

MASTER OF SCIENCE IN DATA SCIENCE & INFORMATICS (CYBERSECURITY)

Web Site: <https://twu.edu/informatics/graduate-program/>

Degree Requirements

Effective July 29, 2024: Students without a background in Informatics may be required to complete the proficiency foundational coursework CSCI 5001 and CSCI 5011 at the determination of the program coordinator.

Total Semester Credit Hours Required

The degree program consists of a minimum of 30 semester credit hours (SCH) of graduate coursework, 12 of which are foundations in computer science and 18 of which are discipline-specific coursework, including three SCHs in software/statistical tools. The program is completed with an interprofessional, interdisciplinary capstone project.

Recommended course sequence

1. Students requiring proficiency in courses CSCI 5003 and CSCI 5203 should complete these courses before enrolling in other classes.
2. CSCI 5103 should be taken in the first semester of study.
3. CSCI 5123 and CSCI 5573 should be taken in the first year of study.
4. CSCI 5923 should be taken in the last semester of study.

All other courses may be taken in any sequence unless a required prerequisite is noted. Contact the advisor if you have any questions.

Code	Title	SCHs
Proficiency Courses (may be waived)		0-6
CSCI 5003	Information Systems Infrastructure and Programming	
CSCI 5203	Database Systems	
Computer Science Core		
CSCI 5103	Fundamentals of Informatics	3
CSCI 5123	Foundations of Information Systems Security	3
CSCI 5573	Foundations of Data Science	3
CSCI 5673	Big Data: Management, Access, and Use	3
Total SCHs		12-18

Application Area: Cybersecurity Option

Code	Title	SCHs
CSCI 5133	Information Security Risk Management	3
CSCI 5413	Data Communication Networks	3
CSCI 5743	Cryptography	3
CSCI 5923	Capstone in Informatics	3
Select two of the following		6
CSCI 5143	Human Aspects in Cybersecurity: Ethics, Legal Issues, and Leadership	
CSCI 5343	Computer Forensics	
CSCI 5423	Web Application Security	

CSCI 5453 Usable Privacy and Security

CSCI 5683 Big Data Security

Total SCHs **18**

Cooperative Education

In order for coursework in Cooperative Education to be counted as degree credit, department and advisory committee approval must be received during the semester in which the course is taken. This approval is in addition to approval to enroll in Cooperative Education coursework. Only three semester credit hours of Cooperative Education may be counted toward the Master's degree.