UPP 461 Geographic Information Systems for Planners, Fall 2011

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Teaching Assistant: Diego Silva Ardila (dsilva4@uic.edu)

There are four sections of this course. Each section will have two co-instructors. All sections meet in SEL 2249.

Day and Time	Undergraduate CRN	Graduate CRN	Instructors
Monday 6:00-9:00	33883	33884	Dieber Eisenberg
Wednesday 12:30-3:30	32435	32436	Barr Savar
Wednesday 6:00-9:00	32437	32438	Savar Eisenberg
Thursday 12:30-3:30	32431	32432	Dieber Eisenberg

Office Hours: By Appointment (via email) is required. Do not drop in to CUPPA B13 or the UDVL lab in CUPPA B15 with "a quick question" without emailing us first. We might not be there or, incredible as it may sound, we may be working on something else. In fact, Yochai works on west campus so he only is available by appointment. If you need help with an exercise, you should first contact Diego Silva Ardila at dsilva4@uic.edu. Should you require services of a tutor, we can provide you with a list of individuals that could help out.

Primarily, this course is about learning ArcGIS Desktop, although we will explore a range of GIS issues along the way. The SEL 2249 computers are loaded with ArcGIS 10 (ArcInfo level) as are the computers in the CUPPA labs. The six-month demonstration version of the software available with the main text book, Getting to Know ArcGIS Desktop – 2nd Edition for ArcGIS 10, is ArcGIS 10 (ArcEditor level). Used books for Version 10 (if you can find them) may not have software or data but that is OK because we can help you get the software and data. DO NOT GET A VERSION OF THE SOFTWARE, THE EXERCISE DATA, OR THE TEXTBOOK DESIGNED FOR VERSIONS 8.X OR 9.X. This is important because we are teaching version 10 and, in many ways, it is very different from earlier versions.

Student Evaluation: Performance will be evaluated on the basis of class attendance (21 points), final project (37 points), and nine extra exercises and a map exercise (42 points).

42 points	9 Extra Exercises: the first 5 are worth 4 points each; the last 4 are worth 5 points each; plus a 2 point Map Exercise	Due as shown on each exercise 1 point subtracted for late exercise - "Late" means after 5pm on the due date
37 points	Final Project	Oral presentations during week 13, 14 Written report due Friday, Dec. 2, 2011
21 points	Attendance	1.5 points subtracted per missed class

Usually each class will include lecture and lab. Attendance in class is expected.….and attendance means all of class! Usually there is much content to cover in class so classes will promptly start at the scheduled time.

Extra Exercises, unless we tell you otherwise, are due to CUPPAH B-15 by end of day (5pm):

for Monday classes: Friday after exercise is assigned
for Wednesday classes: Monday after exercise is assigned
for Thursday classes: Tuesday after exercise is assigned

We will not accept exercises via email. Drop boxes for your exercises are found outside Suite B-20 and the UDVL lab (B-15) in the basement of CUPPA Hall.

If we ask you to redo an exercise (and most of you will get that opportunity), you have **two weeks from the day it is returned to you** to complete it for full credit. Redone exercises will not be accepted after this two week period. There will be only 1 redo opportunity per exercise. A redone exercise **MUST** be handed in with your original exercise or we will be unable to grade it.

All exercises handed in must have your name, section (Mon , Wed 12:30, Wed 6:00, Thurs), course number (UPP461), and date ON EVERY PAGE. Exercises that are more than one page should be stapled. We will be unable to grade improperly labeled or unstapled exercises.

When emailing be sure to email both your instructors and the TA to insure quickest response. Emails must have the following in subject line: your name, UPP461, section, topic of email. For example: DieberUPP461_Wed1230_EE05. Attachments to emails also need to contain your name, UPP461, section and topic.

There are about 70+ students across four sections so we need your help to keep emails and attachments as well as your handed-in exercises organized.

Required Books and Materials:

USB flash drive capable of holding 1 Gb of data.

Krygier, Wood. 2011- 2nd Edition. ***Making Maps*** *– A Visual Guide to Map Design for GIS.* The Guilford Press, New York. ISBN: 978-1-60918-166-6.

Mitchell. 1998. ***Zeroing In*** *– Geographic Information Systems at Work in the Community*. ESRI Press, Redlands CA. ISBN: 1-879102-50-1. A good summary of examples of things you can do with GIS. We will use this book for only 1 week so share a copy with a classmate, if possible.

