate Thesis option. The Undergraduate Thesis option is available in all majors within the College of Sciences. Students can earn up to six (6) hours of academic credit, which can count towards their degree requirements, for doing research for their thesis projects. Interested students should contact the College of Sciences Dean's office or their Undergraduate Advisor of Record (UGAR) within their major Department for any questions about the COS Undergraduate Thesis.

2. Program Requirements

The COS Undergraduate Thesis is usually completed in the final two semesters of the student's degree program. Interested students must start planning their thesis project with their Faculty Supervisor well before their final two semesters. The Faculty Supervisor will determine if a thesis project is possible within the given timeframe and within their capacity to support it.

2.1. Eligibility Requirements

Thesis students must meet the following requirements at the time of application and throughout their thesis project:

- Be a College of Sciences major
- Be in Good Academic Standing
- Completed at least 60 semester credit hours to be in Upper-Division standing
- Be sponsored by a COS faculty member (Faculty Supervisor)
- Have approval of the Faculty Supervisor, Department Chair, and the Associate Dean of Undergraduate Studies

Students must apply for the COS Undergraduate Thesis option by submitting the completed "COS Undergraduate Thesis Registration Form", along with accompanying forms, by the first day of class in the next to the last semester of coursework. For example, if the student is expected to graduate Spring 2025, they need to apply by the first day of class of the Fall 2024 semester.

2.2. Faculty Supervisor

The Faculty Supervisor is responsible for supervising the students' thesis project within their own lab. Often, the thesis project is a part of the Faculty Supervisor's larger research projects.

The Faculty Supervisor is a research-active faculty member within the College of Sciences. Generally, any tenured or tenure-track faculty with an appointment in COS can serve as a Faculty Supervisor of an Undergraduate Thesis project.

2.3. Thesis Committee

All thesis projects are evaluated by a Thesis Committee. The Thesis Committee consists of the Faculty Supervisor and two Readers. The first Reader must be a COS faculty member. The second Reader can be any UTSA faculty member. All committee members should be active researchers and/or have expertise in the thesis topic area. The Thesis Committee is formed as soon as the Faculty Supervisor has determined that the student is ready to move forward to their second and final semester taking the Undergraduate Thesis option.

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2.4. Coursework

COS Undergraduate thesis students are required to register for two consecutive semesters of coursework related to the thesis project. Students can pursue two course options (academic credit or zero-hour credit) for reflected in their transcript:

2.4.1. Academic Credit Courses

Each degree program has a 4993 Directed Research course (e.g., BIO 4993) in which students can earn academic credit for doing research under the supervision of a faculty member. The Directed Research course will be set up like an independent study course and students will receive a letter grade. Students will register for the 4993 Directed Research course and pay tuition and fees. Students can earn up to 6 SCHs of academic credit for their thesis project. Note that some degree programs have an overall limitation of how many hours can count towards a degree from individualized learning courses like internships, independent studies, and research.

The 4993 Directed Research course must be taken in the same subject code as the student's major. Depending on the major, a degree program may also accept the academic credit earned from the internship to count towards their upper division major requirements. If the 4993 Directed Research course is in a COS subject code that is different from the student's major, the student would need to have prior approval from the Department to have it count towards their degree.

Thesis students may use another course such as Independent Study or Lab Research in place of the 4993 Directed Research if they can justify why the 4993 course cannot be taken. One example is that a student may elect to do a one-hour course instead of a three-hour course.

2.4.2. Zero-Hour Courses

Thesis students can opt to **not** earn academic credit for engaging in research. Instead, thesis students would register for SCI 4400 – COS Signature Experience – Research in each of the thesis semesters. Thesis students will still need to register for SCI 4600 as well for final semester. Should a thesis student be unsuccessful in completing their thesis project while registered for any zero-hour courses, they will be dropped from those courses.

