Proposed CSSE Graduate Certificate in Cybersecurity Engineering

Initial Courses Starting Fall 2019

A proposed four-course graduate certificate program in the Department of Computer Science and Systems Engineering focuses on analysis, development, investigation, protection, and defending of computer information systems. The certificate program equips students with the cybersecurity engineering and technical skills.

Courses will be offered in both an on-campus format and through the Auburn Engineering Graduate Online Program, which produces videos of on-campus lectures and makes them available to students through Panapto and the CANVAS learning management system.

The courses in this program include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Name</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>COMP6350/6356</td>
<td>Digital Forensics</td>
<td>Computer compromise and forensics, with focus on computer crime and ways to uncover, protect, and exploit digital evidence.</td>
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<tr>
<td>COMP7370/7376</td>
<td>Advanced Computer and Network Security</td>
<td>Advanced, research-based examination of computer network attack and defense techniques, viruses and other malware; operating system vulnerabilities and safeguards.</td>
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<tr>
<td>COMP7720/7726</td>
<td>Software Re-Engineering</td>
<td>Process, methods and tools associated with re-engineering software systems.</td>
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Course Sequence:

Defending Computer Systems

COMP6370/6376
Computer and Network Security

COMP7370/7376
Advanced Computer and Network Security

Analysis and Protection

COMP6350/6356
Digital Forensics

Software Engineering

COMP7720/7726
Software Re-Engineering

General Prerequisites:
- Basic software process and modeling

Initial Offerings (preliminary – subject to adjustment):
- Fall 2019: COMP6370/6376 Computer and Network Security
- Spring 2020: COMP7370/7376 Advanced Computer and Network Security
- Spring 2020: COMP6350/6356 Digital Forensics
- Fall 2020: COMP7720/7726 Software Re-Engineering

Contact Xiao Qin at xqin@auburn.edu with questions!