URBP 275G: GEOGRAPHIC INFORMATION SYSTEMS OVERVIEW FALL 2013

Instructor: Dr. Ralph B. McLaughlin
Office location: Washington Square Hall (WSQ) 218B
Telephone: (408) 924 – 5860
Email: ralph.mclaughlin@sjsu.edu
Office hours: Tuesdays 4:00pm – 5:00pm and Thursdays 2:00pm – 3:00pm, or by appointment
Class days/time: Thursdays 7:30pm – 10:00pm (For 5 weeks, see dates on course calendar below)
Classroom: Washington Square Hall (WSQ) 208
Class website: https://sjsu.instructure.com/courses/1018089
Prerequisites: None
Units: 1

Course Catalog Description
An overview of Geographic Information Systems with a focus on applications to urban planning, including demographic data analysis, land use mapping, cartographic techniques and methods for determining the most appropriate display of quantitative data for a variety of intended audiences.

Course Description and Course Learning Objectives
This course provides a broad overview of key principles of GIS and will allow students to begin developing an appreciation for the technology and its application to urban planning. As this is a one-unit course, class sessions will be delivered using a seminar-style approach to learning and only held 5 times during the course of the semester. See the schedule below for class dates.

Upon successful completion of the course, students will be able to:

1. Critique the influence of spatial literacy on both the historical evolution of human settlement patterns and the efficacy of current public policy.
2. Describe how urban planners typically use GIS as a tool for the analysis and display of quantitative data.
3. Evaluate existing maps to assess how well they employ good map design principles
4. Prepare a basic and complete map using web-based cartographic tools.
Planning Accreditation Board (PAB) Knowledge Components

This course partially covers the following PAB Knowledge Components: 1d and 2b.

A complete list of the PAB Knowledge Components can be found at http://www.sjsu.edu/urbanplanning/courses/pabknowledge.htm.

Required Course Texts to Purchase


Course Assignments and Grading Policy

Your grade for the course will be based on the following assignments:

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percent of Course Grade</th>
<th>Course Learning Objectives Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay on Societal Impacts of Cartography (1500 Words)</td>
<td>50%</td>
<td>1 and 2</td>
</tr>
<tr>
<td>Portfolio of 3 “Best Practice” Map Designs</td>
<td>50%</td>
<td>3 and 4</td>
</tr>
</tbody>
</table>

Assignment 1: Essay on societal impacts of cartography

For this assignment, I’d like to you compose a short essay (approx. 1500 words not including references) outlining the three most transformative effects the field of cartography has brought to society. In addition to the three transformative effects, you should also include in your conclusion the directions that you think map-making should take in the near future. To build your arguments, you should draw upon not only the assigned text, Maps and Civilization: Cartography in Culture and Society, but also from a variety of other scholarly and popular sources. Your transformations should reflect “big-picture” impacts – e.g., on migration patterns, political power, and technological innovation. Standard style and referencing requirements apply (see below).

Assignment 2: Portfolio of three “Best Practice” map designs

For this assignment, I’d like to you create a portfolio of three maps that represent “best practice” in map design. You should draw heavily upon the assigned text, GIS Cartography: A Guide to Effective Map Design, when designing your maps. To demonstrate best practice, you will need to critique three existing published maps and include a brief (~3 paragraphs) description of what makes the designs substandard. You should then create three “best practice” maps that reflect a
width of applications (i.e., a variety of different data and/or scales) as well as depth (i.e., your maps should contain more than just one or two attributes). Your “best practice” maps do not need to be an exact replication of your three critiqued maps, but rather a exposition of how to improve the displayed features in the maps you critiqued. Each map should also include a 2 paragraph description of why the map reflects best practice. You do not need to use ArcGIS to create your best practice maps. You can use any other techniques/software (such as Adobe Photoshop or Powerpoint) to create your new maps. I will grade your portfolio based on the quality of your critique, the overall readability and layout of your maps, and how well you can articulate the elements of “best practice”– layout, font, color, and features. – and not on how well you can use ArcGIS. Standard style and referencing requirements apply (see below).

