



COURSE SECTION: 7397/18296

COURSE TITLE: Mapping Individuals, Organizations, and Communities:
Applications of Geographic Information Systems for Social Work

TIME: Mondays/Wednesdays, 9-12

FACULTY: Dennis Kao, MSW, PhD / Rebecca Mauldin, Teaching Assistant

OFFICE HOURS: Mondays/Wednesday, 12-1:30, Room 402; or by appointment

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I. COURSE

A. Description

Provides an introduction to “spatially-informed” social work practice and research; and practical skills in using geographic information systems (GIS) to map and understand individuals, organizations, and communities.

B. Purpose

This course examines the role of geography on human behavior, applying a spatial perspective to understand the social problems affecting individuals and communities. Students will be introduced to GIS technologies and their potential applications in social work practice settings, as well as social work research. Students will gain skills in using GIS software and spatial and non-spatial data (e.g. Census, administrative, etc.) in order to create multi-layered maps and conduct basic spatial analysis that can help to inform and further social work practice and research.

II. COURSE OBJECTIVES

Upon completion of this course, students will be able to:

1. Assess the role of geography as an important aspect of the social environment and its impact on human behavior and social work practice (EPAS 2.1.7 and 2.1.9).
2. Identify the potential applications of GIS and mapping in advancing social work practice and research (EPAS 2.1.6).
3. Utilize GIS as a tool for engaging, assessing, and evaluating the strengths and needs of individuals, organizations, and communities (EPAS 2.1.10).
4. Integrate knowledge from various data sources with the use of GIS in order to better understand problems, make informed decisions, and promote effective social service delivery (EPAS 2.1.3 and 2.1.6).
5. Conduct GIS and spatial analyses to inform program and policy development (EPAS 2.1.8 and 2.1.10).
6. Develop skills in working with GIS technology and mapping and analyzing spatial and non-spatial data in order to inform social service delivery (EPAS 2.1.1 and 2.1.9).
7. Communicate findings effectively through the development and presentation of multi-layered maps (EPAS 2.1.6).

III. COURSE CONTENT

This course will include the following content areas:

1. Basic geographic/spatial concepts
2. Geographic Information Systems (GIS)
3. Mapmaking basics
4. Spatial data management and analysis
5. Applications of GIS for social work practice and research

IV. COURSE STRUCTURE

Each class session (Mondays and Wednesday) will be divided into two parts: 1) lecture and discussion; and 2) lab section. Students should bring their laptops (if available) to every session.

The course will also utilize ArcGIS.com—an online-based data sharing application—to allow students to share and provide feedback on data and maps. *The professor reserves the right to alter readings, course topics, and assignments as needed during the course of the semester to better accommodate learning goals and time constraints.*

V. TEXTBOOKS

- Required: Kurland, K.S. & Gorr, W.L. (2012). GIS Tutorial for Health (4th ed.). Redlands, CA: Esri Press.
- Recommended: Steinberg, S.J. & Steinberg, S.L. (2006). Geographic Information Systems for the Social Sciences. Thousand Oaks, CA: SAGE Publications.
- Other assigned readings will be posted on the course Blackboard.

VI. COURSE REQUIREMENTS

The final grade for this course will be based on the following assignments:

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| ▪ Class Attendance | 10% |
| ▪ Weekly Lab Assignments (from GIS Tutorial book) (4 total) | 40% |
| ▪ Final Mapping Project | 50% |

All assignments should be uploaded to the course blackboard by the deadlines specified below. Late submissions will be accepted for all assignments, however, ***the grade value will be reduced by 10% for each day late.***

VII. EVALUATION AND GRADING

The following standard grading scale has been adopted for all courses taught in the College:

A	96% to 100%	C+	76% to 79%
A-	92% to 95%	C	72% to 75%
B+	88% to 91%	C-	68% to 71%
B	84% to 87%	D	64 to 67%
B-	80% to 83%	F	Below 64%

VIII. POLICY ON INCOMPLETES

A grade of "I" (Incomplete) is a conditional and temporary grade given when students are either: (a) passing a course; or (b) still have a reasonable chance of passing in the judgment of the instructor but, for non-academic reasons beyond their control have not completed a relatively small part of all requirements. Students are responsible for informing the instructor immediately of the reasons for not submitting an assignment on time or not taking an examination. Students must contact the instructor of the course in which they receive an "I" grade to make arrangements to complete the course requirements. Students should not re-register for the same course in a following semester in order to complete the incomplete requirements.

The grade of "I" must be changed by fulfillment of course requirements within one year of the date awarded or it will be changed automatically to an "F" (or "U" [Unsatisfactory] in S/U graded courses). The instructor may require a time period of less than one year to fulfill course requirements and the grade may be changed by the instructor at any time to reflect work complete in the course. The grade of "I" may not be changed to a grade of W.

IX. POLICY ON ACADEMIC DISHONESTY AND PLAGIARISM

Students are expected to demonstrate and maintain a professional standard of writing in all courses, do one's own work, give credit for the ideas of others, and provide proper citation of source materials. Any student who plagiarizes any part of a paper or assignment or engages in any form of academic dishonesty will receive an "I" for the class with a recommendation that a grade of F be assigned, subsequent to a College hearing, in accordance with the University policy on academic dishonesty. Other actions may also be recommended and/or taken by the College to suspend or expel a student who engages in academic dishonesty.

All papers and written assignments must be fully and properly referenced using APA style format (or as approved by the instructor), with credit given to the authors whose ideas you have used. If you are using direct quotes from a specific author(s), you must set the quote in quotation marks or use an indented quotation form. For all direct quotes, you must include the page number(s) in your text or references. Any time that you use more than four or five consecutive words taken from another author, you must clearly indicate that this is a direct quotation. Please consult the current APA manual for further information.

