THE OHIO STATE UNIVERSITY

Updated GIS Major

Department of Geography
Spring 2015

Highlights of the revised GIS Major

1. CSE prerequisites streamlined
2. New course numbers and sequencing
3. Updated topics to reflect changing workforce needs

CSE prerequisites streamlined and customized

- CSE 1222 or CSE 1223 no longer required

- Customized CSE course
    - CSE 2194.01 Introduction to Databases using MS Access (1.5 hours)
    - Offered Autumn semesters
    - Pre-requisite for new GEOG 5212 Geospatial Databases for GIS (required for undergraduates only)

GIS major requirements (24 hours)

GEOG 5100	Spatial Data Analysis
GEOG 5200	Cartography and Map Design
GEOG 5201	GeoVisualization
GEOG 5210	Fundamentals of GIS
GEOG 5212	Geospatial Databases for GIS
GEOG 5222	GIS Algorithms and Programming
GEOG 5223	Design and Implementation of GIS
GEOG 5225	Geographic Applications of Remote Sensing

GIS minor requirements (12 hours)

GEOG 5100	Spatial Data Analysis
GEOG 5200	Cartography and Map Design
GEOG 5210	Fundamentals of GIS

And one of the following two courses:

GEOG 5212	Spatial Databases for GIS
GEOG 5225	Geographic Applications of Remote Sensing

Electives: Choose from the following (three for majors; two for minors)

GEOG 5226	Spatial Simulation and Modeling
GEOG 5229	Emerging Topics in GIS
GEOG 5****	One 5000-level topical course in Geography
CSE 2122	Data Structures using C++ (prereq: CSE 1222)
CSE 2123	Data Structures using Java (pre-req: CSE 1223)
CSE 3241	Introduction to Database Systems (pre-reqs: (CSE 2133 or CSE 2231 or CSE 2233) and (CSE 2321 or Math 2366))
CSE 5242	Advanced Database Management Systems (prereq: CSE 3241)

Possible two year sequence

	Fall	Spring
Year 1	GEOG 5200 GEOG 5210 CSE 2194.01	GEOG 5201 GEOG 5212
Year 2	GEOG 5100 GEOG 5226 GEOG 5229	GEOG 5225

Prerequisites

Course	Pre-requisite
GEOG 5100	STAT 2450 (undergraduates only)
GEOG 5201	GEOG 5200
GEOG 5212	CSE 2194.01(undergraduates only) GEOG 5210
GEOG 5222	GEOG 5212
GEOG 5223	GEOG 5222
GEOG 5229	GEOG 5210

Updated course numbers and topics

New course/topic		Old course/topic	
5100	Introduction to Spatial Data Analysis	5100	Quantitative Geographical Methods
5200	Cartography and Map Design	5200	Elements of Cartography
5201	GeoVisualization	5201	Computer Cartography and Geographic Visualization
5210	Fundamentals of GIS	5220	(same)
5212	Spatial Databases for GIS		New course
5222	GIS Algorithms and Programming	5222	GIS Applications in Social Science and Business
5223	Design and Implementation of GIS	5223	(same)
5225	Geographic Applications of Remote Sensing	5270	(same)
5226	Spatial Simulation and Modeling	5221	(same)
5229	Emerging Topics in GIS	5224	(same)

Need more information?

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