

SCHOOL OF GRADUATE STUDIES

352 Lafayette Street, Salem, MA 01970-5353

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MASTER OF SCIENCE IN GEO-INFORMATION SCIENCE

Objectives

The Master of Science in Geo-Information Science is 33-35 credit hour multidisciplinary program of advanced study in geo-spatial technologies with both thesis and non-thesis options. The purpose of the program is to

- become proficient in the tenets and principles used in the scientific application of geographic information systems
- learn spatial analytical techniques common to geo-information systems
- become familiar with the use of GIS software including its ability to retrieve, capture, store, analyze and display geographic and non-geographic data
- be introduced to all aspects involved in the implementation of successful GIS operations including conducting needs assessments, determining hardware and software requirements, and conducting cost/benefit analyses
- develop an understanding of the many applications of GIS today: locally, nationally, and internationally

Admissions

Visit salemstate.edu/graduate for admissions requirements, deadlines and prerequisites (if any).

It may be possible to take a limited number of courses prior to formal admission to the program. If you are interested in this option, please contact the graduate program coordinator. If you are accepted into the program, you must meet with the graduate program coordinator to develop a tentative plan of study and discuss any transfer credits. Graduate program coordinator contact information may be found at salemstate.edu/graduate/programs.

Program Requirements

All candidates must complete

- 33-35 credit hours of graduate course work (thesis or non-thesis capstone option)

Course Requirements

Required Courses

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| • GGR 903 | Geographic Information Systems | 3 |
| • GGR 909 | Interpretation/Analysis Of Remote Sensing Imagery | 3 |
| • GGR 904 | Geographic Information Systems for Research and Analysis | 3 |
| • GGR 945 | Geographic Information System Project Implementation | 4 |
| • GGR 942 | Advanced Geographic Quantitative Methods | 4 |
| • GGR 952 | Spatial Database Analysis and Development | 3 |

- GLS 750 Advanced Survey 3
- GGR 876 GGR 876* Directed Study in Geography (master's thesis) OR GLS 876* 4
- OR GLS 876 Directed Study (Geology master's thesis)
- For non-thesis option, GLS 876 or GGR 876 may be replaced with GGR 4
- 965 Seminar in Geographic Information Systems
- GGR 952 Spatial Database Analysis and Development 3

Electives (choose two)

- GLS 780 Applied Environmental Geophysics 4
- GGR 907 Air Photo Interpretation 3
- GGR 910 Digital Analysis of Remotely Sensed Imagery 3
- GGR 911 Photogrammetry 4
- GGR 946 Computer Assisted Cartographic Modeling 3
- GGR 953 Seminar in GIS Application I 4
- GGR 955 GIS Practicum 4
- MAT 704 Linear Algebra 3
- MAT 725 Fractal Geometry 3
- MAT 747 Applied Statistical Inference 3
- Other electives, if approved by the program coordinator

Total Credits 33-35

Notes

The School of Graduate Studies reserves the right to make changes in program and course requirements, policies and regulations as circumstances dictate. There is no guarantee that any listed course will be offered in any given semester. Therefore, you should meet regularly with your program coordinator to discuss your progress and revise your plan of study as needed.