

SYLLABUS

┌

LIS 693

Cartographic and Geographic Issues for Librarians
Summer 2008, First Session

Summer 2008: Monday, May 27 through Friday, June 13; 5:00 to 7:40 p.m; in
Bilger 319.

Instructor: Gary L. Fitzpatrick

Cell phone: 315/576-2396 (do not leave messages on this number)

Messages: leave with LIS office or at the Kaimana Beach Hotel: 808/923-
1555

Email: glfitz@verizon.net

Office: POST 315

Office hours: in second and third weeks I will be available at your
convenience.

Course Description

The course focuses on the geographic elements of information and the ways
in which new geographic technologies offers new opportunities and
challenges for librarians and information specialists. Students will be
introduced to a data model that can be applied to objects, persons, and
events in a way that facilitates geographic analysis.

Prerequisite: None.

Core Competencies Addressed

- Knowledge accumulation education and lifelong learning
- Technological Knowledge

Program Learning Objectives Addressed

This course addresses the following objectives of the LIS Program enabling
students to

- Apply basic competencies and knowledge that are essential for
providing, managing, and designing information services in a variety of
information environments.
- Demonstrate theoretical understanding of and basic competencies in
evaluating, selecting, and organizing information sources.
- Demonstrate the professional attitudes and interpersonal and
interdisciplinary skills needed to communicate and collaborate with
colleagues and information users.
- Demonstrate an understanding of the above goals within the
perspective of prevailing and emerging technologies.

Professional Expectations

All students in the Program are expected to become familiar with and adhere to the Professional Expectations posted at <http://www.hawaii.edu/slis/students/profexp.html>

Course Objectives

The student will be able to

- Demonstrate an understanding that a spatial or geographic element is present in many forms of information found in libraries, archives, and information centers.
- Recognize that data is often presented in the form of attributes and that the proper classification of such attributes makes the data mappable and available through spatial analysis techniques.
- Evaluate the temporal nature of the spatial attributes associated with data and information.
- Appreciate traditional maps as graphical databases.
- Recognize the increasing importance of geographic information systems (GIS) and other modern geographic technologies in research in a wide variety of fields and as the emergent technology for governments and large scale entities.

Teaching Methods

Previous teaching experience has shown that library and information science students often have limited cartographic skills or geographic knowledge (due to national disrespect of the importance of geographic education). Thus, teaching methods are utilized which help develop fundamental map reading skills while also providing an understanding of theoretical aspects of the geographic nature of information:

- Class lectures and discussion.
- Map based exercises.
- Guided tour of downtown Honolulu to examine historic maps of the area.
- Field mapping project.
- Guest speakers augmented with follow-up discussions led by instructor and/or students.

SPECIAL NOTE: Due to the limited operation of the map library because of the aftereffects of the 2004 flood, many lectures and assignments that were utilized in previous versions of this course are not practical. After discussions with the class to determine the time constraints under which students are operating, I may offer the opportunity to meet in small groups at various times to examine and study a variety of maps and geographical reference tools.

In addition, I will be available on an almost unlimited basis for individual or small group discussion during the second and third weeks of the class. These meetings can be arranged as early as breakfast to after the class is over.

Research Methods

The following research methods are incorporated in assignments: instructional design and pre-post testing. They may also engage in survey research.

Required Texts

Monmonier, Mark. How to Lie with Maps, Second Edition. University of Chicago Press, Chicago: 1996

Technology Requirements

In this course, you will be expected to accomplish the following:

- Post and respond to messages using email.
- Produce reports on either a Mac or PC word processing program.
- Use various databases including library online catalogs and Internet sources.
- Create presentations using PowerPoint or other presentation applications.

PROJECT 1: A DATA MODEL OF STATISTICS OF LIBRARIES IN HONOLULU

Nature of Project: Students will work individually or in small groups to develop an understanding of how data can be collected and organized in a way that allows it to be analyzed and presented within geographic context.

