

Internet Mapping - Geography 485L/585L - Spring 2018

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3 Credit Hours / Wed 5-7:30 pm / BANDE 106



Enabling Geographic Visualization and Analysis with Internet Data Resources

Petabytes of geospatial data are collected and managed by international, national, state and local governments; private businesses; and researchers. Many of these data products are made available for remote use over the Internet through a variety of web service interfaces, including interfaces defined by the standards of the Open Geospatial Consortium. A wide variety of desktop and online mapping technologies implement these standards, and allow their users to tap into this vast pool of data as if the data were installed on the user's local computer.

This course will provide a hands-on introduction to Internet mapping technologies. Students will gain experience in the translation of abstract interoperability standards into productive models of interaction between Internet data providers and desktop and web-based mapping applications. This work will focus the basic concept of geospatial interoperability, with an emphasis on how interoperability can enable efficient information sharing and collaboration. This course will encourage students to use their critical thinking skills in the creative use of remote data resources in support of a variety of applied geospatial technology lessons and exercises.

Students in this class will

- Gain an understanding of the international standards that enable efficient exchange of geographic data over the Internet
- Use those standards to access and use remote data hosted by remote data providers in desktop geospatial applications such as QGIS and ArcGIS
- Gain experience with the development of web mapping capabilities using existing web mapping frameworks from Google and OpenLayers
- Develop a basic understanding of technologies for sharing geospatial data over the Internet through standard interfaces

Hybrid Course

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485L 010 : 40227

585L 010 : 40228