With urban spaces becoming data-rich environments, the goal of this minor is to provide students with the ability to use large-scale data from a variety of sources to understand and address real-world challenges in the urban context. In combining courses that address spatial analysis and mapping, data science, and social sciences, this minor provides the background necessary to investigate data-driven problems in relation to urban scenarios. A capstone project will provide students with the opportunity to address a real-world issue through focused study and applied research under the direction of a faculty member and in collaboration with stakeholders.

**Admissions & Policies**

**Policies**

Eight credits of coursework must be unique to the minor. For policies governing all minors, see AP.5.3.4 Minors (http://catalog.gmu.edu/policies/academic/undergraduate-policies/#ap-5-3-4).

Students must complete all coursework with a minimum GPA of 2.00.

For policies governing all undergraduate programs, see AP.5 Undergraduate Policies (http://catalog.gmu.edu/policies/academic/undergraduate-policies/).

**Requirements**

**Minor Requirements**

Total credits: 18

Students should refer to the Admissions & Policies tab for specific policies related to this program.

**Core Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDS 303</td>
<td>Scientific Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>GGS 306</td>
<td>Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>6</strong></td>
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**Electives**

Select one course from each of the three groups below: 9

**Spatial Analysis and Mapping Group**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGS 300</td>
<td>Quantitative Methods for Geographical Analysis</td>
<td></td>
</tr>
</tbody>
</table>