GEOG 103 - Fall 2014

Mobile, Wired & Tracked: Our Digital Planet

Professor: Dr. LaDonna Knigge
Office location: 533 Butte Hall
Telephone: (530) 898-5881
Contact information: Blackboard Learn Message Center
Office hours: Tuesday 1:00 – 4:00 PM or by appointment

Class venue: This class is entirely web-based. There are no meetings in a classroom.

NOTE: This syllabus is subject to change.
Effective date of syllabus: August 22, 2014

Course description:

With today’s digital technologies, we are constantly mobile, wired and tracked! Location-based services including personal navigation, GPS, web-based mapping services, and social networks with real-time location information are commonly part of our everyday lives. These technologies are not only ubiquitous in our personal lives, but they are essential to the functioning of government, industry and non-profit sectors. This course will explore the technologies and societal implications of our digital planet with particular attention to geospatial technologies that provide locational services, imagery, mapping and other capabilities. These technologies, ideally suited to analyze geographic patterns of sociological and environmental data, are rapidly evolving, with introductions of new applications every day.

This course provides an overview of evolving geospatial technologies, explores the impact of developments in geospatial technology on the individual and society, and questions how economics, politics, culture and values affect technological development. Through an examination of issues such as privacy, representation, geo-politics, surveillance, equity and social justice, students will obtain a better understanding of the benefits, challenges, ethics and risks of these technologies and will increase their awareness of their personal and societal implications.

Course format:

This Fall Section of GEOG 103 is entirely web-based. There are no meetings in a classroom. Students learn basic concepts associated with Geographic Information Systems (GIS) and the history of its development as well as about geospatial technologies. The course will examine the societal implications of GIS and the rapidly expanding geospatial technology field that includes social media, spatial privacy, participatory GIS, crowdsourcing, voluntary geographic information and a myriad of other emerging technologies that pervade our everyday lives. Through readings of both academic and popular literature, videos, podcasts, internet research, discussions and activities using a variety of readily available technologies, students will investigate what it means to be a citizen of our digital planet.

The course will highlight critical thinking skills, personal and social responsibility and written communication. Students will be expected to use a variety of media and methods of inquiry, research and presentation throughout the semester to understand, internalize and synthesize the course materials. Student learning assessment is accomplished through weekly activities that include discussion, wikis, blogs, quizzes, exercises, assignments, two exams and a research project. Students are required to complete all class assignments on time.

This web-based course requires a great deal of self-discipline, good organizational and study skills, and a desire to learn. Students in online courses need to allocate adequate time to complete the required assignments. It is recommended that you take the Online Readiness Self-Assessment to determine if taking an online course is a good fit for you. This assessment can be found at:
http://teachonline.csustan.edu/selfassessment.php  When you complete the quiz, note your score. If you received a 17 of higher in the right-hand column, you may want to reconsider your decision to take an online course.

**Course Usage of Blackboard Learn (BbL) Learning Management System (LMS)**

Effective communication is essential in an online class. Students are required to read class *Blackboard Learn (BbL) announcements, discussion board postings and messages*. In addition, students are encouraged to view posts by your fellow classmates on the discussion board and wikis. You are expected use the discussion board and to talk to the instructor via the class *BbL Message Center*.

Message Center: Use the class Message Center for personal communications to me or your fellow students. Be polite in all your communications. Please note that the instructor will answer all Discussion Board and Message Center questions during the campus business hours M-F 9-5 and will be available during office hours (Tuesdays 1:00 - 4:00 PM). Please note that I am teaching several other classes so am not available at all times.

