GIS Certificate Program
A Program of the Joint Center for GIS and Spatial Analysis (GISSA)

Guidelines during the quarter to semester transitional years

Program Description
The GIS Certificate Program is designed to meet the needs of both the novice, and experienced GIS professionals. Students who graduate from this program will have a solid understanding of the theoretical basis of GIS and rich hands-on experience with GIS software packages.

Learning Outcomes
Apply and demonstrate the principles of geographic information science
Formulate requirements and constraints in spatial analysis
Complete spatial analysis with selected GIS software packages
Develop skills for designing and implementing real-world GIS applications
Gain hands-on experience with popular GIS software such as ArcGIS
Learn how to communicate effectively via mapping and graphic presentation

Application
The GIS Certificate Program is open to both matriculated and non-matriculated students at the University of Cincinnati. Students can start the program in any quarter/semester. The deadline for application is two years after completion of all required courses. However, students are strongly encouraged to contact an advisor and apply early in the process.

Requirements
To obtain a GIS certificate, a student must complete 4 required courses specified below, with a minimum grade of C in each course. The certificate will be awarded upon application and satisfactory completion of the required courses.

(1) Remote Sensing and Cartography group (Select 1, Pre-requisite: None)
   GEOG6072 Principles and Applications of GPS
   GEOG6074 Computer Analytical Cartography
   GEOG6076 Principles of Remote Sensing

(2) Introduction to GIS group (Select 1, Pre-requisite: None)
   PLAN2054 Introduction to Geographic Information Systems
   PLAN6071 Introduction to Geographic Information Systems
   GEOG6071 Introduction to Geographic Information Sciences

(3) GIS Applications Group (Select 2)
   PLAN6091 GIS Project Formulation and Management, Pre-requisite: any 1 course under (2)
   GEOG6081 Intermediate GIS, Pre-requisite: any 1 course under (2)
   GEOG6091 Advanced GIS & Web GIS, Pre-requisite: any 1 course under (2)
   GEOG6021 Crime Mapping and Analysis, Pre-requisite: any 1 course under (2)
   GEOG6031 GIS and Public Health, Pre-requisite: any 1 course under (2)
   GEOG6089 Digital Terrain and Watershed Analysis, Pre-requisite: any 1 course under (2)
   GEOG6087 Hyperspectral/Thermal Remote Sensing, Pre-requisite: GEOG6076
   GEOG6096 Advanced Remote Sensing and Image Analysis, Pre-requisite: any 1 course under (1)
   GEOG6099 Exploratory Visual Analytics, Pre-requisite: any 1 course under (2)
   GEOG7091 Seminar: GIS, Pre-requisite: any 1 course under (2)
Lower level courses may be replaced by upper level courses upon approval of the advisor. One of the required courses may be substituted by a similar course taken outside the program. A written petition must be submitted to Dr. Liu or Dr. Wang for such substitution, and it must include well-reasoned justifications, including a thorough comparison of content coverage between the two courses, with the syllabi attached. The petition will be considered on a case-by-case basis.

**Advisors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Office Location</th>
<th>Phone</th>
<th>Email</th>
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<tbody>
<tr>
<td>Lin Liu</td>
<td>Geography</td>
<td>Braunstein Hall 400E</td>
<td>556-3429</td>
<td><a href="mailto:lin.liu@uc.edu">lin.liu@uc.edu</a></td>
</tr>
<tr>
<td>Xinhao Wang</td>
<td>Planning</td>
<td>DAAP Building 6217</td>
<td>556-0479</td>
<td><a href="mailto:xinhao.wang@uc.edu">xinhao.wang@uc.edu</a></td>
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**Costs**

The cost of courses in this program is in accordance with the university’s general tuition rate. Please visit [http://www.uc.edu](http://www.uc.edu) for the current tuition rate.
GIS Certificate Program Application Form
A Program of the Joint Center for GIS and Spatial Analysis (GISSA)

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<th>STUDENT NAME</th>
<th>UC-ID (M#)</th>
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Department/College

Program

Mailing address:

Telephone: Email:

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<tr>
<th>Course name</th>
<th>Grade</th>
<th>Quarter/Year</th>
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<tr>
<td><strong>(1) Remote Sensing &amp; Cartography Group (Semester)</strong></td>
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<td>Geography 6072 Principles and Applications of GPS</td>
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<td>Geography 6074 Computer Analytical Cartography</td>
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<td>Geography 6076 Principles of Remote Sensing</td>
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<td><strong>(2) Introduction to GIS group (Semester)</strong></td>
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<td>Geography 6071: Introduction to Geographic Information Sciences</td>
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<td>Planning 6071 Introduction to Geographic Information Systems</td>
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<td><strong>(3) GIS Applications Group (Semester)</strong></td>
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<td>Geography 7091 Seminar: GIS</td>
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Transcripts attached.
Submit the application form and transcript to:

Sarah Strouse  
401 Braunstein Hall  
PO BOX 210131  
Cincinnati, OH 45221-0131  
stroussa@UCMAIL.UC.EDU  
Phone: 513-556-3421  
Fax: 513-556-3370  
or  
Rosa Smith  
6210 DAAP Building  
PO Box 210016  
Cincinnati, OH 45221-0016  
Rosa.smith@uc.edu  
Phone: 513-556-4943  
Fax: 513-556-1274

Official use only

Application received on:  
Transcripts received on:  
Approved by: Date:  
Certificate issued on:

September 6, 2013