## **COMPUTATIONAL SCIENCE GRADUATE MINOR**

## **Minor Requirements**

Requirements listed here are in addition to requirements for minors in Graduate Council policies listed under GCAC-600 Research Degree Policies (https://gradschool.psu.edu/graduate-education-policies/) and GCAC-700 Professional Degree Policies (https://gradschool.psu.edu/ graduate-education-policies/).

The minor offers an opportunity for students in all colleges and majors to pursue a focused set of courses that emphasize computational science. The minor requires 9 credits in computational science courses for a master's degree and 15 credits for a doctoral minor.

Code	Title	Credits
Required Courses		
Select at least one of the following courses:		3
AERSP 424	Advanced Computer Programming	
CMPSC 450	Concurrent Scientific Programming	
NUCE 530	Parallel/Vector Algorithms for Scientific Applications	
CSE 557	Concurrent Matrix Computation	
Select at least one of the following courses:		3
MATH 523	Numerical Analysis I	
MATH/CSE 550	Numerical Linear Algebra	
STAT 500	Applied Statistics	
STAT/IST 557	Data Mining I	
Select additional credits from a list of approved courses <sup>1</sup>		3-9
Total Credits		9-15

<sup>1</sup> The additional credits will be chosen from a list of approved courses maintained by the graduate minor program.

In addition, for the Master's Minor and Ph.D. Minor the students can use at most 6 and 9 credits, respectively, from (or cross-listed with) their home department.