MASTER OF SCIENCE IN DIGITAL FORENSICS

The Master of Science in Digital Forensics is a thirty hour program that prepares students for service in a variety of public and commercial arenas such as digital forensics or as network security professionals. In particular, graduates from the Digital Forensics program will be able to effectively plan, establish, and administer security and information assurance systems in commercial settings and law enforcement. This program utilizes state-of-the-art facilities, like Sam Houston State University's Cyber Forensics Intelligence Center. The facility includes a Network Security Lab, accommodating training in data, network and cyber security intrusion detection, prevention and tracing, and a Data Recovery Lab that will provide training in the identification, recovery, and preservation of data for legal purposes.

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/graduate/digital-forensics/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Applicants seeking admission to the Master of Science in Digital Forensics must submit the following directly to the Office of Graduate Admissions (https://www.shsu.edu/dept/graduate-admissions/prospective-students.html):

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. Up-to-date Resume
5. Two letters of recommendation that address the applicant's qualification for graduate study

This degree is accessible to students who have completed undergraduate Computer Science or Criminal Justice majors or minors and to those with baccalaureate degrees in technical fields with the equivalent of a Computer Science or Criminal Justice minor in formal coursework or professional experience. Applicants who do not possess the appropriate academic, technical, or experiential backgrounds may be required to take stem work courses. In addition, admission preference is given to applicants with a GPA of 3.0 or greater.

Stem Requirement

At the minimum, students are expected to present a background comparable to that provided in the following courses as described in the Undergraduate Catalog of Sam Houston State University:

Prerequisite courses

Code	Title	Hours
Prerequisite Courses		
COSC 2327	Introduction to Computer Networks	3
COSC 3318	Data Base Management Systems	3
MATH 1420	Calculus I	4
STAT 3379	Statistical Methods in Practice	3

Students **who have not fulfilled** the prerequisites in formal coursework **are required** to take one or more of the graduate stem courses, in addition to the 30 semester credit hours required in the MS in Digital Forensics.

Graduate Stem Course Requirements

Code	Title	Hours
Graduate Stem Course Requirements		
COSC 5301	Quantitative Foundations of Computer Science	3
COSC 5302	Computer Science Core Topics	3

The degree requires a minimum of thirty hours of graduate credit. All MS students in Non-Thesis or Professional Options are obligated to fulfill and achieve a passing grade in written or oral comprehensive exams for core subjects where they obtained a grade of B or lower. Exams are conducted during their terminal semester. Should a student fail one or more examinations, a re-examination shall be permitted per department approval. A third examination may be permitted only with the approval of the appropriate academic dean and the department. Students must be enrolled at SHSU in the semester in which the comprehensive exams are administered.

An MS Project or Thesis committee will be established either before or during the student's penultimate semester. The committee should consist of a committee chair (supervisor) and a minimum of two additional committee members, all holding the appropriate graduate faculty status. With the approval of the department, academic dean, and Dean of The Graduate School, the committee may include one member who is not employed by SHSU, as per Academic Policy Statement 950601. The selection of the committee chair hinges on the student's preference, faculty availability, and expertise. Once a faculty member agrees to assume the role of chair, the student, under the chair's guidance, will proceed to select the remaining

committee members. Subsequently, the committee's constitution needs approval from both the Graduate Coordinator and the Dean. Any alterations to the committee's composition will similarly require approval through the same process.

Master of Science in Digital Forensics (Non-Thesis Option)

Code	Title	Hours
Master of Science in Digital Forensics (Non-Thesis Option)		
Specified Courses		
DFSC 5315	Network and Cyber Security	3
DFSC 5316	File System Forensics	3
DFSC 5317	Digital Security	3
DFSC 5318	Cyber Law	3
DFSC 5327	Digital Forensics Investigation	3
DFSC 6347	Directed Management and Development Project [1]	3
Electives		
Select four graduate courses in DFSC or COSC graduate courses [2]		12
Total Hours		**30**

[1]   Once enrolled in DFSC 6347, the student must enroll in this course until graduation.
[2]   COSC 5301 and COSC 5302 do not count towards the degree plan.

Master of Science in Digital Forensics (Thesis Option)

The Master of Science in Digital Forensics (Thesis Option) can better prepare students interested in pursuing Ph.D. degrees or related fields, providing valuable research experience and a strong academic foundation. It also provides students with greater flexibility and choice in how they tailor their academic experience to align with their interests and career goals.

Code	Title	Hours
Master of Science in Digital Forensics (Thesis Option)		
Degree Specific Requirements		
COSC 6049	Thesis	3
COSC 6348	Thesis	3
DFSC 5315	Network and Cyber Security	3
DFSC 5316	File System Forensics	3
DFSC 5317	Digital Security	3
DFSC 5318	Cyber Law	3
DFSC 5327	Digital Forensics Investigation	3
Electives		
Select three graduate courses in DFSC or COSC graduate courses [1]		9
Total Hours		**30**

[1]   COSC 5301 and COSC 5302 do not count towards the degree plan.

Master of Science in Digital Forensics (Professional Option)

The Master of Science in Digital Forensics (Professional Option) requires only coursework without a thesis or MS project. This plan is suggested for working professionals and individuals seeking to enhance their skills and knowledge in digital forensics.

Code	Title	Hours
Master of Science in Digital Forensics (Professional Option)		
Degree Specific Requirements		
DFSC 5315	Network and Cyber Security	3
DFSC 5316	File System Forensics	3
DFSC 5317	Digital Security	3
DFSC 5318	Cyber Law	3
DFSC 5327	Digital Forensics Investigation	3
DFSC 5338	Ethical Hacking	3

DFSC 6312	Multimedia Forensics	3
Electives		
Select three graduate courses in DFSC or COSC graduate courses [1]		9
Total Hours		**30**

[1]   COSC 5301 and COSC 5302 do not count towards the degree plan.

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The MS in Digital Forensics is designed to provide graduates with the following marketable skills:

- Establish & operate an investigator's lab and process digital evidence.

- Develop plans to safeguard digital files against unauthorized modification and destruction.

- Create plans and implement strategies for preventing attacks to a network.

- Acquire a strong academic foundation in Cyber Security needed to pursue Doctoral level programs.