Specialization Courses (PhD)

The following list includes options for coursework within four general areas of specialization. This is not a comprehensive list; students may choose from this list or consult with their faculty advisor. Courses offered outside of SGSUP are subject to change. View the Schedule of Classes for the most current course offerings.

**Human & Environment**
- GCU 510 Solar Energy & Public Policy
- GCU 515 Human Migration
- GCU 526 Sustainability Science
- GCU 591 Seminar: Comparative Immigration
- GCU 591 Seminar: Human Environmental Science
- GCU 591 Seminar: Recycling Energy Landscapes
- GCU 591 Seminar: Urban Food Systems
- GCU 598 Special Topic: Economic Geography
- GCU 598 Special Topic: Landscape, Place and Memory
- GCU 598 Special Topic: Migration Environmental & Global Security
- GCU 598 Special Topic: Society and Natural Resources
- GPH 598 Special Topic: Conservation in Practice

**Earth Systems & Climate Science**
- GLG 591 Seminar: Geomorphology
- GPH 511 Fluvial Processes
- GPH 563 Urban Climates
- GPH 591 Seminar: Climate Change and Health
- GPH 598 Special Topic: Aeolian Geomorphology
- GPH 598 Special Topic: Air Quality Science & Policy
- GPH 598 Special Topic: Close-range Remote Sensing
- GPH 598 Special Topic: Dynamic Meteorology I
- GPH 598 Special Topic: Human & Social Dimensions of Climate Change
- GPH 598 Special Topic: Radar/Satellite Meteorology
Specialization Courses (PhD)

GPH 598  Special Topic: Synoptic Meteorology I

**GIScience & Spatial Data Analytics**

GIS 494  Special Topic: GIS for Climate Change Science
GIS 494  Special Topic: GIS and Public Health
GIS 561  Fundamentals of Spatial Optimization
GIS 562  Location Analysis and Modeling
GIS 563  Local Statistical Modeling
GIS 591  Seminar: Data Mining & Data-Driven Geography
GIS 598  Special Topic: Geodesign and Urban Planning
GIS 598  Special Topic: Geodesign and Urban Planning Practicum
GPH 569  Digital Analysis of Remotely Sensed Data
GPH 591  Seminar: Advanced Spatial Analysis
GPH 598  Special Topic: Advanced Digital Analysis
GPH 598  Special Topic: Close-range Remote Sensing

**Urban Studies**

GCU 542  Geographical Analysis of Transportation
GIS 598  Special Topic: Campus Transportation Planning
PUP 501  Planning History and Theory
PUP 510  Public Participation Planning
PUP 515  International Planning & Development
PUP 520  Planning Practice, Ethics & Processes
PUP 525  Urban Housing Issues
PUP 531  Planning and Development Control Law
PUP 542  Environmental Planning
PUP 544  Urban Land Use Planning
PUP 548  Global Perspectives on Community Resilience
PUP 550  Transportation and the Environment
PUP 553  Urban Infrastructure Anatomy
PUP 564  Transportation Systems Professional Seminar
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUP 565</td>
<td>Sustainable Urbanism</td>
</tr>
<tr>
<td>PUP 591</td>
<td>Seminar: City Building in a Global Context</td>
</tr>
<tr>
<td>PUP 591</td>
<td>Seminar: Urban Food Systems</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Campus Transportation Planning</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Environment, Justice &amp; Cities</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Geodesign and Urban Planning</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Geodesign and Urban Planning Practicum</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Theory of Urban Design</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Transportation and Land Use</td>
</tr>
<tr>
<td>PUP 598</td>
<td>Special Topic: Tribal Community Planning</td>
</tr>
<tr>
<td>PUP 642</td>
<td>Urban &amp; Regional Economic Analysis</td>
</tr>
</tbody>
</table>