COMPUTATIONAL SCIENCE
GRADUATE MINOR

Minor Graduate Program Head
Daning Huang

Program Code
CSCI

Campus(es)
University Park

The Graduate Faculty
View (https://secure.gradsch.psu.edu/gpms/?searchType=fac&prog=CSCI)

The Department of Aerospace Engineering administers this interdisciplinary minor. Each student's program is planned by the student and a designated computational science adviser, in consultation with the graduate adviser in the student's major field.

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.

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

Total Credits 9-15

1 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.

Courses
Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Contact
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