The doctoral program allows students to focus intensively on sustainability challenges of interest to them. Students draw upon relevant knowledge from a variety of disciplines and perform original research under the guidance of their interdisciplinary faculty supervisory committee. The program culminates in research and dissertation and prepares students for careers in research, teaching and academia.

**Course Requirements**

Students may be admitted to the PhD program with either a bachelor's or a master's degree. If admitted with a bachelor's degree, students must complete a minimum of 84 credits (and have the opportunity to earn a master's in passing). If admitted with a master's degree, they must complete a minimum of 54 credits.

<table>
<thead>
<tr>
<th>Credits Required</th>
<th>Admitted with an approved master's</th>
<th>Admitted with a bachelor's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Foundational Courses</td>
<td>9*</td>
<td>15</td>
</tr>
<tr>
<td>Solutions Workshops</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>12*</td>
<td>33</td>
</tr>
<tr>
<td>Research</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Dissertation</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Total Credits Required</td>
<td>54</td>
<td>84</td>
</tr>
</tbody>
</table>

*Assuming relevant coursework at the master's level

**Core and Foundational Courses**

The core courses are designed to provide students from diverse backgrounds with methods and theories for the study of sustainability. They also provide students with a strong foundation in the main themes of the School of Sustainability.

**Required Core Courses**

- **SOS 510: Perspectives on Sustainability** employs case studies from engineering, architecture, social sciences and natural sciences to facilitate discussion about the major challenges faced in forming a sustainable future at local, national and global levels.

- **SOS 520: Research Design and Methods for Sustainability** helps students design their own research and place it in the context of other disciplines or bodies of work. Students identify what additional training they require as they define their own research.

**Sample Foundational Courses**

Foundational courses prepare students for diverse fields of inquiry. They include both qualitative and quantitative approaches to sustainability challenges such as water, energy, corporate social responsibility, design, climate change and infrastructure. Students select foundational courses from a pre-approved list, based on interests and research focus. Contact SOSGradAdvising@asu.edu for the full, current list.
Courses that fulfill this requirement include:
• SOS 530: International Development and Sustainability
• SOS 534: Sustainable Energy and Material Use
• SOS 591: Qualitative Methods for Sustainability Problems
• SOS 598: Dynamic Modeling for Sustainability
• SOS 598: Human and Social Dimensions of Global Climate Change

Solutions Workshops
In solutions workshops like those listed below, students work in teams to develop hands-on solutions to sustainability challenges. For example, in SOS 594: Sustainable Development in Action, students work in teams with international partners on project design, monitoring and assessment in response to real-world problems.

Additional courses that fulfill this requirement include:
• Corporate Sustainability Programs
• Sustainable Neighborhoods for Happiness
• Sustainability Storytelling/Short-Form Documentary
• The Sustainability Review Workshop (publication)
• The Changing Energy Industry

Benchmarks and Exams
When a student has completed or is close to completing coursework, they may request permission to take the comprehensive exam, which is administered by the student's supervisory committee. Upon passing the comprehensive exam, the student convenes a public defense of their dissertation prospectus (proposal). PhD students achieve candidacy status after passing comprehensive exams and successfully defending a dissertation prospectus. A dissertation and final oral examination in defense of the dissertation are required.

Additional Information and Questions
For additional information, please visit https://sos.asu.edu/graduate-degrees-programs or email SOSGradSunDevil@asu.edu.