

UPP 462 Computer Topics in Urban Planning: Intermediate GIS for Planners Spring 2010

Primary Instructors: Nina Savar (nsavar@uic.edu), Mirabai Auer (mauer2@uic.edu),
Kevin Gibbs (kgibbs3@uic.edu)

Guest Instructors: William "Max" Dieber (maxdbr@uic.edu)

Wednesday 6:00 – 9:00 pm, SEL 2058, CRN 30277

Wednesday 12:30 – 3:30 pm, SEL 2058, CRN 30846

Office Hours: Nina Savar is around most of the time during the week, but please email for appointment. Mirabai Auer and Kevin Gibbs will be available on Monday and Tuesday evenings, provided an appointment is requested via email by 10 P.M. the evening before.

Philosophy and Background: Nina has worked in GIS and data "wrangling" for over 20 years. Previously employed by the Northeastern Illinois Planning Commission (NIPC), Nina starred in the role of GIS Manager, ARC/INFO specialist, and metadata evangelist. Since 2008 Kevin Gibbs has worked at the UIC Health Policy Center and received his MUPP from CUPPA in 1999. He was previously employed by the City of Chicago as a GIS Coordinator since 1998 and is serving his second term on the board of the Illinois GIS Association. Mirabai Auer is currently a Research Associate at the Center for Urban Economic Development (CUED) as well as a Sr. GIS Analyst for Join & Relate Consulting. She is also a MUPP and has worked as a data analyst/visualizer for the past 5 years in the public, private, and non-profit sectors. Max Dieber served as NIPC's Research Department manager, demographer/statistician, and ArcView specialist for 30 years.

Because of our varied experiences, we bring different points of view to many topics in this class. We constantly challenge what we know and believe these challenges strengthen our understanding of the finer points of GIS. Even more than our introductory course, this course is a collaboration between teachers and students. We all will learn from each other.

Objectives and Expectations of Course: Our three main objectives are to teach *independent working styles*, *good data processing habits*, and *techniques for project organization*. We will reinforce topics previously taught in our introductory course and advance our GIS use by introducing several extensions, including Network Analyst and Spatial Analyst. We will teach students feature editing and geodatabase structures. In addition, we will apply GIS to several applications, along the way covering data collection and compilation techniques; discovering data resources; learning how to teach each other GIS topics; applying GIS to a final project of the student's choice; pushing layouts to Adobe Illustrator for post processing; and learning about raster data. Certain topics will recur throughout the course, such as geodatabases and data collection and wrangling. All students are expected to keep project logs for all work they do.

Students should feel even more comfortable with ArcGIS 9.3 interface after this course and feel more secure data wrangling, reading and understanding help files and other on-line GIS

resources, and performing spatial analyses. The pace of this course will be fast, so it is up to each student to keep up with assignments and request assistance when necessary.

ArcGIS 9.3 software is available on ACCC computers in SEL 2058 in addition to computers in the CUPPA lab and CUPPA ancillary studio space in B17. Your instructors have free student software to distribute from ESRI: *ArcView 9.3.1 and Extensions Student Edition – One-Year Education Use Only*. If you are interested in installing this software on your personal computer, you will be responsible for uninstalling any other demo ESRI software before you can install this copy. Please see information at: http://www.esri.com/industries/university/education/student-eval_faqs.html **Always use your @uic.edu email when registering with ESRI.**

Student Evaluation: Performance will be evaluated on the basis of class attendance, homework, and 2 student presentations, and a final project. The relative weights are listed below

30 points	Attendance	1 point granted for attendance; 1 point granted for participation (2 total per class)
30 points	Final Project	Oral presentations will be made in week 14 (April 21) and week 15 (April 28); written reports are due at time of presentation
40 points	2 oral student presentations (8 pts each) 6 or 7 homework assignments	Due dates as scheduled throughout semester (stay tuned)

If you cannot make a certain class, you are still responsible for the material covered. You **MUST** email all primary instructors ahead of time to let us know when you will miss class.

WE WILL NOT ACCEPT ASSIGNMENTS VIA EMAIL.

Required Materials:



USB flash drive capable of holding at least 2 Gb of work.

In addition, a series of pdf's with tutorials and other information will be uploaded to Blackboard. In the first week of class you will receive access codes to gain access at no charge to ESRI's Virtual Campus and these will be required reading.

Reference Books: (not required but useful)

Mitchell. 2005. *ESRI Guide to GIS Analysis – Spatial Measurements and Statistics, Volume 2*. ESRI Press, Redlands, CA. ISBN: 1-589481-16-X

Zeiler. 1999. *Modeling Our World – The ESRI Guide to Geodatabase Design*. ESRI Press, Redlands CA. ISBN: 1-879102-62-5

Brewer, Cynthia A. 2005. *Designing Better Maps – A Guide for GIS Users*, ESRI Press, Redlands, CA. ISBN: 1-58948-089-9.

Krygier, Wood. 2005. *Making Maps – A Visual Guide to Map Design for GIS*. The Guilford Press, New York. ISBN: 1-59385-200-2

Mitchell. 1999. *ESRI Guide to GIS Analysis – Geographic Patterns and Relationships, Volume 1*. ESRI Press, Redlands CA. ISBN: 1-879102-06-4

O’Looney. 2000. *Beyond Maps – GIS and Decision Making in Local Government*. ESRI Press, Redlands CA. ISBN: 1-879102-79-X.

Provides useful background in understanding uses of GIS by local government

Thomas and Ospina. 2004. *Measuring Up – The Business Case for GIS*. ESRI Press, Redlands CA. ISBN: 1-58948-088-0 Interesting examples of use of GIS....see pp25 and 26 for project created by course instructors!