Academic dishonesty includes using any other person's work and representing it as your own. This includes (but is not limited to): using graded papers from students who have previously taken this course as the basis for your work. It also includes, but is not limited to submitting the same paper to more than one class. If you have any specific questions about plagiarism or academic dishonesty, please raise these questions in class or make an appointment to see instructor. This statement is consistent with the University Policy on Academic Dishonesty that can be found in your UH Student Handbook.

X. COURSE SCHEDULE, READINGS, AND ASSIGNMENTS

Week	Date	Primary Topics	Readings	Lab	Assignments
1 st	6/2	Course overview/syllabus Intro to GIS & social work Set-up laptops/software	None	<i>GIS Tutorial</i> , Ch. 1	Lab Assignment 1 (due Friday, 6/6, midnight)
	6/4	Basic spatial and GIS concepts Intro to ArcGIS	Steinberg & Steinberg (2006), Chapters 1 and 2.	<i>GIS Tutorial</i> , Ch. 2	Select and complete one of the assignments from Ch. 2 (p. 107-110).
2 nd	6/9	Intro to spatial data Designing maps Symbolizing features	Hillier (2007) Esri (2011), pp. 1-10	<i>GIS Tutorial</i> , Ch. 3	Lab Assignment 2 (due Friday, 6/13, midnight)
	6/11	Intro to spatial data (cont.) Projections Excel 101	Queralt & Witte (1998) Foltz (2007)	<i>GIS Tutorial</i> , Ch. 4	Select and complete one of the assignments from Ch. 3 (p. 150-155) or Ch. 4 (p. 205-211)
3 rd	6/16	Working with spatial data (cont.) Census data Joining tables	Hirshorn & Stewart (2003) Gambir et al. (2009), pp. 1-12	<i>GIS Tutorial</i> , Ch. 5	Lab Assignment 3 (due Friday, 6/20, midnight)
	6/18	Working with spatial data (cont.) Geocoding	Payne & Gainey (2009) McLafferty (2003)	<i>GIS Tutorial</i> , Ch. 6	Select and complete one of the assignments from Ch. 6 (p. 286-290)
4 th	6/23	Basic spatial analysis tools Final project consultations	Wong & Hillier (2001) Naphtali et al. (2008)	<i>GIS Tutorial</i> , Ch. 7	Lab assignment 4 (due Friday, 6/27, midnight)
	6/25	Putting it all together Creating effective maps Final project consultations	Rine et al. (2012) Monmonier (2005)	<i>GIS Tutorial</i> , Ch. 10	Select and complete one of the assignments from Ch. 7 (p. 328-333).
	July	Work and complete final projects			Final Project Proposal (due Monday, 6/30, midnight) Final Project Paper (due Friday, 7/18, midnight)

XI. REFERENCES

- Esri (2011). *Place matters in the helping professions: GIS for human and social service organizations*. Redlands, CA: Esri.
- Foltz, R. (2007). There's No Place Like Close to Home: Illinois Takes a Geographic Approach to Foster Care. *healthyGIS: GIS for Health and Human Services, Fall*.
- Gambir, S., Reece, J., Martin, M., Agyeman, K., & Ratchford, C. (2009). *Utilizing GIS to Support Advocacy and Social Justice: A Case Study of University-Led Initiatives*. Columbus, OH: The Ohio State University Kirwan Institute for the Study of Race and Ethnicity.
- Hillier, A. (2007). Why social work needs mapping. *Journal of Social Work Education, 43*(2), 205-222. doi: 10.5175/jswe.2007.200500524
- Hirshorn, B. A., & Stewart, J. E. (2003). Geographic Information Systems in Community-Based Gerontological Research and Practice. *Journal of Applied Gerontology, 22*(1), 134-151. doi: 10.1177/073346402250476
- Kurland, K.S. & Gorr, W.L. (2012). *GIS Tutorial for Health* (4th ed.). Redlands, CA: Esri Press.
- McLafferty, S. L. (2003). GIS and health care. *Annual Review of Public Health, 24*(1), 25-42.
- Monmonier, M. (2005). Lying with Maps. *Statistical Science, 20*(3), 215-222.
- Naphtali, Z. S., Restrepo, C. E., Zimmerman, R., & Wagner, R. F. (2008). Maps expand asthma hazards awareness: GIS helps policy makers see where childhood asthma, schools and pollution sources collide. *healthyGIS: GIS for Health and Human Services, Winter*.
- Payne, B. K., & Gainey, R. R. (2009). Mapping Elder Mistreatment Cases: Interactions Between Mistreatment, Dementia, Service Utilization, Access to Services, and Disadvantage. *Journal of Human Behavior in the Social Environment, 19*(8), 1025-1041. doi: 10.1080/10911350903269203
- Queralt, M., & Witte, A. D. (1998). A Map for You? Geographic Information Systems in the Social Services. *Social Work, 43*(5), 455-469. doi: 10.1093/sw/43.5.455.
- Rine, C. M., Morales, J., Vanyukevych, A. B., Durand, E. G., & Schroeder, K. A. (2012). Using GIS Mapping to Assess Foster Care: A Picture Is Worth a Thousand Words. *Journal of Family Social Work, 15*(5), 375-388. doi: 10.1080/10522158.2012.719184
- Steinberg, S.J. & Steinberg, S.L. (2006). *Geographic Information Systems for the Social Sciences*. Thousand Oaks, CA: SAGE Publications.
- Wong, Y.-L. I., & Hillier, A. E. (2001). Evaluating a Community-Based Homelessness Prevention Program. *Administration in Social Work, 25*(4), 21-45. doi: 10.1300/J147v25n04_02