

# ADVANCED GIS, CAPSTONE CERTIFICATE

The Department of Geography offers an online Advanced Geographic Information Systems (GIS) Capstone Certificate.

The Advanced GIS Capstone Certificate is intended to produce individuals, both inside and outside of Wisconsin, skilled in the conceptual and methodological underpinnings of advanced GIS technology and able to make informed use of current GIS applications in real-world problem solving. Advanced GIS capstone certificate students will acquire advanced GIS and related technological skills needed in a wide variety of disciplines, while gaining experience with common commercial and open-source GIS software.

The course package will provide broad competency in mapping science and spatial analysis; consisting of three elective courses, including advanced courses in cartographic design, geovisualization, geocomputing, and spatial and web programming.

## HOW TO GET IN

### ADMISSION REQUIREMENTS

- A bachelor's degree
- Minimum undergraduate grade point average (GPA) of 3.00 on a 4.00 scale
- Applicants must have a minimum background in GIS; including, **two(2)** undergraduate level courses in introductory GIS and/or cartography. Equivalent work experience will also be considered.
- Submission of unofficial student transcripts, a one-page statement of interest, and two letters of recommendation
- Students cannot enroll in other undergraduate or graduate programs nor take courses outside the prescribed curriculum.
- Students are not permitted to accept graduate assistantships or other appointments that would result in a tuition waiver and .
- Non-native English speakers must also submit a Test of English as a Foreign Language (TOEFL) score that meets Graduate School minimum requirements (<https://grad.wisc.edu/admissions/requirements/>)

Note: Graduate Record Examination (GRE) scores are **NOT** required.

### APPLICATION STEPS

1. Submit an online application for admission (<http://continuingstudies.wisc.edu/advising/apply.htm>) as a University Special student, selecting UNCS Capstone Certificate and the program: GIS Fundamentals. This application is received and processed by ACSSS with final decision held for approval from GIS Professional Programs Admissions Committee.
2. Fill out the online supplemental application ([https://uwmadison.co1.qualtrics.com/jfe/form/SV\\_bD9etvxCWHYnrNP/](https://uwmadison.co1.qualtrics.com/jfe/form/SV_bD9etvxCWHYnrNP/)). This includes submission of contact information for two references, a letter of interest (one-page essay), and your unofficial transcripts. The GIS program will contact referees for their recommendation letters, but applicants should ensure they will write you a letter prior

to submitting their names. Referees will be asked to submit letters of recommendation electronically. Please note that the submission of official transcripts to the GIS Professional Programs (550 North Park St Madison, WI 53706) are required if admitted to the program.

3. International students from non-English-speaking countries must also submit TOEFL scores that meet Graduate School minimum requirements (<https://grad.wisc.edu/admissions/requirements/>).
4. This program accepts applications for the FALL, SPRING, and SUMMER semesters. Please visit the program website for more information on deadlines. (<https://geography.wisc.edu/gis/advanced-gis-capstone-certificate-application-information/>)

Adult Career and Special Student Services (ACSSS) is the admitting office for all University Special students. However, the department offering the capstone certificate program makes the final admission decision upon review of all applicant materials. Consult the GIS Program website (<https://geography.wisc.edu/gis/>) for further detail and assistance.

### ENROLLMENT

When admitted to the program applicants **MUST** send their official transcripts to the GIS Professional Programs: 550 North Park Street, Madison, WI 53706. Formal recommendation for admission will only occur *after* official transcripts have been received from the appropriate institution(s). Admitted students then receive a formal letter of admission to UW-Madison from Adult Career and Special Student Services along with general enrollment information.

The Department of Geography-GIS Capstone Certificate Program will send an email to admitted students with specific information pertaining to enrollment in courses and completion of the capstone program.

Additional detail is provided on the ACSSS enrollment page (<http://continuingstudies.wisc.edu/advising/enroll-special.htm>).

## REQUIREMENTS

### STUDENTS IN THIS PROGRAM ARE REQUIRED TO TAKE THREE(3) OF THE FOLLOWING COURSES:

Code	Title	Credits
GEOG 378	Introduction to Geocomputing	4
GEOG 572	Graphic Design in Cartography	4
GEOG 574	Geospatial Database Design and Development	4
GEOG 575	Interactive Cartography & Geovisualization	4
GEOG 576	Geospatial Web and Mobile Programming	4
GEOG 579	GIS and Spatial Analysis	4
<b>Total Credits</b>		<b>12</b>

Students are required to maintain a 3.0 GPA while enrolled in the program. Students who do not meet this requirements risk academic probation or dismissal from the program.

## MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.

## LEARNING OUTCOMES

1. Become grounded in the conceptual and methodological underpinnings of advanced GIS technology in order to make informed use of complex GIS applications in real world problem solving.
2. Acquire advanced technological skills needed in applying GIS towards a wide variety of disciplines while gaining experience with common commercial and open-source GIS software.