

# GEOGRAPHIC INFORMATION SYSTEMS, MINOR

## College of Agricultural & Environmental Sciences

The Department of Biological & Agricultural Engineering offers a minor in Geographic Information Systems with an emphasis on spatial analysis. This minor is ideal for students interested in information processing of spatial data related to remote sensing, land information systems, marine cartography, thematic mapping, surface modeling, environmental modeling resources management, public utility planning, emergency response, geomarketing, geotechnics, precision agriculture, archaeology, military exercises, and computer-aided design. Prerequisites include MAT 017A-MAT 017B or MAT 021A-MAT 021D and PHY 007A-PHY 007C or PHY 009A-PHY 009B. Some electives may have additional prerequisites.

All core courses (ABT 150/LDA 150, ESM 186, and ABT 181N or ABT 182) must be taken for a letter grade. Up to one elective course may be taken P/NP.

## Minor Advisors

I. Kisekka, A. Moghimi (Biological & Agricultural Engineering Department)

Code	Title	Units
<b>Required Courses:</b>		<b>13</b>
ABT/LDA 150	Introduction to Geographic Information Systems	
ESM 186	Environmental Remote Sensing	
ABT/HYD 182 or ABT 181N	Environmental Analysis Using GIS Concepts & Methods in Geographic Information Systems	
<b>Elective Courses; choose 5 units:</b>		<b>5</b>
ABT 181N	Concepts & Methods in Geographic Information Systems (If not chosen above.)	
ABT 182	Environmental Analysis Using GIS (If not chosen above.)	
ESM 108	Environmental Monitoring	
ESM 185	Aerial Photo Interpretation & Remote Sensing	
ESP 168A	Methods of Environmental Policy Analysis	
ESP 168B	Methods of Environmental Policy Evaluation	
ESP 171	Urban & Regional Planning	
ESP 179	Environmental Impact Assessment	
PLS 120	Applied Statistics in Agricultural Sciences	
STA 100	Applied Statistics for Biological Sciences	
<b>Total Units</b>		<b>18</b>