

MINOR IN GEOGRAPHIC INFORMATION SCIENCE

Name: \_\_\_\_\_ Student Number: \_\_\_\_\_  
(Last, First, M.I.)

E-mail Address: \_\_\_\_\_

Expected Graduation Date: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
(Semester, Year)

Local Address: \_\_\_\_\_

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Required Coursework--6 Credit Hours

- \_\_\_\_\_ 2840 Introduction to Mapping Science (3)
- \_\_\_\_\_ 4840 Geographic Information Systems I (3)

Elective Courses--9 Credit Hours

- \_\_\_\_\_ 3840 Computer-Assisted Cartography (3)
- \_\_\_\_\_ 4710 Spatial Analysis in Geography (3)
- \_\_\_\_\_ 4810 Landscape Ecology & GIS Analysis I (3)
- \_\_\_\_\_ 4815 Landscape Ecology & GIS Analysis II (3)
- \_\_\_\_\_ 4830 Remote Sensing (3)
- \_\_\_\_\_ \*4860 Digital Image Processing for Spatial Analysis (3)
- \_\_\_\_\_ \*4940 Geographic Information Systems II (3)

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A total of fifteen (15) hours of coursework is required for the Minor. Students may earn both the Minor in Geography and Minor in Geographic Information Science provided that the coursework is unique for each Minor.

\* Geography 4860 and 4940 can be taken as part of the GISc minor with the consent of the Advisor.

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Student's Graduation Plan is in:

Approved: \_\_\_\_\_  
(Geography Advisor) (Name of Major)

Date \_\_\_\_\_  
(Name of Division, i.e., Arts & Science)

**If Division is other than Arts & Science, a copy of this form may be required by Major Department. One copy of this form must be kept in Department of Geography files.**

## **SUMMARY**

Geographic information science (GISc) involves the theory behind and methodology of capturing, storing, analyzing and communicating digital information about the Earth and phenomena distributed on or near its surface. From its initial home in the discipline of geography, GISc has diffused to multiple fields concerned with geographic phenomena. The minor in GISc addresses the emerging demands for GISc education by providing strongly integrated coursework that will equip a student majoring in a complementary field with the vital spatial underpinnings of GIS technology. The structure of this minor goes beyond 'software knowledge' and introduces students to fundamental theories related to spatial analysis and provides training in advanced analysis techniques. The minor program in geographic information science meets the expanding demand for students with GIS skills in majors such as physical anthropology, business, geology, and ecology.

## **OVERVIEW**

Geographic information science (GISc) involves the theory and methodology of capturing, storing analyzing and communicating digital spatial information, including the distributions of both physical and socioeconomic phenomena. During the last decade, GIS software has become very powerful, encouraging the wide application of GIS tools in both basic research and applied problem solving, and throughout the physical, social, and health sciences. GIS professionals work in a variety of settings, including the private sector (e.g., logistics, market analysis, facilities management), public sector at the local, state and national levels and in GIS software firms. The University of Missouri's Geography program has been successful in placing undergraduate and graduate students in these employment arenas. The local and national job markets for GISc professionals are very strong and are not expected to weaken any time in the foreseeable future.

The skills required to solve the increasingly complex problems demanded by basic and applied science and planning are addressed in the set of courses required for the minor. This selection of courses provide students with qualifications to make them productive geographic information scientists in numerous fields.

A student successfully completing the minor will have indicated on their transcript "Minor in Geographic Information Science."