The assumption is that you are collecting information that will be combined with that of other librarians or information specialists on a larger geographic scope (state-wide, national, regional, international, etc.). In a textual report, you will define the scope of the larger project and the criteria you will use for selecting the libraries included in your portion of the report. This report will have to include a data dictionary defining each data element carefully and present a standard for the format of the data, what terms or values are acceptable, etc.

If you wish, you can compile your findings in a database program such as Microsoft Access, or in a simple spreadsheet such as Excel or QuattroPro.

The project must meet the following criteria:

- Your project should include twenty-five libraries in Hawaii (they do not all have to be similar in nature).
- There must be at least three fields that provide some form of geographic coordinate or address.
- There must be at least four fields that identify some form of political or administrative unit in which the library is located.

- There will be at least five fields for the name of the institution, type, phone number, etc.
- At least five major themes will be identified (e.g., collection size, circulation, patron visits, etc.)
- Each theme will consist of one or more thematic data elements plus supporting fields (date collected, who collected it, etc.)
- A legend will be developed for a theoretical GIS presentation that shows how the five major thematic elements can be classified and symbolized. In some cases, data for individual libraries should be presented, in other cases the data for different political or administrative units should be combined.

YOU DO NOT HAVE TO COLLECT ALL THE DATA FOR THE THEMATIC FIELDS!!!
Collect data for enough institutions (roughly ten of your twenty-five) to prove that the guidelines of your data dictionary work when actually applied.

Groups will turn in the written report on the nature of their data collection project and the data dictionary. Each group will make a formal presentation to the class in which the data model will be explained and a presentation made of the legend of the theoretical map based on the data. (If I get enough data ahead of time from students, I may be able to pull their data into a GIS program and create a project that will take the place of the theoretical map legend.)

The project will be evaluated on five elements, with a maximum of twenty points for each:

- The report detailing the nature of the project and the rationale behind the selection of the data elements.
- The data dictionary (I will be looking for logic of construction, appropriateness of the data format, etc.)
- Correlation of actual data collected to the data dictionary
- Logic of the structure of the legend for the theoretical map
- Quality of the group presentation

The group presentation will be made on Thursday, June 12. The final version of the written portion will be due on the last day of class.

PROJECT 2: LAND USE AND TRANSPORTATION MAP OF A PORTION OF WAIKIKI

Nature of Project: Students will work individually or in small groups (2 or 3) to produce a map showing land use and transportation features of an assigned area of Kapiolani Park and surrounding territory. The map is to be done on paper using ink and colored pencils and will be accompanied by a short explanation (two to four pages will be sufficient) of the audience

for whom the map is intended (students studying ecology, a city engineer, a person writing a report for Hawaiian tourism officials, etc.) and how the needs of that audience dictated the types of decisions that were made in the mapping process.

The third day of class will consist of a walking tour of the area in which students will have a chance to make observations and begin to assess the type of map they will create. Students are encouraged to consult land use and transportation maps in the map library or on the Web for ideas.

The quality of your art work will not be reflected in your grade. I will be looking at the intellectual processes behind your artwork and how your map reflects the geographic elements of information.

Students will be provided with a base map that can be used directly or photocopied so that they do not have to figure out how to produce an accurate map of the area of interest.

Criteria for assessment

Maps will be assessed on ten elements, with each counting for ten points out of a hundred:

1. Explanation of the audience for the land use and transportation map of Waikiki
2. Scope of land use issues identified
3. Scope of transportation features identified
4. Logic of the classification of land use features
5. Logic of the classification of transportation features
6. Choice of symbols for land use features
7. Choice of symbols for transportation features
8. Organization of the legend for land use features
9. Organization of the legend for transportation features
10. Clarity of the arrangement of the elements of your map

GRADING

Grades will be computed based on two hundred points for the projects and fifty points for class room participation.

Course Schedule

#

Date

Topics/Assignments

Assignments

1

Tuesday 5/27

SPATIAL RELATIONSHIPS AND THE COMPONENTS OF DATA AND INFORMATION

Introduce course.

