# MATERIALS SCIENCE AND ENGINEERING, PHD

## Requirements for Students Matriculating in or before Academic Year 2023-2024

Learn more about Graduate College Academic Regulation 7.0 ([http://catalog.okstate.edu/graduate-college/#70](http://catalog.okstate.edu/graduate-college/#70)).

**Total Hours:** 72 (Group I - Beyond the Bachelor's Degree)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 5013</td>
<td>Advanced Thermodynamics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MSE 5023</td>
<td>Diffusion and Kinetics</td>
<td>3</td>
</tr>
<tr>
<td>MSE 5043</td>
<td>Advanced Materials Characterization</td>
<td>3</td>
</tr>
<tr>
<td>MSE 6010</td>
<td>Materials Science and Engineering Seminar for PhD Students</td>
<td>0</td>
</tr>
</tbody>
</table>

**Hours Subtotal:** 9

### Electives

Student must complete 27 hours of MSE or other approved 5000- and 6000-level courses offered at OSU from preselected list of MSE, CHE, ECEN, or MAE courses, or additional courses in engineering or science per committee approval.

**Hours Subtotal:** 27

### Dissertation

Thirty-six hours from:

- MSE 6000 Doctoral Dissertation

**Hours Subtotal:** 36

**Total Hours:** 72

## Total Hours: 60 (Group II - Beyond the Master's Degree from Outside OSU)

### Required Courses

Select from the following:

- MSE 5013 Advanced Thermodynamics of Materials
- MSE 5023 Diffusion and Kinetics
- MSE 5043 Advanced Materials Characterization
- MSE 6010 Materials Science and Engineering Seminar for PhD Students

**Hours Subtotal:** 9

### Electives

Group III student must complete a minimum of 15 hours and a maximum of 30 hours of required and elective coursework for his/her PhD degree in MSE at OSU. This includes the hours for any Required Courses taken after enrollment in the MSE PhD program at OSU. Elective Courses taken by the student at OSU which were used toward fulfilling his/her MS degree requirements in MSE at OSU, will not be considered toward his/her PhD degree in MSE. The student will be allowed to use a maximum of 15 hours of coursework toward his/her PhD degree in MSE at OSU, i.e., the hours for core courses for the MS degree program.

**Dissertation**

Thirty to forty-five (30-45) hours from:

- MSE 6000 Doctoral Dissertation

**Total Hours:** 60

### Total Hours: 60 (Group III - Beyond the Master's Degree from OSU)

Additional Materials Science and Engineering, PhD, Requirements

- Upon approval by the committee, students may choose other appropriate elective courses from engineering, physics and chemistry departments.
- Requirement for taking the "Required" courses for Group III Ph.D. students will be waived if they have taken that course while doing their M.S. degree at OSU. The same course however, cannot be counted towards fulfilling the credit hour requirements for two degrees (M.S. and Ph.D.) at OSU. The student will be required to fulfill the remaining coursework credit hour requirement for the Ph.D. degree by taking "Elective" courses.
- Students entering the Ph.D. program without an undergraduate/graduate degree in Materials Science and Engineering or related degree will be required to complete the ENSC 3313 Materials Science (undergraduate course) with an "A" grade or better in their first year at OSU. This will not be counted towards their degree requirements.

## Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2023-2024 Doctor of Philosophy (PhD) Degree Program Requirements ([http://catalog.okstate.edu/](http://catalog.okstate.edu/))
Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.