



Computer Science Core Curriculum (Master of Science)

Advanced Cyber Security / Cyber Operations Career Focus (2020-21)

Aligned with ACM Cybersecurity Curriculum, NSA/DHS Cyber Ops Curriculum and NIST National Initiative for Cybersecurity Education Framework

Required Courses:

- CS 5250 Advanced Computer Architecture (3)
- CS 5300 Advanced Algorithm Design and Analysis (3)
- CS 5800 Advanced Software Engineering (3)
- CS 6640 Graduate Seminar (1)

Required Elective Courses:

- CS 4990 Cryptography and Information Security (3)
- CS 4990 Software Security and Reverse Engineering (3)
- CS 5990 Advanced Information Security (3)
- CS 5990 Data Privacy and Security (3)
- CS 5990 Machine Learning for Cyber Security (3)
- CS 5650 Advanced Computer Networks (3) for Project option only.

Required Project or Thesis:

- CS 6910 Directed Study in *Cyber Security/ Cyber Operations topics* (1)
- CS 6950 Master's Degree Project in *Cyber Security/ Cyber Operations topics* (1)
- or
- CS 6910 Directed Study in *Cyber Security/ Cyber Operations topics* (2)
- CS 6960 Master's Degree Thesis in *Cyber Security/ Cyber Operations topics* (3)

*Students completing the Advanced Cyber Security/ Cyber Operations Career Focus Electives will receive the Advanced PolySec Cyber Warrior Digital Badges.
Please e-mail polysec@cpp.edu for more information.*