

# EXPLORE GIS & CARTOGRAPHY

## WHAT IS GIS & CARTOGRAPHY?

If you like geography, data analytics, and the development of new geographic information systems, then consider the career path in geographic information systems (GIS)! This path uses computer graphics, artificial intelligence, and high-speed communications in the mapping and selective retrieval of geographic data. On the other hand, cartographers prepare maps and drawings from aerial photographs and survey data. Most cartographers work with GIS to design algorithms, data structures, and user interfaces for mapping systems.

## FREQUENT JOB TITLES

- GIS Analyst
- GIS Technician
- Cartographer

## IDEAL QUALIFICATIONS

- Experience with ArcPad and ArcGIS
- Know current and emerging technology
- Willingness to travel and likely be away from home for an extended period
- Prefer a bachelor's degree typically with a major relating to GIS or geography

## KEY SKILLS

- Verbal and written communication
- Strong attention to detail
- Quantitative and qualitative analysis
- ArcPad and ArcGIS software skills
- Programming languages

## COMMON EMPLOYERS

- Esri
- Google
- U.S. Geological Survey
- Continental Mapping

## RELATED STUDENT ORGS

- BadgerMaps
- DotDATA
- Geography Club

## SUGGESTED COURSES

- Geography 370: Intro to Cartography
- Geography 377: An Intro to Geographic Information Systems

## SUGGESTED ACTIVITIES

- UW-Madison Cartography Lab with Tanya Buckingham
- Cartography Lab Design Challenge