CYBERSECURITY (MS)

Program Overview

The Master of Science in Cybersecurity offered by the TSYS School of Computer Science provides students with the opportunity to join the cybersecurity workforce as well-qualified professionals. Students learn how to protect critical information infrastructures by developing, implementing and maintaining appropriate cybersecurity techniques, policies, and practices to help prevent, detect and eliminate security threats. The program offers two concentrations: Cyber Defense and Management.

Career Opportunities

- Cybersecurity Manager
- Cybersecurity Management Consultant
- Cyber Security Analyst- Awareness and Education
- Cybersecurity Regulatory Governance Lead
- Cyber Security Measures and Reporting Lead
- IT Cyber Security Controls Assessor
- Information Security Governance Specialist
- Cybersecurity Regulatory Compliance Instructor
- Cybersecurity Policy and Compliance Analyst

Program of Study

The Master of Science in Applied Computer Science program requires students to complete 30 hours of computer science coursework and the exit course CYBR 6000 Graduate Exit Examination. The students must select one of the following two concentrations:

1. Cyber Defense
2. Management

Cyber Defense

Code	Title	Credit Hours
Area 1 Program Core		
CYBR 6126	Introduction to Cybersecurity	3
CYBR 6136	Human Aspects of Cybersecurity	3
CPSC 6157	Network and Cloud Management	3
CYBR 6167	Cybersecurity Risk Management	3
Area 1 Total		12
Area 2 Program Concentration		
CPSC 6125	Operating Systems Design and Implementation	3
CYBR 6128	Network Security	3
CYBR 6159	Digital Forensics	3
CYBR 6226	Cloud Computing Security	3
Area 2 Total		12
Area 3 Program Electives		**6**
Select either of the following options:		
6 credits of 6000-level CPSC or CYBR courses (including an internship) [1]		
6 credits of Capstone (CYBR 6299)		
6 credits of Thesis (CYBR 6985 and CYBR 6986)		
Area 3 Total		6
Area 4: Graduate Exit Examination		
CYBR 6000	Graduate Exit Examination [2]	0
Total Credit Hours		**30**

[1] With the exception of CPSC 6105 Fundamental Principles of Computer Science, CPSC 6103 Computer Science Principles for Teachers, and CPSC 6106 Fundamentals of Computer Programming and Data Structures.

[2] Graduating students must successfully complete CYBR 6000 Graduate Exit Examination which will require the student to complete an exit survey, an exit interview, and a comprehensive exam.

Management

Code	Title	Credit Hours
Area 1 Program Core		
CYBR 6126	Introduction to Cybersecurity	3
CYBR 6136	Human Aspects of Cybersecurity	3
CPSC 6157	Network and Cloud Management	3
CYBR 6167	Cybersecurity Risk Management	3
Area 1 Total		12
Area 2 Program Concentration		
CYBR 6222	Foundation of Cybersecurity Policy and Management	3
CYBR 6228	Global Cybersecurity	3
MSOL 6115	Organizational Behavior and Leadership	3
Choose one of		3
MSOL 6155	Strategic Leadership and Change Management	
MSOL 6165	Organizational Ethics and Values	
Area 2 Total		12
Area 3 Program Electives		**6**
Select either of the following options:		
6 credits of 6000-level CPSC or CYBR courses (including an internship) [1]		
6 credits of Capstone (CYBR 6299)		
6 credits of Thesis (CYBR 6985 and CYBR 6986)		
Area 3 Total		6
Area 4: Graduate Exit Examination		
CYBR 6000	Graduate Exit Examination [2]	0
Total Credit Hours		**30**

[1] With the exception of CPSC 6105 Fundamental Principles of Computer Science, CPSC 6103 Computer Science Principles for Teachers, and CPSC 6106 Fundamentals of Computer Programming and Data Structures.

[2] Graduating students must successfully complete CYBR 6000 Graduate Exit Examination which will require the student to complete an exit survey, an exit interview and a comprehensive exam.

Admissions Requirements

- An undergraduate degree in any field from an accredited college or university with a minimum 2.75 cumulative undergraduate GPA. The minimum GPA requirement is waived for those with a GRE score of

290 or above or acceptable demonstrated work experience in the IT industry.

- A current resume reflecting professional experience and/or academic achievements.
- Students in the Cyber Defense concentration who meet the admission requirements but do not have a CS or related degree will be required to complete the courses CPSC 6105 Fundamental Principles of Computer Science and CPSC 6106 Fundamentals of Computer Programming and Data Structures with a grade of B or better before taking 6000-level courses for graduate credit in the program.
- Students in the Management concentration who meet the admission requirements but do not have a CS or related degree will be required to complete the course CPSC 6105 Fundamental Principles of Computer Science with a grade of B or better before taking 6000-level courses for graduate credit in the program.