Make sure you have the optimal computing resources for using BbL Learning Management System by visiting: Getting Connected http://rce.csuchico.edu/online/current  You are responsible for having adequate computer technology and connectivity to complete class requirements. For help with computing problems, click on the Student Support tab while in BbL or go to: https://learn.csuchico.edu/webapps/portal/frameset.jsp?tab_tab_group_id=202

If you have any questions regarding accessing BbL, contact the student help desk at helpstu@csuchico.edu or (800) 780-4837. http://www.csuchico.edu/step/about-gethelp.shtml  If you are having an issue, your classmates are probably experiencing the same thing, so please post your questions and responses on the Get Help/Give Help forum on BbL discussion board:

Get Help/Give Help: You are encouraged to use the Get Help/Give Help discussion board for questions about the class. These include questions about the class format, class assignments and website access. Do not use the discussion board for communications involving personal information (for example grade and personal problems). Don’t ask any questions on the discussion board that you would not ask in front of the students in a traditional classroom. The discussion board is visible to all members of the class. Do not use the discussion board to chat with fellow students.

This course is designed to fulfill a requirement in Area D1 of General Education.

**General Education:**

Geography 103 is part of General Education Area D1: Individual and Society in the Science, Technology & Values GE Pathway. According to EM1033, Area D are Social Science courses and you are required to take a minimum of 12 semester units dealing with human social, political, and economic institutions and behavior and their historical background.

Students learn from courses in multiple Area D disciplines that human social, political and economic institutions and behavior are inextricably interwoven. Through fulfillment of the Area D requirement, students will develop an understanding of problems and issues from the respective disciplinary perspectives and will examine issues in their contemporary as well as historical settings and in a variety of cultural contexts. Students will explore the principles, methodologies, value systems and ethics employed in social scientific inquiry. Courses that emphasize skills development and professional preparation are excluded from Area D. Coursework taken in fulfillment of this requirement must include a reasonable distribution among the subareas specified, as opposed to restricting the entire number of units required to a single subarea (http://www.csuchico.edu/prs/EMs/2010/EO-1033.html)

While your major course of study will prepare you for your life’s work, General Education is what creates a common intellectual experience for students in all majors, helping you discover that knowledge in one field is connected to knowledge in another, that there is always more to know, and that what you know affects the way you live. Beginning in fall 2012, the new General Education Pathway Program offers students not only an integrated learning experience across the University’s academic disciplines, but also the opportunity to earn an interdisciplinary minor in one of ten subjects. If you have questions regarding the General Education program and which requirements you must follow, see an Academic Evaluator in Student Services Center room 110, or call the Evaluations Office at 530-898-5957.

**GE Pathway Minors**

This course (GEOG 103) D1 Individual & Society requirement in the Science, Technology & Values pathway. The Pathways program allows students to earn an interdisciplinary minor simply by completing 18 units within a Pathway. The benefits of deciding to choose a GE Pathway and earn an interdisciplinary minor while completing GE are many. GE Pathways have been created by groups of committed faculty members with a passion for their Pathway theme. Courses in a Pathway contain shared thematic content,
allowing you to learn about a subject deeply from multiple points of view. You can declare a Pathway minor via the Portal in your Student Center; your Pathway minor will appear on your transcript upon graduation.

To complete an interdisciplinary Pathway minor, you must complete 18 units across the disciplinary areas of a single Pathway, including nine units of upper division within the same Pathway. You may count one Foundation course associated with your Pathway toward the 18 unit minor. For more information about Pathway minors, and for assistance with course selection, visit GE Pathways Minors and consult with an advisor in Academic Advising Programs, SSC 220. [http://catalog.csuchico.edu/viewer/12/GENED.html](http://catalog.csuchico.edu/viewer/12/GENED.html)

**Geography as a Major**

You, like many new students, may be uncertain about your choice of a major or career field. Thus courses taken in GE may help you become better acquainted with yourself and discover and deepen your interests and abilities in various academic disciplines and programs. If you are undeclared or uncertain about your major and would like to discuss geography and planning as a major, please see me or other faculty in the Geography & Planning Department [http://www.csuchico.edu/geop/](http://www.csuchico.edu/geop/). By taking this course, you have already fulfilled one of the course options for geography as a major. This course fulfills Geography & Planning Student Learning Goals 3.2, 5.1 and 5.2. [http://www.csuchico.edu/geop/department/index.shtml](http://www.csuchico.edu/geop/department/index.shtml).

