

PA465 Geographic Information Systems for Public Managers – Fall 2010

Instructors and Contact Information

William (Max) Dieber (maxdbr@uic.edu)

CUPPAH B-13 most afternoons but email or phone before visiting

Office phone is 312-413-8435

Virtual office hours (time when Max will be online to respond rapidly to questions) are Tuesday and Thursday evenings from 7 to 9.

Max is a Lecturer in the Urban Planning and Policy Department, the College of Urban Planning and Public Affairs, University of Illinois at Chicago. He also serves as the Co-Director of the Urban Data Visualization Lab. Prior to arriving at UIC in 2004, he was the Director of Research Services at the Northeastern Illinois Planning Commission.

Sarah Barr (sbarr3@uic.edu)

CUPPAH B-15 (Urban Data Visualization Lab) on Tuesday afternoons but email or phone before visiting

Urban Data Visualization Lab phone number is 312-996-3860

Virtual office hours (time when Sarah will be online to respond rapidly to questions) are Thursdays 3 to 5.

Sarah is an Adjunct Faculty member in the Urban Planning and Policy Department, the College of Urban Planning and Public Affairs, University of Illinois at Chicago. She is a MUPP 2008 and is the Principal of Joins+Relate Consulting, a firm focused on spatial analysis for governments and non-profits.

Note that the instructors routinely will be monitoring the discussion board and email. The times shown above are the scheduled times we will be online but not the only times. You can also email us to “make an appointment” to meet in the “virtual office.”

Course Introduction

Welcome to PA465 Geographic Information Systems for Public Managers. This is a **4 credit hour** course. You will spend approximately **12 - 15 hours** a week working on the

course; however, the time commitment will vary depending on your input, needs, and personal study habits. Students are required to log on to the course a minimum of **4 times a week**, but as discussions develop, you will probably log on more often.

Course Objectives

There are two basic objectives to this course. First, students will be introduced to some of the tools and functions used by Geographic Information System (GIS) technicians. This introduction, with the time available in a semester, is just a scratch on the surface of the full functionality of GIS. Second, students will be able to place GIS in a public setting and understand several of the important concerns in GIS management. IT management issues are assumed to be the focus of other courses.

At the end of this course, students should not expect to become proficient GIS technicians, capable of answering questions using GIS. Other classes in the College of Urban Planning and Public Affairs – UPP461 and UPP462 – are designed for that purpose. Instead, students should learn how to ask important GIS questions of the public employees they may manage in the future.

In this course students will:

- Understand the problem of maintaining a GIS program in a public setting
- Gain a basic understanding of the mapping and spatial analysis capabilities of a GIS
- Focus on GIS project management issues such as documentation and map design for communication
- Build a GIS project requirements plan

Course Structure

The material is organized into nine modules in three different groups: Introduction to Course; Using ArcGIS; and, GIS Management Concerns. The modules are listed below with approximate dates.

Group A: Introduction to Course

Module 1: Welcome to Course; 8/23 to 8/27

Module 2: GIS in the Public Setting; 8/28 to 9/8

Group B: Using ArcGIS

Module 3: GIS Basics; 9/9 to 9/19

Module 4A: GIS Functions and Tools – Getting to Know Your Data; 9/20 to 10/3

Module 4B: GIS Functions and Tools – Making New Data; 10/4 to 10/22

Module 5: Finding Data; 10/23 to 10/29

Module 6: Map Layout and Design; 10/30 to 11/11

Group C: GIS Management Concerns

Module 7: Cost-Benefit of GIS and GIS Legal Concerns 11/12 to 11/19

Module 8: A GIS Project Requirements Plan; 11/20 to 12/3

See the Calendar in the Course Syllabus content area on Blackboard for due dates for the class activities and assignments.

Required Textbooks

Ormsby, Tim et al. *Getting to Know ArcGIS Desktop – Updated for ArcGIS 9.3*. 2nd Edition, 2008. ESRI Press (ISBN 978-1-58948-210-4). Used copy is OK.

Croswell, Peter. *The GIS Management Handbook*. 2009, Kessey Dewitt Publications (ISBN 978-0-9824093-0-5). Not sure you can find a used copy but if so, go for it!

Required Software

The instructors will provide you with a DVD containing ArcGIS/ArcEditor 9.3.1. You will be able to install this software on your own computer and use it for 1 year before the license expires. Use is limited to educational purposes only. The technical requirements of your computer are as follows:

Windows 2000 Professional, Windows XP, Windows Server 2003, Windows Server 2008, Windows Vista, or Windows 7

1.6 GHz or higher; Intel Core Duo, Pentium 4 or Xeon processors

1 GB RAM minimum; 2 GB or higher recommended

2.4 GB free disc space

Microsoft Internet Explorer 6.0 or higher; Broadband (DSL, cable modem, or satellite)

DVD drive

This software only operates on the Windows operating system. If you have a Mac, all is not lost. Please check out the Urban Data Visualization Laboratory website <http://www.uic.edu/cuppa/udv/GIS/ArcGISonMac200911.pdf>

If you are going to be on campus, please email Max (maxdbr@uic.edu) to arrange a time you can come to his office (CUPPAH, B-13) to pick up this software. If you are not going to be on campus, email him to let him know where to send the software. He will get it to you prior to the beginning of classes in the fall.

In addition to the ArcGIS software you will need Word, PowerPoint, and Excel (if you will be using the 2010 versions of the Microsoft Office Suite, please save into 2007 or 2003 versions before submitting outputs to instructors).

