Master of Science in Computer Science
(CAE Cyber Systems and Operations specialization)
Naval Postgraduate School

Core Computer Science Courses
CS2011 Computing System Principles (4-0)
CS3021 Intermediate Programming & Data Structures (4-2)
CS3040 Low-Level Programming I (4-2)
CS3060 Database Systems (3-1)
CS3070 Operating Systems (3-2)
CS3101 Theory of Formal Languages and Automata (4-2)
CS3140 Low-Level Programming II (3-2)
CS3150 Design and Analysis of Algorithms (4-0)
CS3200 Computer Architecture (3-2)
CS3250 Introduction to Cyber-Physical Systems (3-2)
CS3310 Artificial Intelligence (4-1)
CS3315 Introduction to Machine Learning and Big Data (3-1)
CS3502 Computer Communications & Networks (4-2)
CS3600 Introduction to Computer Security (4-2)
CS4900 Technology and Transformation 1 (2-0)
CS4903 Research Methods in CS (2-0)
CS4924 Seminar Series in Computer Science and Cyber Operations (1-0)
OS3307 Modeling Practices for Computing (4-1)
CS0810 Thesis Research (0-8) – 3 to 4 instances of this course comprise total thesis time

Cybersecurity and Defense Specialization and Elective Courses
CS3004 Human-Computer Interaction (3-2) (Optional)
CS3670 Secure Management of Systems (3-2) (Optional)
CS3690 Network Security (4-1) (Optional)
CS4538 Mobile Device and Wireless Security (3-1) (Optional)
CS4600 Secure Computer Systems (3-2) (Mandatory)
CS4648 Advanced Cyber Munitions (3-2) (Mandatory)
CS4677 Computer Forensics (3-2) (Optional)
CS4678 Advanced Cyber Vulnerability Assessment 4-1) (Optional)
CS4679 Advanced Cybersecurity Operations (4-1) (Mandatory)
CY4710 Adversarial Cyber Operations (3-2) (Optional)
EC3740 Reverse Engineering in Electronic Systems (3-2) (Optional)
EC3800 Microprocessor-Based System Design (3-2) (Optional)

All core courses must be completed. All courses associated with mandatory CAE-CO knowledge unit requirements and at least four CAE-CO meeting optional knowledge unit requirements must be completed to qualify for certification of completion of the National Centers of Academic Excellence in Cybersecurity Program in Cyber Operations. The list given here may be a subset of those courses required of certain students in Computer Science program. Examples include Joint Professional Military Education courses required of many military students.