**Learning objectives and course content:**

**Written Communication GE SLO**
- COURSE SLO: Students will articulate through various forms of written communication the social, political and economic implications of geospatial technologies on individual and society, through reading, reflection and critical evaluation of scholarly, popular and contemporary texts and other graphic, web-based, and multimedia geospatial sources.
- COURSE SLO: Students will demonstrate the ability to question, investigate, formulate ideas and draw well-reasoned conclusions through effective and appropriate written communication.

**Critical Thinking GE SLO:**
- STV SLO: Students are better able to assess competing claims using evidence and logic. (Critical Thinking GE SLO)
- COURSE SLO: Students will demonstrate critical thinking in evaluating the texts, applications, and visual and other media that pertain to geospatial technologies as they relate to issues of ethics (including privacy and legal issues, surveillance, cultural difference and appropriateness).

**Personal Responsibility GE SLO:**
- STV SLO: Students can formulate and investigate appropriate questions concerning the responsible use of science and technology.
- STV SLO: Students demonstrate understanding of how science and technology can impact and be impacted by values and diverse world-views, and they demonstrate the ability to assess the relationships between science, technology and their own values and views.
- COURSE SLO: Students demonstrate understanding of individual and societal impacts of geospatial technologies on themselves, their communities and the wider society and demonstrate the ability to assess and make decisions about the relationship between science, technology and their own values, views and personal choices.

**Course Materials**

You must have internet access for this course. You will download Google Earth™ and other web-based mapping programs and sources of data throughout the course of the semester. We will be using Blackboard Learn (BbL) Learning Management System.

*We will not be using a textbook for this course. We will use a variety of sources throughout the semester including journal articles, articles from the press, podcasts, videos, online resources and excerpts from selected texts. Because many of the topics that we are covering are rapidly evolving, such as individual privacy policies in the United States, the reading list is subject to change.*
Selected readings. Other readings videos, exercises and activities will be made available throughout the semester, either online, in digital or pdf format or other formats, including:


Zeiss, Geoff. 2013. The Future of national mapping agencies over the next 5-10 years Geoff Zeiss. Between the Poles: All about infrastructure. Geospatial Blog

**Links of interest:**


World Map: Harvard Site to explore, visualize and publish geographic information: [http://worldmap.harvard.edu/](http://worldmap.harvard.edu/)

ESRI Overview: [http://www.esri.com/what-is-gis/overview#overview_panel](http://www.esri.com/what-is-gis/overview#overview_panel)

GIS Glossaries: [http://www.esri.com/what-is-gis/overview.html#glossaries_panel](http://www.esri.com/what-is-gis/overview.html#glossaries_panel)


Free Geography Tools Website: [http://freegeographytools.com](http://freegeographytools.com)


Wix [www.wix.com](http://www.wix.com)
Course Evaluation and Grading:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Hands-on Application Exercises, blogs, wikis, or discussion board or activities</td>
<td>12 @ 10 points each</td>
</tr>
<tr>
<td>Lab Applications</td>
<td>3 @ 20 points each</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td></td>
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<tr>
<td>Research project</td>
<td></td>
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<tr>
<td>Final Exam (comprehensive)</td>
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<tr>
<td>Total points</td>
<td></td>
</tr>
</tbody>
</table>

Grading will be based upon the following scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Letter Grade</th>
<th>Percent</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-100</td>
<td>A</td>
<td>74-76</td>
<td>C</td>
</tr>
<tr>
<td>90-93</td>
<td>A-</td>
<td>70-73</td>
<td>C-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>84-86</td>
<td>B</td>
<td>64-66</td>
<td>D</td>
</tr>
<tr>
<td>80-83</td>
<td>B-</td>
<td>60-63</td>
<td>D-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
<td>&lt;60</td>
<td>F</td>
</tr>
</tbody>
</table>

Course content: We will cover these topics over the course of the semester.