**Calculation of Final Course Letter Grade**

I will calculate the final letter grade for the course by weighting the grade for each assignment according to the percentages in the table above. To do this, I first convert the letter grade for each assignment to a number using a 4-point scale (A = 4.0, A- = 3.67, B+ = 3.33, B = 3, B- = 2.67, C+ = 2.33, C = 2.0, C- = 1.67, D = 1, and F = 0). I then use these numbers and the weights for each assignment to calculate a final, numerical grade for the course based on a 4-point scale. That number is converted back to a letter grade (A = 3.85+, A- = 3.50 – 2.84, B+ = 3.17 – 3.49, B = 2.85 – 3.16, B- = 2.50 – 2.84, C+ = 2.17 – 2.49, C = 1.85 – 2.16, C- = 1.50 – 1.84, D+ = 1.17 – 1.40, D = 0.85 – 1.16, F = 0 – 0.84).

**Other Grading and Assignment Issues**

Late assignments will not be accepted in this course without proper consent from the instructor prior to the submission date. Extra credit will not be available to students.

**Course Workload**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

**Academic Integrity Statement, Plagiarism, and Citing Sources Properly**

SJSU’s Policy on Academic Integrity states: “Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development” (Academic Senate Policy S07-2). The policy on academic integrity can be found at [http://www.sjsu.edu/senate/S07-2.htm](http://www.sjsu.edu/senate/S07-2.htm).

Plagiarism is the use of someone else’s language, images, data, or ideas without proper attribution. It is a very serious offense both in the university and in your professional work. In essence, plagiarism is both theft and lying: you have stolen someone else's ideas, and then lied by implying that they are your own.

**Plagiarism will lead to grade penalties and a record filed with the Office of Student Conduct and Ethical Development. In**
severe cases, students may also fail the course or even be expelled from the university.

If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues before you hand in draft or final work.

Learning when to cite a source and when not to is an art, not a science. However, here are some common examples of plagiarism that you should be careful to avoid:

- Using a sentence (or even a part of a sentence) that someone else wrote without identifying the language as a quote by putting the text in quote marks and referencing the source.
- Paraphrasing somebody else's theory or idea without referencing the source.
- Using a picture or table from a webpage or book without referencing the source.
- Using data some other person or organization has collected without referencing the source.

The University of Indiana has developed a very helpful website with concrete examples about proper paraphrasing and quotation. See in particular the following pages:

- Overview of plagiarism at www.indiana.edu/~istd/overview.html
- Examples of plagiarism at www.indiana.edu/~istd/examples.html
- Plagiarism quiz at www.indiana.edu/~istd/test.html

If you still have questions, feel free to talk to me personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

Citation style

It is important to properly cite any references you use in your assignments. The Department of Urban and Regional Planning uses Kate Turabian’s *A Manual for Writers of Research Papers, Theses, and Dissertations*, 8th edition (University of Chicago Press, 2013, ISBN 780226816388). Copies are available in the SJSU King Library. Additionally, the book is relatively inexpensive, and you may wish to purchase a copy. Please note that Turabian’s book describes two systems for referencing materials: (1) “notes” (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list. In this class, students should style (2).

Accommodation for Disabilities

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

You can find information about the services SJSU offers to accommodate students with disabilities at the Disability Resource Center website at www.drc.sjsu.edu.
Consent for Recording of Class and Public Sharing of Instructor Material

Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.

Library Liaison

The SJSU Library Liaison for the Urban and Regional Planning Department is Ms. Toby Matoush. If you have questions, you can contact her at toby.matoush@sjsu.edu or 408-928-2096.

SJSU Writing Center

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. The Writing Center website is located at http://www.sjsu.edu/writingcenter.
# Course Schedule*

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 10</td>
<td>Introduction to course; early history of cartography; discussion on importance of spatial literacy</td>
<td>Thrower, Chapters 1-4.</td>
<td></td>
</tr>
<tr>
<td>Oct 24</td>
<td>The modern reemergence of cartography; contemporary applications in urban studies and planning</td>
<td>Thrower, Chapters 5-9.</td>
<td>Essay on Societal Impacts of Cartography</td>
</tr>
<tr>
<td>Nov 7</td>
<td>Introduction to Map Design</td>
<td>Peterson, Chapters 1-3</td>
<td></td>
</tr>
<tr>
<td>Nov 21</td>
<td>Creating Readable Maps: Font and Color Theory</td>
<td>Peterson, Chapter 4-5</td>
<td></td>
</tr>
<tr>
<td>Dec 5</td>
<td>High Standards: Best practice design for specific map features</td>
<td>Peterson, Chapter 6</td>
<td></td>
</tr>
<tr>
<td>Dec 12 (Finals Week)</td>
<td>None</td>
<td>None</td>
<td>Portfolio of 3 “Best Practice” Map Designs</td>
</tr>
</tbody>
</table>

*Note: This schedule is subject to change with fair notice in class or by email.