

MS in GeoInformatics

PROGRAM LEARNING OUTCOMES

CORE AND REQUIRED COURSES

CREDIT HOURS

Identify the theoretical and methodological foundations of GeoInformatics and GIScience including data models and data structures, spatial ontologies and linked data, simulation and spatial-temporal modeling, remote sensing and spatial data capture, as well as

Apply a wide range of research methods and scientific computing skills for the analysis of spatial information that emphasize geospatial computation, modeling, and big data;

Develop advanced spatial analytical software tools including web-based tools and implement these software tools in a range of application areas;

Explain how governments and private corporations collect geospatial information for various purposes (e.g., population censuses, analyses of consumer behavior, and security and surveillance) and understand the ethical issues involved; and

Explain the impacts of geospatial technologies on economic, social, institutional, and cultural practices locally and in the context of globalization, grass-roots movements, and democracy.

Note: The term "meets" here is used to indicate that the course maps to this particular learning outcome. The assessment process will determine whether the course "approaches, reinforces or allows students to master" a particular outcome.