

Geographic Information Systems (GIS) Minor @ Westfield State University

GIS means making intelligent and meaningful maps – maps that can answer the following three geographic questions: What? Where? Why? More formally, a GIS integrates geospatial data, hardware, software, and geographic concepts to analyze and visualize geographic information. The application of GIS technology is widening beyond its "traditional" scope of geography, planning, and environmental sciences and extends into, for example, public health, social services, homeland security, law enforcement, business and marketing, communications and media, history, and political science.

GIS is a key emerging and evolving industry and our GIS Minor gives you the skills and hands-on experience necessary to use GIS in your future career. For more information about the GIS Minor, GIS advising, and to sign-up for the GIS Minor, please contact Dr. Tim LeDoux, GIS Coordinator, at tledoux@westfield.ma.edu.

Requirements

Part 1) Required GIS Courses (12 hours)

GARP 0243 Introduction to Remote Sensing
GARP 0244 Introduction to Geographic Information Systems
GARP 0344 Advanced Geographic Information Systems

One of the following:

GARP 0246 Quantitative Methods for Social and Physical Science or
BIOL 0278 Biostatistics or
CRJU 0313 Quantitative Methods in Criminal Justice* or
ECON/FINC 0305 Introduction to Econometric Methods* or
ENVS 0330 Data Analysis* or
MGMT 0250 Quantitative Approaches to Business Decisions*

Part 2) Plus two of the following (6 hours)

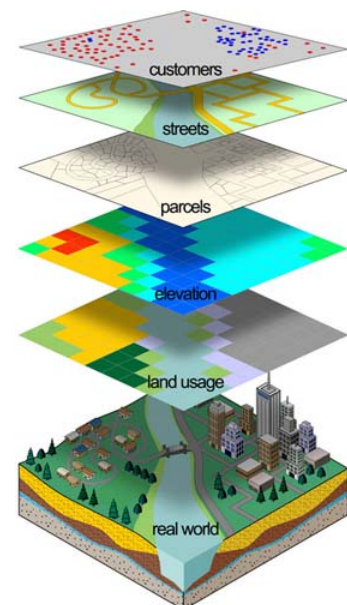
BIOL 0204 GIS Applications for Natural Sciences*
CAIS 0117 Introduction to Computer Programming (BASIC)
CAIS 0212 Visual Programming Concepts
CRJU 0328 Computer Application in Crime Analysis
CRJU 0359 GIS Applications in Crime Analysis*
GARP 0241 Cartographic & Data Visualization
GARP 0317 Special Topics in GIS
GARP 0343 Advanced Remote Sensing*
GARP 0347 Cloud GIS*
GARP 0350 Internship in GIS
GARP 0365 Geoprocessing*
GARP 0399 Independent Studies in GIS

* Some of the courses listed above carry prerequisites or require instructor consent.

** Other courses, not listed above, may be substituted with approval of the GIS Coordinator.

*** We encourage GIS independent studies or GIS Internships to gain practical experience.

For more information about our overall GIS Program and related opportunities at Westfield State University visit our website at www.westfield.ma.edu/gis.



How GIS Works

A GIS stores information about the world as a collection of thematic layers that can be linked together by geography. This simple but extremely powerful and versatile concept has proven to be invaluable for solving many problems from tracking delivery vehicles, to recording details of planning applications, to modeling global atmospheric circulation.

