

USC SCHOOL	Dornsife
ACADEMIC DEPARTMENT	Spatial Sciences Institute
GRADUATE PROGRAM	Geographic Information Science and Technology
POST CODE	1019
TERM EFFECTIVE DATE	Spring 2021

PROGRAM DESCRIPTION

A brief description of the graduate program.

The MS in Geographic Information Science and Technology provides a foundation in geospatial sciences with state-of-the-art geographic information technologies (geographic information systems, global positioning systems and remote sensing, among others). The individual courses provide multiple curricular pathways tailored to the increasingly diverse backgrounds, occupations, and applications that rely on geospatial information, analysis, modeling, and visualization.

COMMON BACHELOR DEGREE PROGRAM PATHWAYS

A list of common bachelor's degrees that undergraduate students pursue in advance of pursuing a progressive degree option with this graduate program. Some programs are restricted to certain majors while others are open to all students.

Geodesign	Global Geodesign
Human Security and Geospatial Intelligence	International Relations
Environmental Studies	Architecture
Urban Planning	Real Estate Development

PREPARATORY UNDERGRADUATE COURSES

A list of courses at the undergraduate level that prepare students for the graduate program. Required coursework is listed first, followed by recommended courses. If not applicable, this section will be blank.

Dept. Prefix - Course #	Course Title	Required or Recommended	Units
SSCI 301L	Maps and Spatial Reasoning	Recommended	4
SSCI 382L	Geographic Information Science: Spatial Analytics	Recommended	4

UNDERGRADUATE COURSES USED TO REDUCE GRADUATE LEVEL UNITS

A list of undergraduate level courses that may be used to reduce the number of graduate level units required for the graduate program. If there are none, that is specified instead.

Dept. Prefix - Course #	Course Title	Units
SSCI 301L	Maps and Spatial Reasoning	4
SSCI 382L	Geographic Information Science: Spatial Analytics	4

CORE GRADUATE PROGRAM REQUIREMENTS (# units required)

A list of all required graduate courses for the graduate program. None of these courses may be used toward satisfying undergraduate degree requirements.

If special exceptions for any of these courses are made by the academic department, the course # is marked with an asterisk () and the exception is explained in the "Department Notes" section at the end of this course plan template.*

Dept. Prefix - Course #	Course Title	Units
SSCI 581*	Concepts for Spatial Thinking	4
SSCI 587	Spatial Data Acquisition	4
SSCI 594a	Master's Thesis	2
SSCI 594b	Master's Thesis	2
SSCI 582**	Spatial Databases	4
SSCI 585**	Geospatial Technology Project Management	4
SSCI 588**	Remote Sensing for GIS	4
SSCI 586**	GIS Programming and Customization	4
SSCI 591**	Web and Mobile GIS	4
SSCI 574**	Spatial Econometrics	4
SSCI 583**	Spatial Analysis and Modeling	4
SSCI 589**	Cartography and Visualization	4

PRE-APPROVED ELECTIVE COURSEWORK

Elective coursework is approved at the discretion of the academic department. Note the following details about the total number and units required of elective coursework.

1	TOTAL ELECTIVE COURSES REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE
4	TOTAL ELECTIVE UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE

TOTAL UNIT COUNTS AND REQUIRED GRADUATE UNITS

28	TOTAL UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE
4	TOTAL GRADUATE UNITS THAT MAY BE WAIVED (IF ANY)
24	MINIMUM NUMBER OF GRADUATE UNITS THAT MUST BE AT THE 500 LEVEL OR ABOVE

NOTES FROM THE DEPARTMENT

This section highlights any unique considerations, exceptions, or requirements for the graduate program. If a program has specific restrictions (courses, majors, etc.), they are detailed below.

*Students who complete SSCI 301L and SSCI 382L as undergraduates may have SSCI 581: Concepts for Spatial Thinking waived, thereby reducing the total number of M.S. units from 28 to 24.

**Students choose a track upon entering the program that determines their course requirements. In addition to SSCI 581 and SSCI 587, each track includes three required courses (12 units) plus one elective (4 units). The track options are:

Geospatial Information Management

SSCI 582: Spatial Databases, SSCI 585: Geospatial Technology Project Management, SSCI 588: Remote Sensing for GIS, Choice of SSCI 575 Spatial Data Science, SSCI 576 Remote Sensing Applications and Emerging Technologies, or SSCI 591 Web and Mobile GIS

Geospatial Programming and Software Development

SSCI 582: Spatial Databases, SSCI 586 GIS Programming and Customization, SSCI 591 Web and Mobile GIS, Choice of SSCI 576 Remote Sensing Applications and Emerging Technologies, SSCI 588 Remote Sensing for GIS, or SSCI 589 Cartography and Visualization

Geospatial Analytics

SSCI 574 Spatial Econometrics, SSCI 583 Spatial Analysis and Modeling, SSCI 589 Cartography and Visualization, Choice of SSCI 575 Spatial Data Science, SSCI 586 GIS Programming and Customization, or SSCI 588 Remote Sensing for GIS

Steven Finkel

4.8.2021

Name of Authorizing Master's Program Dean**Date Approved**

College Dean of Graduate and Professional Education

Authorizing Dean's Title