GRADUATE CERTIFICATE IN GEOGRAPHIC INFORMATION SYSTEMS

REQUIRED COURSES – Nine (9) Semester Credit Hours:

- GISC 6381 Geographic Information Systems Fundamentals
- GISC 6384 Advanced Geographic Information Systems
- GISC 6387 Geospatial Sciences Workshop

ELECTIVE COURSES – Six (6) Semester Credit Hours from the following, or as approved by the Coordinator of the Certificate Program:

- GISC 5322 GPS Satellite Surveying Techniques
- GISC 5324 3D Capture and Ground Lidar
- GISC 6301 GIS Data Analysis Fundamentals
- GISC 6317 GIS Programming Fundamentals
- GISC 6325 Remote Sensing Fundamentals
- GISC 6385 GIS Theories, Models and Issues
- GISC 6388 Advanced GIS Programming
- GISC 7310 Advanced GIS Data Analysis
- GISC 7360 GIS Pattern Analysis
- GISC 7361 Spatial Statistics
- GISC 7363 Internet Mapping and Information Processing
- GISC 7365 Advanced Remote Sensing

Individuals experienced with GIS may have the introductory course (GISC 6381) waived at the discretion of the Program Head, but must take an additional course from the topics courses listed above. GISC 6387 (GEOS 6387) Geospatial Science Workshop, a research project, needs to be taken multiple times with varied research topics if multiple certificate programs are pursued. No more than two courses may be transferred from another institution. Courses for the Certificate must be completed within a 3-year period.

COURSE SEQUENCE

Courses are offered on a rotating basis. Students can complete the certificate in four semesters. Please see the listings below for the semester in which specific courses are offered. These schedules are subject to change.
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<th>Summer</th>
<th>Fall</th>
<th>Spring</th>
<th>Elective</th>
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<tbody>
<tr>
<td>GISC 6387 (GEOS 6387): Geospatial Sciences Workshop</td>
<td>GISC 6381 (GEOS 6381): Geographic Information Systems Fundamentals</td>
<td>GISC 6384 (GEOS 6384): Advanced Geographic Information Systems</td>
<td>**GISC 6379: Special Topics in Geographic Information Sciences</td>
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<td>GISC 6317: GIS Programming Fundamentals</td>
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<td>**GISC 7361: Spatial Statistics</td>
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<td>GISC 6325 (GEOS 5325): Remote Sensing Fundamentals</td>
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<td>**GISC 7363: Internet Mapping and Information Processing</td>
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<tr>
<td>GEOS 5322 (GISC 5322): GPS (Global Positioning System) Satellite Surveying Techniques</td>
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<td>GEOS 5324 (GISC 5324): 3D Data Capture and Ground Lidar</td>
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*offered twice per year (two semesters of Summer, Fall or Spring)*

** please consult the catalog for the semester this course is offered