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# Implementing Geographic Information Systems in the College of Business

## Overview: Project Objectives

- Week long module
- Management Information Systems 301 Class
- Teach students about geographic information systems
- Implement GIS in class
- 2 hours worth of lesson plans
- 1 hour in-class activity
- Outside of class homework assignment
- Students will understand benefits of GIS
- Know how to use GIS

## Procedure and Methods

Lesson Plans	In-Class Activity	Homework Assignment
<ul style="list-style-type: none"> <li>• Answer what, why, how, and who uses GIS</li> <li>• Understand spatial data creation and management</li> <li>• Use information learned to help with activity and homework</li> </ul>	<ul style="list-style-type: none"> <li>• Give students a mini-version of what they can expect to do during the homework assignment</li> <li>• Give students exposure to a GIS tool, ArcGIS Online</li> <li>• Allow time for students to ask questions</li> </ul>	<ul style="list-style-type: none"> <li>• Students will learn spatial analytics from a business perspective</li> <li>• Able to take data and ask questions</li> <li>• Solve business problems and write a memo</li> <li>• Able to use GIS tools</li> </ul>

## Reflection

### Looking Back

- Meet with professors earlier
- Deliverable due each week
- Test assignment on students

### Takeaways

- Learn about GIS and how it is used
- How to plan a week long module
- Became experienced with ArcGIS

## Going Forward

Lesson Plans	In-Class Activity	Homework Assignment
<ul style="list-style-type: none"> <li>• Update lessons with current information</li> <li>• Address what students want to learn</li> </ul>	<ul style="list-style-type: none"> <li>• Students work together</li> <li>• Make questions easier or more challenging</li> <li>• More or less sections</li> </ul>	<ul style="list-style-type: none"> <li>• More or less step-by-step instructions</li> <li>• Revise main question</li> <li>• Students gather data</li> </ul>

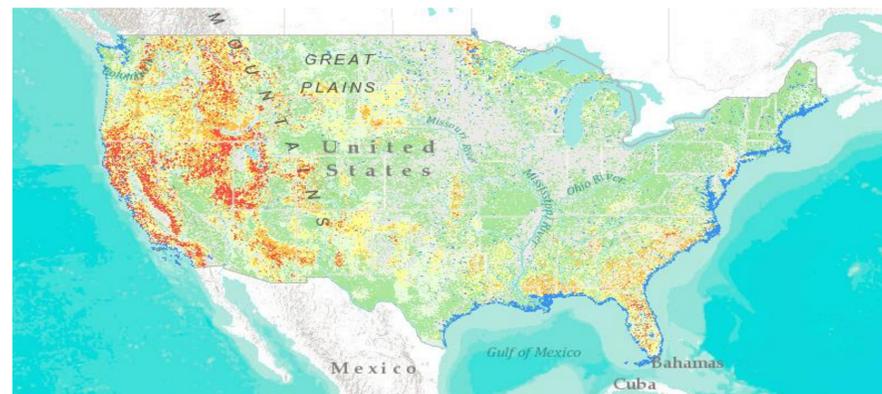
## Final Results: Lesson Plans

These lesson plans describe GIS and how it is designed to capture, store, manipulate, analyze, manage, and present spatial data. It will help make better decisions using geography. The 6 main components to GIS are data, people, procedures, software, and hardware. Most industries use GIS. **For example**, a city planner to find a new location, real estate, meteorologists to study hurricanes, retailer, pipeline, transportation, telecommunications, utilities, police force, Department of Education, accident analysis, dairy industry, among others.

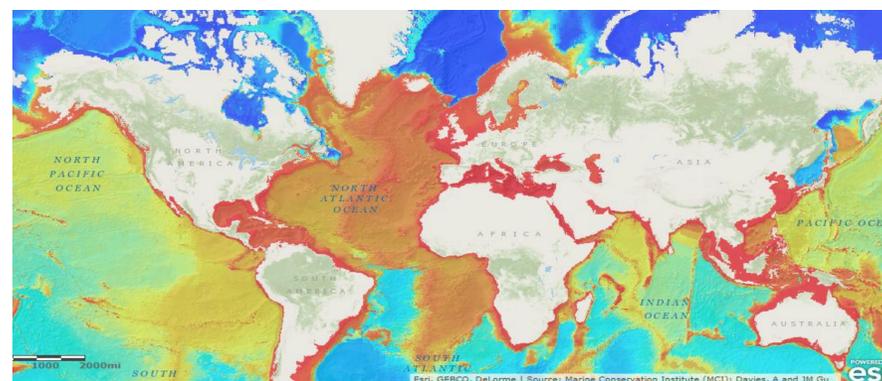
## Final Results: In-Class Activity

The 11 ready-to-use maps include: imagery, base maps, demographics and lifestyle, boundaries and places, landscape, oceans, earth observations, community maps, transportation, urban systems, and historical maps.

### Landscape: USA Fire Potential



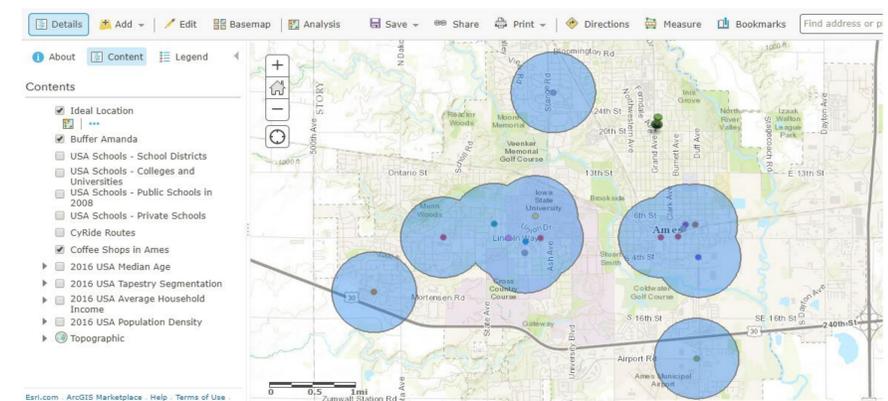
### Oceans: Seafloor Temperature °C



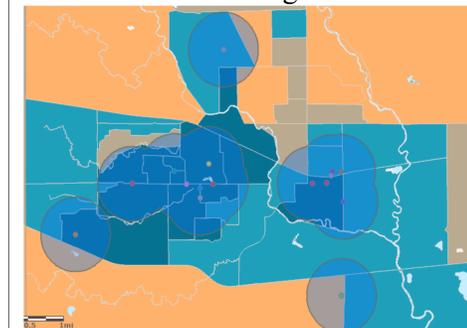
## Final Results: Homework Assignment

- Step-by-step instructions
- Option to add more layers
- 1 page memo
- Support final decision

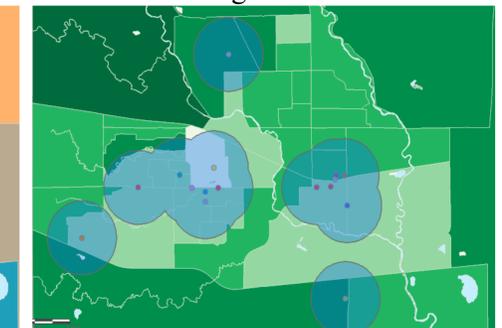
### Coffee Shop Map



### 2016 USA Median Age



### 2016 USA Average Household Income



### Grocery Store Map