Part 1: Introduction to Our Digital Planet: Foundations of Geospatial Technologies

1. Introduction: It’s a Geospatial World Out There: Defining Geospatial Technologies
   a. Internet, distributed data and the cloud
   b. Geospatial technologies today (industries, careers, and jobs)
2. Geographic Representation
   a. Spatial perceptions, cartographic representation and conventions
   b. Virtual environments
   c. History of GIS
   d. The role of geography in understanding our Digital Planet
   e. Critical thinking and critical assessment of map content
3. Basics of Geospatial Technologies
   a. Earth properties: location, coordinate systems, map projections
   b. Global Position System (GPS)
   c. Geographic Information Systems (GIS)
   d. Satellite imagery
   e. Spatial Data Infrastructure (SDI):
   f. Internet-based or web-mapping services and location-based services (LBS)

Part 2: Societal Implications of Geospatial Technologies

4. The Geospatial Web
   a. The Geospatial Web & Web 2.0
   b. User-generated content (UGI)
   c. Voluntary Geographic Information (VGI)
   d. Mashups
5. Crowdsourcing and crisis management
   a. Natural disasters
   b. Crowdsourcing
   c. weather, climate
   d. Remotely sensed agricultural data
   e. Internet, wikis, distributed data and the cloud
6. Geo-Political Concerns
a. Digital planet and the exercise of the State power (hegemonic cartography)
b. Representation of contested territory
c. Geospatial intelligence
d. The surveillant society
e. Supreme Court GPS ruling, Counter-terrorism policies

7. Social Implications: Under-represented populations
   a. Bridging the digital divide
   b. Contested spaces and counter-mapping
   c. Participatory GIS
   d. Legal application for land rights claim
   e. Social, environmental and spatial justice
   f. Appropriate technology

8. Societal Implications of Our Digital Planet
   a. The bleeding edge of technology: managing your digital profile – How to avoid getting cut!
   b. Internet (access to digital data) vs. Web (community, exchange, sharing)
   c. Spatial privacy
   d. Geo-social media: turning Facebook© into “Placebook”
   e. Wikis for updating photos, locations, descriptions
   f. Economy of geospatial technologies

9. Applications and Implications of Our Digital Planet
   a. Population and social welfare
   b. Political and electoral maps
   c. Environmental and public health
   d. Planning and infrastructure

10. The future of Our Digital Planet
    a. GIS & Education
    b. Careers in geography & GST

Classroom Collegiality and Expectations

We will discuss classroom conduct at the beginning of class and revisit the topic periodically throughout the semester. Please see me if you have issues with classmates’ behavior (side conversations, laptop, cell phone or other technology usage). The classroom should be a safe place where all ideas can be expressed freely and openly, as long as they do not include bigotry, intolerance or hatred. Please listen to me and to other students, and frame your commentaries in the spirit of supportive and constructive criticism. Use non-sexist language when speaking and writing.

If you have a documented disability that may require reasonable accommodations, please contact Accessibility Resource Center formerly known as Disability Support Services (DSS) for coordination of your academic accommodations. The ARC phone number is 898-5959 V/TTY or FAX 898-4411. Visit the ARC website at http://www.csuchico.edu/arc/

Add/Drop information: Students are responsible for handling the paperwork for adding or dropping this class. After September 7th you will need special permission of instructor to add or drop classes. After September 21st (Census Date) you will need a compelling reason to add or drop any courses. If the class is full and you wish to add, please see me after class or during office hours.

