CARTOGRAPHY
AND GEOGRAPHIC
INFORMATION SYSTEMS: GIS
DEVELOPMENT, M.S.

This is a named option within the Cartography/GIS M.S (http://
guide.wisc.edu/graduate/geography/cartography-geographic-
information-systems-ms).

This online master's program provides a broad foundation in the theory
and application of mapping and geographic information sciences.
Graduates of this program will be well prepared for positions as GIS
analysts in government agencies, planning organizations, environmental
agencies, nongovernmental organizations, and private industry.
Completion of this program requires 32 credits and does not include a
thesis. Learn more. (https://geography.wisc.edu/gis/onlinemasters)

ADMISSIONS

The Graduate School sets minimum requirements for admissions
(https://grad.wisc.edu/admissions/requirements). Academic program
admission requirements are often more rigorous than those set by
the Graduate School. Please check the program’s website (https://
geography.wisc.edu/gis/online-masters-program-application-
information) for details on how to apply.

This program accepts applications for the FALL, SPRING, and SUMMER
semesters. Please visit the program website for more information on
deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree
programs and the Graduate School. Applicants must meet requirements
of both the program(s) and the Graduate School. Once you have
researched the graduate program(s) you are interested in, apply online
(https://grad.wisc.edu/admissions).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include
assistantships, fellowships, traineeships, and financial aid. Further
funding information (https://grad.wisc.edu/funding) is available from
the Graduate School. Be sure to check with your program for individual
policies and processes related to funding.

PROGRAM RESOURCES

Students in the GIS Development and Accelerated/Non-Thesis named
options are not permitted to accept graduate assistantships or other
appointments that would result in a tuition waiver and cannot enroll
in other graduate programs nor take courses outside the prescribed
curriculum.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL
REQUIREMENTS

Review the Graduate School minimum academic progress
and degree requirements (http://guide.wisc.edu/graduate/
#policiesandrequirementstext), in addition to the program requirements
listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format
to accommodate working schedules. Enjoy the advantages of on-campus courses
and personal connections, while keeping your day job. For more information about the
meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs
can be completed almost entirely online with all online programs offering at least
50 percent or more of the program work online. Some online programs have an on-
campus component that is often designed to accommodate working schedules.
Take advantage of the convenience of online learning while participating in a rich,
interactive learning environment. For more information about the online nature of a
specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online
formats. Most hybrid programs are completed on-campus with a partial or completely
online semester. For more information about the hybrid schedule of a specific program,
contact the program.

Accelerated: These on-campus programs are offered in an accelerated format
that allows you to complete your program in a condensed time-frame. Enjoy the
advantages of on-campus courses with minimal disruption to your career. For more
information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement
Minimum Residence
Credit Requirement

Minimum Half of degree coursework must be completed in
Graduate Coursework graduate-level coursework; courses with the Graduate
Coursework Level Coursework attribute are identified and searchable
Requirement in the university’s Course Guide.
Overall 3.00 GPA required.
Graduate GPA Requirement
The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester. Assessments and Examinations

No formal examination is required.

Language

No language requirement.

REQUESRED COURSES

Students must complete the coursework for breadth requirements at an accredited institution of higher learning prior to entering the program. The Program Director, in consultation with the Program Admissions Committee, may choose to waive these requirements if an applicant provides evidence of sufficient knowledge in these areas gained through work experience. Students must have completed the equivalent of two (2) undergraduate-level courses in GIS and/or Cartography and Visualization, and one (1) course in Quantitative Methods.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 378</td>
<td>Introduction to Geocomputing</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 572</td>
<td>Graphic Design in Cartography</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 574</td>
<td>Geospatial Database Design and Development</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 575</td>
<td>Interactive Cartography &amp; Geovisualization</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 576</td>
<td>Geospatial Web and Mobile Programming</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 579</td>
<td>GIS and Spatial Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 777</td>
<td>Capstone in GIS Development</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 778</td>
<td>Practicum in GIS Development</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>32</strong></td>
</tr>
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</table>

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students may count 15 credits taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to the option may not be used to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, please see the department's Criteria for Satisfactory Progress (http://www.geography.wisc.edu/graduate/Criteria%20for %20Satisfactory%20Progress.pdf).

ADVISOR / COMMITTEE

All students are required to conduct a progress report each semester with the program director or manager. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (https://grad.wisc.edu/pd) to build skills, thrive academically, and launch your career.

PEOPLE

Associated Faculty: Lisa Naughton (Department Chair), A-Xing Zhu, Robert Roth, Qunying Huang, and Song Gao.
Staff: Ian Muehlenhaus (GIS Professional Programs Director), Brittney Markle (GIS Professional Programs Manager), and Joel Gruely (GIS Professional Programs Administrative Assistant)