CYBER OPERATIONS

Master of Science in Cyber Operations

Excel in the high-demand field of cybersecurity.

From cyber defense to intelligence analysis, the STEM-designated, fully online Master of Science in Cyber Operations (MS CO) empowers students with the tools to thrive in high-stakes digital environments.

> ***The Master's in Cyber Operations enabled me to transition from a strong worker to a knowledgeable leader in both military and federal service, unifying my operational experience with advanced cyber education to better serve and protect in today's evolving threat landscape.***
>
> **– Jonathan Hernandez-Lowery, MS CO '25**

WHAT YOU'LL LEARN

- Automated detection mechanism development
- Real-world cyber issue solution application
- Network, computer infrastructure, and applications defense
- Python scripting language and automated solutions design
- Adversarial information operations
- Cyberattack analysis and defense

CAREER POSSIBILITIES

Armed with cutting-edge skills and strategic insight, MS CO graduates are prepared to lead across sectors in diverse cybersecurity roles such as:

- Cybersecurity Analyst
- Cyber Advisor
- Cyber Analyst
- Information Security Analyst
- Federal/State Law Enforcement
- Cyber Threat Intelligence Analyst
- Cyber Operations Officer
- Intelligence Specialist
- Strategic Analyst
- Information Warfare Officer
- Social Media Analyst
- PSYOPS Specialist

30
Academic units required

12
Complete your degree in as few as 12 months

$133K
Average salary for cybersecurity master's graduates*

* According to ZipRecruiter, June 2025.

Ready to excel in the high-demand field of cybersecurity?

infosci.arizona.edu/ms-co

infosci-grad@arizona.edu

THE UNIVERSITY OF ARIZONA
College of Information Science

MASTER OF SCIENCE IN CYBER OPERATIONS

CURRICULUM

30 units are required for graduation.

SUPPORTING COURSEWORK*	
May be required depending on programming background.	
CYBV 500: Security Programming	**3 units**

CORE COURSES	
CYBV 501: Principles of Cybersecurity	**3 units**
CYBV 523: Covert Python	**3 units**
CYBV 529: Cyber Law, Ethics and Policy	**3 units**
CYBV 579: Cloud Security	**3 units**
CYBV 626: Traffic Analysis	**3 units**
CYBV 660: Zero Trust Defensive Techniques	**3 units**
CYBV 685: Information Warfare	**3 units**
TOTAL	**21 units**

ELECTIVE COURSES	
Students that elect the Master's Report will choose from CYBV 525, 528, 535 and 680. Those who elect the Master's Thesis will take CYBV 692 and CYBV 696 (Research Methods).	
CYBV 525: Cyber-Physical Systems	**3 units**
CYBV 528: Operational Tradecraft in the Information Environment	**3 units**
CYBV 535: Secure Critical Infrastructures with Artificial Intelligence	**3 units**
CYBV 680: Advanced Computational Propaganda	**3 units**
CYBV 692: Directed Research	**3 units**
CYBV 696: Special Topics	**3 units**
TOTAL	**6 units**

CULMINATION COURSES	
Complete a total of 3 units:	
CYBV 909: Master's Report in Cyber Operations	**3 units**
CYBV 910: Master's Thesis in Cyber Operations	**3 units**
TOTAL	**3 units**
DEGREE TOTAL	**30 units**

The MS CO curriculum is subject to change based on catalog year, transfer work, etc. The official degree requirements may be found in the University General Catalog and all University of Arizona students should refer to the Academic Advising Report for specific graduation requirements.

* Although not required for admission, it is recommended that students applying to the MS CO have computer programming experience. If students do not have a background in programming, or they have no recent coursework or experience (within three years), they will be required to take CYBV 500 Security Programming in their first semester.