

# MASTER OF SCIENCE IN COMPUTING AND INFORMATION SCIENCE

The Computing and Information Science curriculum utilizes state-of-the-art software, software development methodologies, project management techniques, and hardware. Emphasis is placed on preparing students for an environment where change is the norm. Computing and Information Science may be selected as the major for the Master of Science degree.

Applicants seeking admission to the graduate program in computing and information science must submit the following directly to the Office of Graduate Admissions:

1. Graduate Application (<http://www.shsu.edu/admissions/apply-texas.html>)
2. Application fee (<http://www.shsu.edu/dept/graduate-studies/application-fee.html>)
3. Official transcript(s) of all previous college work
4. Official GRE scores
5. Two letters of recommendation that address the applicant's qualifications for graduate study
6. International Applicants Only: TOEFL or IELTS scores. The minimum requirement for TOEFL is 550 paper-based, 213 computer-based, and 79 internet-based. The minimum requirement for IELTS is 6.5

Graduate study in computing and information science is accessible to students who have completed undergraduate computer science majors or minors and to students with baccalaureate degrees in related fields with the equivalent of a computer science minor in formal coursework or professional experience.

At the minimum, candidates are expected to present a background comparable to that provided in the following courses as described in the Undergraduate Catalog ([catalog.shsu.edu/archives/2017-2018/undergraduate](http://catalog.shsu.edu/archives/2017-2018/undergraduate)) of Sam Houston State University.

## Background Courses

### Courses

COSC 1436	Programming Fundamentals I	4
COSC 1437	Programming Fundamentals II	4
COSC 3318	Data Base Management Systems	3
COSC 3319	Data Structures and Algorithms	3
COSC 4318	Advanced Language Concepts	3
COSC 4327	Computer Operating Systems	3
MATH 1420	Calculus I	4
MATH 3379	Statistical Methods In Practice	3

Applicants with less preparation will be required to complete additional stem work as part of the graduate program.

In general, applicants whose GRE score exceeds 300 will likely be able to complete the master's degree successfully. Admission preference is given to those applicants with an undergraduate GPA in excess of 3.0. However, please note that a holistic review of each student's application file will be completed, and admission will be granted on a competitive basis.

The MS in Computing and Information Science requires a minimum of thirty-six hours of graduate credit. There are two plans leading to the degree; a thesis and a non-thesis option.

A committee advisor is assigned to each student at the time the student registers for COSC 6347 or COSC 6348. Committee appointments are made by the Chair of the Computer Science Department based upon recommendation from the Computer Science Graduate Advisor. The advisory committee consists of graduate faculty from the Computer Science Department. Students may also be required to complete a written comprehensive examination in certain core subjects before graduation. Students may also be required to supplement their written responses in an oral examination. Students must be enrolled the semester in which they take comprehensive examinations. Once enrolled in COSC 6347 or COSC 6348/COSC 6049 a student must be continually enrolled in each major semester until graduation.

## Plan 1 - MS in Computing and Information Science (Thesis Option)

### Master of Science in Computing and Information Science (Thesis option)

#### Specified Courses

COSC 5318	Database Systems	3
COSC 5319	Algorithm Design and Analysis	3
COSC 5327	Operating Systems	3

COSC 6318	Language and Compiler Design	3
COSC 6319	Software Engineering	3
COSC 6049	Thesis	3
COSC 6348	Thesis <sup>1</sup>	3
<b>Electives</b>		
Select five graduate courses in COSC or DFSC selected in consultation with the Graduate Advisor		15
Total Hours		36

<sup>1</sup> Once enrolled in COSC 6348, the student must enroll in this course until graduation.

## Plan 2 - MS in Computing and Information Science (Non-Thesis Option)

### Master of Science in Computing and Information Science (Non-thesis option)

<b>Specified Courses</b>		
COSC 5318	Database Systems	3
COSC 5319	Algorithm Design and Analysis	3
COSC 5327	Operating Systems	3
COSC 6318	Language and Compiler Design	3
COSC 6319	Software Engineering	3
COSC 6347	Programming Practicum <sup>2</sup>	3
<b>Electives</b>		
Select six graduate courses in COSC or DFSC selected in consultation with the Graduate Advisor		18
Total Hours		36

<sup>2</sup> Once enrolled in COSC 6347, the student must enroll in this course until graduation.