

## Template comparison of the general/specialization

MS in SE	MS in SE – Cybersecurity Specialization
<p>Required Coursework (9 credits)</p> <ul style="list-style-type: none"> <li>• SER 501 Advanced Data Structures and Algorithm Analysis (3)</li> <li>• SER 502 Emerging Language and Programming Paradigms (3)</li> <li>• SER 515 Foundations of Software Engineering (3)</li> </ul>	<p>Required Coursework (9 credits)</p> <ul style="list-style-type: none"> <li>• SER 501 Advanced Data Structures and Algorithm Analysis (3)</li> <li>• SER 502 Emerging Language and Programming Paradigms (3)</li> <li>• SER 515 Foundations of Software Engineering (3)</li> </ul>
<p>Software Engineering Elective Courses (6 credits)</p> <ul style="list-style-type: none"> <li>• Two courses (6 credits) from the following list: SER516, SER574, CSE563, CSE564, CSE565, or CSE566.</li> </ul>	<p>Software Engineering Elective Courses (6 credits)</p> <ul style="list-style-type: none"> <li>• Two courses (6 credits) from the following list: SER516, SER574, CSE563, CSE564, CSE565, or CSE566.</li> </ul>
<p>Culminating Experience Options (3-6 credits)</p> <ul style="list-style-type: none"> <li>• Capstone: SER 517 Software Factory I (3 credits)</li> <li>• Thesis: SER 599 Thesis (6 credits) over 2 semesters</li> </ul>	<p>Culminating Experience Options (3-6 credits)</p> <ul style="list-style-type: none"> <li>• Capstone: SER 517 Software Factory I (3 credits)</li> <li>• Thesis: SER 599 Thesis (6 credits) over 2 semesters</li> </ul>
<p>Free Elective Courses (9-12 credits), depending on the culminating experience)</p> <ul style="list-style-type: none"> <li>• Maximum of 3 credits of SER4XX-level coursework.</li> <li>• Maximum of 3 credits of CSE 500-level coursework, not including the CSE software engineering courses CSE563, CSE564, CSE565, and CSE566.</li> <li>• The remaining elective credits must be drawn from the SER5xx elective courses offered from the catalog, or by taking additional software engineering elective courses beyond the credits required above.</li> </ul>	<p>Cybersecurity Emphasis (9 credits):</p> <ul style="list-style-type: none"> <li>• CSE 543 Required</li> <li>• Choose 2 courses from the following: CSE 539, 545, 548, or Cybersecurity-related 591 such as "Computer Security: Techniques and Tactics"</li> </ul>
	<p>Free Elective Courses (0 -3 credits), if choosing Software Factory as culminating experience)</p> <ul style="list-style-type: none"> <li>• Must be drawn from the SER5XX/4XX elective courses offered from the catalog, or by taking additional software engineering elective course(s) beyond the credits required above.</li> <li>• Maximum of 3 credits of SER4XX-level coursework</li> </ul>

### Cyber Security Courses:

CSE 543 Information Assurance and Security (Fall & Spring)

CSE 539 Applied Cryptography (Spring)

CSE 545 Software Security (Fall & Spring)

CSE 548 Adv Computer Network Security (Spring)

CSE 591 Current Topics in Cybersecurity (Fall)