

**GRADUATE**  
Certificate in  
Cybersecurity

**UMSL** | Computer Science  
University of Missouri–St. Louis

UMSL is a NSA/DHS National Center of Academic Excellence in Cyber Defense Education



College of Arts and Sciences

**Department of Computer Science**

One University Boulevard  
St. Louis, Missouri 63121-4400  
Telephone: 314-516-5743  
Fax: 314-516-5400

## Graduate Certificate in Cybersecurity



The Graduate Certificate in Cybersecurity is a four-course (12 credit hours) multidisciplinary program housed in the Graduate School. It is designed to help students from all backgrounds achieve a foundation in information security. It provides students the flexibility to focus on technical and/or managerial aspects of computer, software, network, and information security. With primary courses offered by Computer Science and Information Systems departments, the program also allows students to choose from a range of electives based on student interests. This certificate serves a broad group of managers, technical specialists, and professionals with a bachelor's degree. A prior background in information security is not required to enter this program.

Core Courses: take three		Availability
<a href="#">CMP SCI 5702</a>	Cyber Threads and Defense	FP
Or <a href="#">INFSYS 6828</a>	Principles of Information Security	FP
<a href="#">CMP SCI 4730</a>	Computer Networks	FP
Or <a href="#">INFSYS 6836</a>	Telecommunications Design and Management	TBD
<a href="#">CMP SCI 5782</a>	Advanced Information Security	P
Or <a href="#">INFSYS 6858</a>	Advanced Cybersecurity Concepts	P
Electives: choose one		
<a href="#">CMP SCI 4700</a>	Computer Forensics	F
<a href="#">CMP SCI 5020</a>	Android Apps: Android Fundamentals	P
<a href="#">CMP SCI 5222</a>	Advanced iOS Apps	F
<a href="#">CMP SCI 5732</a>	Cryptography for Computer Security	S
<a href="#">CMP SCI 5750</a>	Cloud Computing	F
<a href="#">CMP SCI 5792</a>	Mobile Computing, Networking and Security	P
<a href="#">CMP SCI 5794</a>	Security of IoT Systems	F
<a href="#">INFSYS 6830</a>	Data Programming for Business Intelligence	TBD
<a href="#">INFSYS 6862</a>	Artificial Intelligence App for Business and Cybersecurity	TBD
<a href="#">INFSYS 6864</a>	Applied Cryptography for Business Applications	TBD
<a href="#">INFSYS 6868</a>	Software Assurance	FP
<a href="#">INFSYS 6878</a>	Management of Information Security	FP
Total Courses		4

Students may substitute courses with the approval of the graduate program director of the department of focus. A maximum of two (2) 4000-level courses can be taken as part of the graduate certificate. A minimum of three courses must be taken from UMSL. For more information visit <http://cybresecurity.umsl.edu> or contact the program directors.

Dr. Dinesh Mirchandani ([mirchandani@umsl.edu](mailto:mirchandani@umsl.edu)) or Dr. Cezary Janikow ([janikowc@umsl.edu](mailto:janikowc@umsl.edu))

For more info about Computer Science visit [umsl.edu/cs](http://umsl.edu/cs), for careers visit [umsl.edu/cs/careers](http://umsl.edu/cs/careers).

For electronic version visit <http://umsl.edu/cs/certificates>.

**Availability:** Summer (S), Fall (F), Spring (P)

**Mode:** Online Evening

For course rotation visit <https://www.umsl.edu/cmppsci/graduate-studies/3yeacourse.html>