

New Minors in Computer Science
Available Fall 2018
(Update 7/3/2018)

MINOR IN CYBERSECURITY (19 – 20 hours)

Required courses (13 – 14 hours):

- One of:
 - CMPS 1013 Computer Concepts & Applications
 - CMPS 1023 Computing for Science Majors
 - CMPS 2084 Introduction to Computer Architecture
- CMPS 1044 Computer Science 1
- CMPS 1063 Data Structures & ADT
- CMPS 4663 Topics in Computer & Networking Security: Cybersecurity

Electives (6 hours)

- CMPS 4103 Introduction to Operating Systems
- CMPS 4663 Topics in Computer & Networking Security: Computer Forensics
- CMPS 4663 Topics in Computer & Networking Security: Network Security
- CMPS 4663 Topics in Computer & Networking Security: Software Security (Web applications)
- CMPS 4663 Topics in Computer & Networking Security: Cryptography (MATH course in Cryptography can be substituted.)

MINOR IN HIGH PERFORMANCE COMPUTING

Required Courses (23 hours) – Non-Math Majors

- CMPS 1044 Computer Science 1
- CMPS 1063 Data Structures & ADT
- MATH 1634 Calculus 1
- MATH 2753 Linear Algebra
- CMPS 4563 Topics in Parallel & Distributed Computing: GPU Programming
- CMPS 4563 Topics in Parallel & Distributed Computing: High Performance Computing
- CMPS 4563 Topics in Parallel & Distributed Computing

Required Courses (19-20 hours) – Math Majors

- CMPS 1044 Computer Science 1
- CMPS 1063 Data Structures & ADT
- 3 Credit hours CMPS (approved by Department Chair) (CMPS 2084 Introduction to Computer Architecture recommended)
- CMPS 4563 Topics in Parallel & Distributed Computing: GPU Programming
- CMPS 4563 Topics in Parallel & Distributed Computing: High Performance Computing
- CMPS 4563 Topics in Parallel & Distributed Computing

MINOR IN COMPUTATIONAL SCIENCE – (19 – 22 hours)

Required Courses (7 hours)

- CMPS 1044 Computer Science 1
- CMPS 1023 Computing for Science Majors

Choose 6-8 hours from the following (2 courses)

- CMPS 1063 Data Structures and ADTs
- CMPS 2433 Discrete Structures & Analysis
- MATH 1634 Calculus 1
- MATH 1734 Calculus 2
- MATH 2534 Calculus 3
- MATH 2753 Linear Algebra
- PHYS 1624 Mechanics, Wave Motion & Heat
- PHYS 2644 Electricity & Magnetism & Optics
- GEOS 1134 Physical Geology

Applied Math

Choose 3 hours from the following (1 course)

Math majors applying all courses to the major may substitute an advanced course from another category. Prerequisites for all courses must be met.

- CMPS 3533 Numerical Analysis
- MATH 3533 Numerical Analysis
- MATH 3433 Differential Equations
- STAT 3573 Probability and Statistics

Choose 3-4 hours from the following (1 course)

- CMPS 3013 Advanced Data Structures & Algorithms
- CMPS 4233 Artificial Intelligence
- CMPS 4553 Topics in Computational Science
- MATH 4243 Operations Research
- MATH 3353 Discrete Dynamical Systems
- PHYS 3333 Thermodynamics
- PHYS 3343 Modern Physics I
- GEOS 3434 Structural Geology
- GEOS 3634 Fundamentals of Remote Sensing
- GEOS 4013 Data Analysis for the Geological Sciences