Academic Honesty Policy: Please see policies regarding plagiarism, taking and providing information, misrepresentation and academic integrity contained in Student Judicial Affairs: http://catalog.csuchico.edu/viewer/12/STUDJUDAFFAIRS.html and as contained in the 2012 University Catalog: http://catalog.csuchico.edu/viewer/12/UNIVPOL.html
GEOG 103 - Our Digital Planet: Geospatial Technologies & Society – Fall 2014
Please see BbL for specific readings and assignments

<table>
<thead>
<tr>
<th>Week</th>
<th>First day of Week</th>
<th>Topic</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 25</td>
<td>Introduction to course; What is GST? Geospatial Revolution</td>
<td>#1 Introduce self on BbL wiki #2 Assignment – Chap 1 Exercise</td>
</tr>
<tr>
<td>2</td>
<td>Sept 1*</td>
<td>The role of geography &amp; GST in Understanding our Changing Planet</td>
<td>Lab 1 *Campus closed Mon Sept 1 Labor Day #3 Assignment – Google Map of your Hometown</td>
</tr>
<tr>
<td>3</td>
<td>Sept 8</td>
<td>History of Cartography &amp; GIS; Digital Earth</td>
<td>#4 Assignment</td>
</tr>
<tr>
<td>4</td>
<td>Sept 15</td>
<td>Where in the geospatial world are you?</td>
<td>Lab 2</td>
</tr>
<tr>
<td>5</td>
<td>Sept 22</td>
<td>Georeferencing &amp; GPS, representing landscape, remote sensing and environmental applications</td>
<td>#5 Discussion Board</td>
</tr>
<tr>
<td>6</td>
<td>Sept 29</td>
<td>Exam #1 &amp; Lab #3</td>
<td>Exam #1 Wed Oct 1 Lab 3</td>
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</tbody>
</table>

**Part 1: Introduction to Our Digital Planet: Foundations of Geospatial Technologies**

**Part 2: Societal Implications of Geospatial Technologies**

<table>
<thead>
<tr>
<th>Week</th>
<th>First day of Week</th>
<th>Topic</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Oct 6</td>
<td>The Geospatial Web &amp; Web 2.0: VGI, UGI, crowdsourcing, Wikis, internet, distributed data and the cloud</td>
<td>#6 Wiki</td>
</tr>
<tr>
<td>8</td>
<td>Oct 13</td>
<td>Boundaries, contested territories, geopolitics, state sponsored mapping</td>
<td>#7 Writing Assignment</td>
</tr>
<tr>
<td>9</td>
<td>Oct 20</td>
<td>Drones, domestic drone policy, government and commercial domestic applications</td>
<td>#8 Discussion Board posting and peer response</td>
</tr>
<tr>
<td>10</td>
<td>Oct 27</td>
<td>Privacy, National security, Edward Snowden, Your cell phone is a tracking device</td>
<td>#9 Assignment</td>
</tr>
<tr>
<td>11</td>
<td>Nov 3</td>
<td>Individual Privacy: Facebook, social media; domestic drone policy; Privacy reconsidered</td>
<td>Final research project proposed topic due Nov 5th</td>
</tr>
<tr>
<td>12</td>
<td>Nov 10*</td>
<td>Individual Privacy and Social Networks – continued Video: Digital Nation &amp; Alone Together</td>
<td>Video guiding questions *Campus closed Nov 11 Veterans Day</td>
</tr>
<tr>
<td>13</td>
<td>Nov 17</td>
<td>GIS &amp; Society: Participatory GIS, underrepresented populations, digital divide, critical &amp; feminist GIS, social applications</td>
<td>#10 Assignment</td>
</tr>
<tr>
<td></td>
<td>Nov 24</td>
<td>Thanksgiving Holiday – No classes all week</td>
<td>Enjoy your holiday</td>
</tr>
<tr>
<td>14</td>
<td>Dec 1</td>
<td>Environmental and spatial justice</td>
<td>Discussion Board post and peer response #11 Final research project due Paper Due Dec 3 Digital representation Due Dec 6</td>
</tr>
<tr>
<td>15</td>
<td>Dec 8</td>
<td>Web maps, geospatial workforce, The economy of GST, GIS &amp; Education</td>
<td>#12 Final Activity</td>
</tr>
<tr>
<td>16</td>
<td>Dec 15</td>
<td>FINALS WEEK</td>
<td>Final Exam Wed 17th</td>
</tr>
</tbody>
</table>

NOTE: Schedule is subject to change at Professor’s discretion to enhance your learning experience

Effective Date 8/22/2014