

# COMPUTATIONAL MATERIALS 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 doctoral minor consists of no fewer than 15 credits, 9 credits of which must be from a list of core minor courses, and 6 credits of which are elective courses. A minimum of 6 credits must be at the 500 level.

Code	Title	Credits
<b>Core Minor Courses</b>		
Select 9 credits from the following:		9
CHEM 565	Quantum Chemistry I	
CHEM 566	Quantum Chemistry II	
PHYS 561	Quantum Mechanics I	
PHYS 512	Quantum Theory of Solids I	
MATSE 419	Computational Materials Science and Engineering	
MATSE 544	Computational Materials Science of Soft Materials	
MATSE 580	Computational Thermodynamics	
MATSE 581	Computational Materials Science II: Continuum, Mesoscale Simulations	
<b>Electives</b>		
Select 6 credits from list of electives		6
<b>Total Credits</b>		<b>15</b>

A list of elective courses is maintained by the Department of Materials Science and Engineering. The Department also maintains a list of faculty who may represent the minor on dissertation committees. The minor is only available to doctoral students. Official requests to add a minor to a doctoral student's academic record must be submitted to Graduate Enrollment Services prior to establishment of the dissertation committee and prior to scheduling the comprehensive examination. At least one Graduate Faculty member from the minor field must serve on the candidate's dissertation committee.