Cybersecurity (M.S.)

Overview

The Cybersecurity Master’s program curriculum consists of 10 courses (30 credits) that can be completed over 12 months, following a hybrid (on-campus and online) delivery model. Students who track with their entry cohort can complete the program in three semesters (fall, spring, summer). Students may select to complete a thesis through two courses instead of a capstone project and fifth elective. Classes will be offered in the evenings and during the weekends.

Prerequisites

All undergraduate majors are welcomed. Professional knowledge or experience equivalent to the following four courses is required:

1. Computer Programming with basic algorithms (in C, C++, Java, R or Python) (e.g., CISC 5300 Computer Programming C++ or CISC 5380 Programming with Python)
2. Applied Statistics and Probability (e.g., CISC 5420 Applied Statistics and Probability)
3. Discrete Mathematics including basic combinatorics and graph theory (e.g., CISC 5400 Discrete Structures)

Bridging courses are available for students who are missing one or more of the aforementioned prerequisites. With the permission of the Program Director, these courses can be taken concurrently with the cybersecurity courses. If you are required to take these courses, it will be stated in your admissions letter and the courses must be taken during the first semester.

Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 5009</td>
<td>Network Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CISC 5650</td>
<td>Cybersecurity Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CISC 5750</td>
<td>Information Security and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CISC 6680</td>
<td>Intrusion Detection and Network Forensics</td>
<td>3</td>
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<td>Four elective courses, with the option to pursue an internship</td>
<td>12</td>
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One selection from the following: 2

- CISC 6095 Master’s Thesis in MSCY I
- & CISC 6096 and Master’s Thesis in Cybersecurity II

Capstone and Elective

- CISC 6090 Capstone Project in Cybersecurity

One additional elective from the selection below

Total Credits 30

1. CISC 5009 Network Essentials and CISC 5650 Cybersecurity Essentials must be taken in the first semester.

2. Capstone and thesis courses can only be taken during the second or third semester.

Electives

Courses in this group have the CYSM attribute.