Thesis students will be registered for SCI 4600 COS Undergraduate Thesis course in the final thesis semester. Thesis students will receive a CR grade in SCI 4600 for successful completion of their thesis project. The course will be listed on the official transcript to serve as evidence for successful completion of the thesis. Should a thesis student be unsuccessful in completing their thesis project while registered for SCI 4600, they will be dropped from the course.

Thesis students can take a 4993 Directed Research course in one semester and a zero-hour course in another semester so long as they register for SCI 4600 in their last thesis semester.

2.5. Registration

Students must submit a completed "COS Undergraduate Thesis Registration Form" for each thesis semester during the registration period to the student's major department for review and approval. The form includes the UTSA Independent Study form as well as a completed COS Syllabus Template. The deadline for submitting these forms is by the first day of class for each semester.

The department will facilitate the approval process with the Department Chair and COS Associate Dean of Undergraduate Studies. Once approved, the documents will be returned to the student for upload to the Onestop Document Uploader.

Thesis students must follow the same registration schedule for credit-bearing courses as other courses, specifically for adding and dropping the course. Thus, it is important for students to submit registration forms as early as possible. Zero-hour courses can be dropped at any time. The Faculty Supervisor makes the determination if a thesis student is making sufficient progress in their two-semester thesis project. If a student has not shown sufficient progress on their thesis project, the Faculty Supervisor may request to withdraw the student from the COS Undergraduate Thesis option at any time.

3. Thesis Requirements

The two-semester thesis project culminates with two deliverables: the written thesis of the research project and a public dissemination of the thesis.

3.1. Written Thesis

The written thesis should follow the format and organization as research articles in their respective fields. If the Faculty Sponsor does not provide additional guidance on formatting, students can follow APA formatting and styles for their document. Students reach out to their UTSA Librarian to determine the best formatting style for their area. Students are encouraged to use citation management software like Endnote and Zotero.

As a guide, thesis papers should be approximately 20-25 pages, double-spaced excluding title pages and reference lists. They should follow the same organization, using sections and/or chapters, found in common research articles in their respective fields. The Faculty Supervisor can adapt these requirements as appropriate.

3.1.1. Runner Research Press

If the Thesis Committee approves, the final thesis must be submitted to UTSA Libraries' Runner Research Press repository after completion. Students and their faculty supervisors can set embargo dates on when the thesis can be released to the public through the Runner Research Press. Submission to the Runner Research Press is a requirement for thesis completion. Students may need to work with UTSA Libraries to ensure that their manuscripts meet the formatting requirements for submission.

3.2. Public Dissemination

The student must publicly disseminate their thesis held in a public forum determined by their Faculty Supervisor, which should happen near the end of the second thesis semester. Public dissemination can include presenting the work at an academic conference, publishing it in a peer-reviewed journal, presenting it in front of the thesis committee, etc.

4. Timeline and Procedures

This section describes the ideal timeline for the two-semester thesis program.

4.1. Before Semester 1

Students need to find a Faculty Supervisor open to supervising them in a two-semester COS Undergraduate Thesis project in their labs. Students should reach out to faculty members who they have worked with in class or other research projects before.

Once a faculty member agrees to serve as their Faculty Supervisor, the student will develop thesis project ideas with their Faculty Supervisor, which can be finalized during the first thesis semester.

The student and the Faculty Supervisor will complete the "COS Undergraduate Thesis Registration Form" and submit it to their major department. The student will also need to submit a completed UTSA Independent Study form and the accompanying syllabus created by the Faculty Supervisor using the COS Independent Syllabus Template. The student will also determine which course options they want to take in the upcoming syllabus. This decision should be made in consultation with the student's academic advisor.

All forms must be reviewed and approved by the Faculty Supervisor, the Department Chair, and the COS Associate Dean for Undergraduate Studies. The deadline to submit this packet to the department is the first day of class in the first thesis semester. It is highly recommended that students submit these documents to the department well in advance. Once approved, the student will upload the approved documents to Document Uploader and Onestop will register them in the courses.