- Components of data and information
- Review syllabus

BREAK

Class projects:

- Waikiki mapping project as example of traditional cartographic data and presentation
- Library data modeling as example of capabilities of modern geographic technologies.

Reading: Monmonier, Chapters 1, 2, and 3.

2

Wed.

5/28

FROM MAPS TO GEOGRAPHIC

DATA MODELS

Describing the earth

- Coordinate systems, map projections, addressing systems, itinerary measures, etc.

BREAK

Basic map reading

- Scale, coordinates, measurements
- Physical features
- Cultural features

BREAK

Geographic features

- Points
- Lines
- Polygons

3

Thurs.

5/29

WALKING TOUR OF

WAIKIKI PROJECT AREA

- Meet across the street from the New Otani Kaimana Beach Hotel
- The scope of the project area will be defined
- Observations about transportation and land use

Reading: Monmonier, Chapters 4, 5, & 6

4

Friday
5/30

PROJECT WORK DAY

- Explore the project area in person or through GoogleEarth
- Describe the audience for the land use map you will make of the project area around Kapiolani Park.

Work on Waikiki mapping project.

5

Monday
6/2

data modeling Structuring data attributes and symbolization

- Unique identifiers
- Perspective of the classifier
- Standards

BREAK

Symbolization of data

- Lines
- Fills
- Point symbols

BREAK

Traditional maps as graphical databases

- Accuracy of maps
- Generalization in analog mapping
- Deconstructing maps

Reading: Monmonier, Chapters 7 & 8

6

Tuesday
6/3

THE ORGANIZATION OF HUMAN ACTIVITY

Political geography

- International, national, first order divisions
- State, county, and local political units

BREAK

Administrative geography

- Election geography
- Operational subdivisions
- School districts, tax districts, etc.

BREAK

Managing large enterprises

- GIS as a management information system
- Managing infrastructure
- Managing growth
- Managing services

Reading: Monmonier, Chapters 9 & 10

7

Wed.

6/4

MAPPING THE KINGDOM OF HAWAII

The early mapping of Hawaii

- Mapping of Hawaii for western interests
- Reflections of change in Hawaiian culture

BREAK

Surveying the mahele

- Beginning of mapping by Hawaiians
- Surveying and the mahele process

BREAK

The Hawaiian Government Survey

- Correcting mahele surveying
- Defining Hawaii's mapping requirements
- Scientific mapping

8

Thurs.

6/5

PLACE NAMES

Place names and the human connection to the land

- Cultural aspects of names
- Forms of names
- Authority for names

BREAK

GUEST LECTURER

John K. R. Clark, author of *The Beaches of Hawaii* and other reference works on beaches of the islands of Hawaii will discuss the cultural implications of beach names in Hawaii as well as the research that went into his works on Hawaiian beach names.

9

Friday

6/6

Temporal nature of geography

- Changes in the physical environment
- Changes in political entities

BREAK

Maps and the media

- Film and television
 - Newspapers and magazines
- BREAK
- Project review
- Class discussion of projects

10

Monday

6/9

GEOGRAPHY AND CARTOGRAPHY IN LIBRARIES

Cartographic and geographic innovations

- Evolution of paper-based mapping
- Evolution of modern geographic technologies

BREAK

Traditional map librarianship

- Early map collecting
- Post-WWII
- Map and geography organizations

BREAK

Lies and Librarians

- Review of the readings from Monmonier in context of library and information science.

Tuesday

6/10

THE OWNERSHIP OF LAND

- Metes and bounds
- Public Land Survey System
- Hawaiian land tenure system

BREAK

GUEST LECTURER

Pat Cummins: forensic surveyor will discuss surveying as a profession, history of surveying in Hawaii, and role of surveyors in land issues.

BREAK

11

Wed.

6/11

- KAMEHAMEHA DAY HOLIDAY

12

Thurs

6/12

ORAL PRESENTATIONS OF PROJECT 1

13

Friday
6/13

Class Wrap-up

Due: Maps from Project 2

LIS 686/EDCS 686 Violet Harada Gary L. Fitzpatrick 5/21/8 5/21/8