School of Information Sciences
University of Tennessee

Syllabus

Course Number 590
Introduction to GeoWeb Technologies (Online)
This course meets Wednesdays from 6:30-9:10, May 29 – August 8

Instructor: Eva Dodsworth
Contact: edodsworth@uwaterloo.ca

Office Hours: Because this is an online course, I will not offer formal office hours. I will however reply to emails ASAP and with advance notice will be available for chat sessions.

Course Description:

This course is an introduction to a number of GeoWeb applications used for information dissemination, resource discovery and access. Through hands-on exercises, lectures and discussions, this online course provides an overview of the many online geographic applications used across disciplines. Some of the topics covered include Google Earth, Map mashups, citizen mapping, ArcGIS Online, and Story Mapping. Students will create projects applicable to libraries.

Prerequisites

None

Course Structure: This course is composed of weekly lectures, tutorials, readings and assignments.


Learning Outcomes

At the conclusion of this course students will:

1. Become skilled users of various GeoWeb tools and applications
2. Be able to assess and comprehend the physical and logical structures that enable web mapping applications
3. Be able to build web mapping applications using Google Maps API
4. Be able to customize the look and feel of applications using Keyhole Markup Language (KML) code
5. Be able to locate and manipulate data accessed from online repositories and geoportals, including current and historical resources
6. Become skilled users in ArcGIS Online technology

Content, Assignments and Evaluation Criteria

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<tr>
<td>May 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Introduction to Web Mapping and Spatial Literacy</td>
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<td>June 6&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Citizen Mapping/Crowd Sourcing</td>
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<td>June 13&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Data Sources; Google Earth Basics</td>
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<td>June 20&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Creating animated visualizations in Google Earth</td>
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<td>June 27&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Screen Overlays, HTML</td>
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<td>July 4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Geocoding; Map Mashups</td>
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<td>July 11&lt;sup&gt;th&lt;/sup&gt;</td>
<td>ArcGIS Online and Story Maps</td>
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<td>July 18&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Google Map Mashups – Google Maps, Google Fusion</td>
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<td>July 25&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Show and Share; Open Question Period</td>
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<td>August 1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Online Map Making tools – Map Builder, file converters</td>
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<td>August 8&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Using GeoWeb applications in Library projects/reference</td>
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- Discussion Question : Citizen Mapping (5%)
- Discussion Question : Data Resources (5%)
- Tutorial : Google Earth (10%)
- Tutorial: ArcGIS Online (10%)
- Google Earth Assignment (25%)
- ArcGIS Online Assignment (35%)
- Participation (10%)

Discussion Questions: Each Discussion question is worth 5%.

Discussion Number One:
Citizen Mapping and Crowd Sourcing are online initiatives that have helped bring many communities together. Explore the world of citizen mapping and share three projects that you have found online that use place and space to organize and share information. Provide links and a description for each.

Discussion Number Two:
Geoportals, Open Data sites, and online repositories provide access to data in a variety of formats. More and more popular is the KML file. Explore online and locate three sources that offer KML downloads. Please provide links and description of the dataset.

Tutorials
Google Earth – There is a Google Earth tutorial that needs to be completed before you can begin working on the Google Earth Assignment. 10%

ArcGIS Online Story Maps - There is ArcGIS tutorial that needs to be completed before you can begin working on the ArcGIS Online Assignment. 10%

Assignments

Online Mapping Assignment : Google Earth and KML Sampler

After you have gone through the Google Earth Tutorial select a geographical area of interest and create your own map using the features available to you in Google Earth. Your map can be of anything you like, but try to include at least three placemarks, an image, a legend (screen overlay), external KML files and html code. If appropriate, you may use voice over as well. Please include a report (approximately 500-750 words) that describes how you created each feature and a description of your map theme. If you have used the KML Sampler product, please include the code. Save as a kml or kmz file, and submit this file, along with your report. 25%

Online Mapping Assignment : Community Outreach using ArcGIS Online Story Maps 35%

Not only maps and data can be located using a GeoWeb interface. Libraries are beginning to offer geographic discovery tools for books too. For example, The university of Maine has create a product using ArcGIS Online’s Story Map technology : http://gis.maine.edu/subjectmap/. This project features a specific section of a library, geocoded based on the geographic setting of the book. Now, users can use a map to locate books on their favorite location in the world. This is not only an excellent pathfinder, but it encourages the use of GIS technology for textual material.

This assignment involves you creating a similar themed project. Using ArcGIS Online’s Story Map interface, create a geographic search tool for a library of your choice. You will need to become familiar with their catalog, and ideally outreach to them to discuss this project so that when you have completed it, they can use the online interactive search tool and link it to their library’s website. You may use a Story Map template of your choice, and customize as necessary. Requirements are:

- Focus on a genre that is reasonably sized. 75-150 items is appropriate
- Include book cover images when available
- Ensure to link to the library’s catalog

Please include a report that details your research, your outreach, your technical work involved, and a summary of how the library will be able to use this project. The report should be approximately 1500 words.
Participation. There is a 10% participation mark based on attendance and your contribution in the virtual classroom. Regular attendance is required. If you cannot make a class, please contact the instructor in advance.

Late Policy:

Late assignments will be accepted up to one week after the due date with a penalty of 5% per day (i.e. 80% becomes 75%) except for unusual mitigating circumstances that should be communicated as soon as possible. Any requests for extension without penalty or for more than one week must be made in writing in advance of the assignment due date.

Grades
At the end of the course, I will convert the points earned into a percentage:

- 93% and above = A
- 85% to 92% = B+
- 79% to 84% = B
- 75% to 78% = C+
- 70% to 74% = C
- 60% to 69% = D
- below 60% = F

Academic Integrity: “The responsibility for learning is an individual matter. Study, preparation and presentation should involve at all times the student’s own work, unless it has been clearly specified that work is to be a team effort. Academic honesty requires that all work presented be the student’s own work, not only on tests, but in themes, papers, homework, and class presentation. …” (Hilltopics 2004-2005 Student Handbook, The University of Tennessee, Knoxville, p. 40). Cheating, plagiarism, providing unauthorized help and other acts of dishonesty violate the rule of academic honesty; the offender will be subject to penalties as set forth in Hilltopics.

Special Needs: If you need course adaptations or accommodations because of a documented disability or if you have an emergency, please contact the Office of Disability Services at 2227 Dunford Hall, Knoxville, or at (865) 974-6087. This will ensure that you receive adequate services to meet your needs. Policy on Inclement Weather & Unforeseen Circumstances: If the university is officially closed, classes will be canceled. I may revise the schedule after the missed session. Any type of arrangements will be discussed with you in advance and announced in class or via e-mail.

CCI Diversity Statement (College of Communication and Information Bylaws, Section II-C): The College of Communication and Information recognizes that a college diverse in its people, curricula, scholarship, research, and creative activities expands opportunities for intellectual inquiry and engagement, helps students develop critical thinking skills, and prepares students for social and civic responsibilities. All members of the College benefit from diversity and the quality of learning, research, scholarship and creative activities is enhanced by a climate of inclusion, understanding and appreciation of differences and the full range of human experience. As a result, the College is committed to diversity and equal opportunity and it recognizes that it must represent the diversity inherent in American society. The College is acutely aware that diversity and fairness are foundations that unite the College’s faculty, staff, students, and the larger communication and information community (see http://www.cci.utk.edu/diversity-statement for CCI’s full Diversity Statement).