Ormsby, Napoleon, Burke, et al. 2010. ***Getting to Know ArcGIS Desktop*****, 2nd Edition for ArcGIS 10**. ESRI Press, Redlands CA. ISBN: 978-1-58948-260-9. One disk packaged with this edition contains the exercise data (see note below on this information). If your book is new, you can use the key number on the inside back cover to download a six month evaluation version of the software (with ArcEditor level of functionality) from ESRI's website. See page 577 of your textbook for instructions. You may install this ArcEditor software on your personal computers. DO NOT install it on UIC equipment. In order to register this software easily, your computer

must have internet access. MAC users…it won't work on your computers unless you have a windows operating system. A guide for installation on a MAC can be found on the UDVL website: (http://www.uic.edu/cuppa/udv/GIS/ArcGISonMac200911.pdf).

Previously used versions of the software won't install on any computer. See a summary of hardware requirements at the following site:

http://resources.arcgis.com/content/arcgisdesktop/10.0/arcgis-desktop-system-requirements

Instead of downloading the software from the ESRI website, you can obtain a 1 year-licensed Education Edition of the software at the ArcInfo level of functionality from your instructors. This software can only be used for education purposes.

Reference Books: (not required but useful)

** indicates that pdf of document is available on Blackboard > Weekly Materials > All Weeks

Brewer, Cynthia A. 2005. *Designing Better Maps – A Guide for GIS Users*, ESRI Press, Redlands, CA. ISBN: 9781589480896

ESRI Staff. 2004. *Understanding Map Projections*. ESRI Press, Redlands CA.
** filename: Understanding_Map_Projections.pdf, ESRI Staff, 2004.

What is ArcGIS. ESRI Press. Redlands CA.
** filename: What_Is_ArcGIS.pdf

Maher, Margaret M., 2010. *Lining Up Data in ArcGIS.* ESRI Press, Redlands, CA. ISBN: 978-1589482494
An excellent guide for understanding map projections in ArcGIS.

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

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

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; fertile place for ideas about your final projects

Important Notes about Data for Course

The lab portions of each class may require you to access three types of exercise data sets. These data will not be installed on the lab computers. You will have to bring it with you to class, copy them from Blackboard, or copy the needed files from another classmate during class. To do this **you will have to acquire an USB flash drive capable of holding at least 1 Gb of data .**

Not counting the data you will compile and use for your final projects, there are three different data sets you will need to load on to your USB flash drive as the course proceeds.

1. The first supports the exercises in *Getting to Know ArcGIS*. **We expect you to work through all the exercises for the chapters assigned in this book before the date the specific topics are discussed.**

There are two methods to getting these data:

A. You could install the exercise data from the data CD contained in *Getting to Know ArcGIS* onto your personal computer (following instructions starting on page 574 of that text) and then load it on to your USB flash drive; OR

B. Download the GTKArcGIS 10 exercise data from Blackboard.

2. Data for Class Exercises. These data will appear on the course's Blackboard site as they are needed in the course. Refer to the class schedule to understand what data sets are needed by class dates. **You would be wise to set up your workspace for each class exercise prior to the class where that exercise will be used.** We will define workspace during the first weeks of the course.
3. Data for Extra Exercises. These data will appear on the course's Blackboard site as they are needed in the course. Refer to the class schedule to understand what data sets are needed by class dates.

Schedule

The schedule appears on Blackboard and is attached here. Updates will appear on Blackboard so keep looking and watch for the revision date on the upper right corner of the schedule. Also included is a schedule for due dates and re-do due dates for each of the extra exercises.

Blackboard

The course's Blackboard site is an important resource. In addition to the exercise data and basic information about the course, the instructors will post supporting materials, short videos on particular GIS tools, and a set of "Da Rules." You should use the discussion board to post questions for the instructors and your classmates, and to answer your classmates' questions.

Working Together

The instructors believe that it is easier to comprehend and absorb the course content if you work with partners. We strongly urge you to work with your classmates both in the class/lab as well as outside of class. It is easy to get stuck in the logic of GIS operations. Partners should be able to push their way through what otherwise might be very frustrating challenges.
BUT A CAUTION: It must be evident to the instructors that the exercises you hand in are your own work. The point here is to work together to figure out how to do the exercises but *do them on your own.*

Food and Drink and Cell Phones in the Lab

ACCC is **very** adamant about keeping food and drink out of lab. The penalties are stiff (loss of use of your netID). Keep bottles of water, munchies or whatever in your bags. If you need to take care of thirst or hunger, get up and go out to hall.

Please turn off your cell phones. Should one be audible during class, you may be asked to leave class for that afternoon or evening --- attendance points will be deducted.

16 August 2011