4.2. Thesis Semester 1

The first thesis semester is focused on developing the thesis proposal, which is a formal document with an abstract, introduction and research questions, review of literature, and outline of proposed research activities. The proposal should be completed no later than the midterm grade due date. The proposal must be approved by the Faculty Supervisor before the student can start on the actual thesis research.

In the event the student is not making sufficient progress towards their thesis proposal, students may be dropped from the COS Undergraduate Thesis by the request of the Faculty Supervisor to the Associate Dean for Undergraduate Studies. If they are registered for an academic credit course, students may have to stay enrolled in the course depending on the date of this decision and receive an appropriate grade for the work they did complete. If the student is registered in a zero-hour course, they will be dropped from that course regardless of when the decision is made.

For students who will continue with their thesis project in the next semester, they will need to submit a completed "COS Undergraduate Thesis Registration Form" along with the completed UTSA Independent Study form and the accompanying syllabus created by the Faculty Supervisor using the COS Independent Syllabus Template.

All forms must be reviewed and approved by the Faculty Supervisor, the Department Chair, and the COS Associate Dean for Undergraduate Studies. The deadline to submit this packet to the department is the first day of class in the first thesis semester. It is highly recommended that students submit these documents to the department well in advance. Once approved, the student will upload the approved documents to Document Uploader and Onestop will register them in the courses.

4.3. Thesis Semester 2

Students must complete all thesis requirements by last day of finals in the current semester, including:

- Written thesis based on research activities completed in the past semester
- Public dissemination based on the completed thesis project
- Submission of written thesis to Runner Research Press
- Submission of Completion of COS Undergraduate Thesis form to the student's major department

It is the student's responsibility to set a timeline with their Faculty Supervisor that allows adequate time for each of those tasks within the semester while still being able to meet the deadline.

4.4. Evaluation

The Thesis Committee (the Faculty Supervisor and Readers) will evaluate the student's written thesis as well as the public dissemination component to determine if the student has successfully completed the COS Undergraduate Thesis. The Thesis Committee will evaluate the thesis on its intellectual merit, quality of research and the written project, and successful and timely completion of all research activities. The Thesis Committee are expected to provide any feedback and suggestions to the student.

The Thesis Committee will determine if the student has successfully completed the COS Undergraduate Thesis. If approved, the student will address any feedback and suggestions from the Thesis Committee in revising their final version of the written thesis. The student and Thesis Committee will complete and submit the "Completion of COS Undergraduate Thesis Form".

If the Thesis Committee has determined that the student did not successfully complete the thesis and does not have time to adequately address all their concerns within the current semester, then the student will not be able to finish the COS Undergraduate Thesis. They will be removed from the SCI 4600 course. If they are registered for an academic credit course, they will receive the appropriate grade earned.

5. After Completion of COS Undergraduate Thesis Option

5.1. Academic Transcript

Thesis students who successfully complete the COS Undergraduate Thesis will have their transcripts show SCI 4600 in their final semester of coursework. It will have a grade of CR, which means that the student has successfully completed their COS Undergraduate Thesis.

5.2. Optional CV/Resume Entry

Upon successful completion of thesis and graduation, students should include a note about the thesis in their resume or CV. Here is an example entry:

> B.S. Mathematics for Teaching, University of Texas at San Antonio
> Undergraduate Thesis: Scaffolding calculus learning for high school students with adaptive math learning systems (Supervisor: Firstname Lastname, PhD)

5.3. Regalia

Thesis students who successfully complete the COS Undergraduate Thesis will be recognized with regalia items they can wear at commencement and other academic events. Students will contact the COS Student Success Center to arrange the pick-up time for these items.

6. Honors College

Honors College students will require approval from the Honors College to count the COS Undergraduate Thesis and any of its related course requirements towards their Honors College requirements. Honors College students should receive this approval from the Honors College before their semester in the COS Undergraduate Thesis option.