To view the videos on Blackboard, you will need a reasonably current version of Adobe Flash Player. Version 10.1 can be downloaded from www.adobe.com/ at no cost.

Other Materials

Readings or links to readings other than those in textbook will be provided on Blackboard. Key documents will be available to you in E-Reserves.

It is highly recommended that you build and maintain workspace for this course on a flash drive with a minimum capacity of 2GB.

Course Expectations

If you expect an online course will be easier than a traditional face to face classroom course, you will be disappointed. The only thing easier about this class is that you can be fully involved without traveling to a central location. As you will soon see, however, full involvement means maintenance of a schedule and engagement with your fellow students. If you know now at the beginning of the course that, for whatever reason, you will be unable to sustain engagement in the course work, we recommend that you drop the class.

The Internet has enabled the creation of a virtual classroom by which people are unconstrained by time and space. While this affords many benefits, there are several drawbacks.

Communication effectiveness. The first drawback is that the ability to communicate with maximum effectiveness is lost on line. E-mail messages do not carry as much information as face-to-face conversations. Overcoming this requires some skill in reading and writing, making a special effort to be clear and unambiguous. The way to do this is during the editing process to put one's self in the place of the reader. A benefit of the Internet is the ability to communicate asynchronously. People can carry on conversations at a distance at different times.

Adult learners. Adult learners have the characteristics of volunteers who have a specific purpose for their learning. For example: to complete an unfinished degree or achieve some goal such as a career change, promotion, or new set of responsibilities. For that

reason adult learners are well-suited to distance learning. They learn best on their own. And so, because of that and because of time and distance, the role of the instructor is different—more of a quality control engineer than a teacher. Adult learners learn best not by passively absorbing a body of information but by actively using information to complete a task or solve a problem. As the learner solves a problem, he or she acquires (learns!) the information. But note: in this course, you often will be working in collaboration with fellow students.

Time. A benefit of online learning is that travel time can be reduced to zero. But, an online course can be time-consuming! Students should be sure to set aside enough time to complete the required work. It would be a mistake to try and fit the course into an already busy schedule. Reading the assignments, watching the videos, searching for information, communicating with members and just plain thinking takes time.

Computer skills. Unless one's computer skills are sharp, it is worth setting aside extra time to learn how to navigate through links, pages, clicks, and so forth. Giving one's self time to practice or asking a colleague for a demonstration is a good investment of time and will prevent frustration later on. We will be making heavy use of Blackboard (Version 9) so take the time early in the course to become acquainted with its functions. In the left pane of the PA465 Blackboard site, you will find a link entitled "Support Site." Following that link can help you understand the Blackboard functions.

This course will move along at a fairly rapid pace. If you have problems with any of the topics along the way or if something in your real life prevents full involvement, contact the instructors (maxdbr@uic.edu or sbarr3@uic.edu) immediately. We want you to be successful in the class and we will do whatever we can to insure that.

General Guidelines for Student Assessment

The assessment guidelines provided here are generic. Additional detail, if warranted, will be provided in the descriptions of each activity and exercise.

Course Participation

Students must log into the Blackboard site at least 4 times per week. Over the entire course, doing so is worth 10 points. A week will extend from Monday through Sunday.

In group efforts, all students in the group will get the same scores. It is, of course, assumed that in group activities and exercises, all members of a group are participating. Near the end of the semester, you will be asked to email the instructors with (a) an assessment of your own participation in your group, and (b) an identification of the member or members of your group who contributed significantly to the group products. Based upon these confidential emails, the instructors will assign up to 3 bonus points for individual participation in the group.

Activities and Exercises

Module Activity Rubric: Assessment of Initial Answer to Activities (2 points)

Initial submittals revealing the depth of your understanding of the purpose of the activity and which provide explanation for your correct answers will earn the highest scores. Successful completion includes following instructions relevant to each activity. Such instructions could include size of submittal (word limitations, for example), requested page orientation, and guidelines for transmittal to instructors. 1 point will be deducted if the specific instructions are not followed. It is important to use Standard English and to avoid the variety of common texting abbreviations.

1 point will be deducted for activity postings submitted late but within 2 days of the due date. 2 points will be deducted for postings that are more than 2 days late.

Module Activity Rubric: Assessment of Responses to Activity Postings of Other Students (2 points)

For many activities you will be asked to respond to the initial postings of at least two other classmates. Responses to postings can earn a maximum of 2 points. To earn the maximum, students must provide meaningful responses. A “meaningful” response could be an observation or a question but it must be more than just “wow” or “that’s nice” or “me, too” or “please explain” or some other similar comment showing no effort. No points will be earned for response postings after the due date.

Module Assignment Rubric: Assessment of Course Exercises (variable points – see “Assignment Scoring.xls” in Course Syllabus content area on Blackboard)

The exercises provide a significant opportunity for you to demonstrate your grasp of much of the course content. A successful submittal will demonstrate, not only an understanding of the concepts focused upon in the exercise but also your care in following the instructions. The detailed instructions associated with each Course Exercise will list the key concepts. Failure to demonstrate the meaning of the concept or the use of the tool application will result in a deduction of points. Many exercises build upon knowledge gained in earlier exercises of modules. These also will be assessed.

Many exercises require the submittal of a project log. The project logs ARE REALLY IMPORTANT for a variety of reasons (see Resources in the Module 3 content area on Blackboard). For the purposes of grading, the logs enable us to understand how you approached or completed the requested tasks. As a result, failure to submit a log that provides adequate detail will result in the deduction of points – and these could be significant if we cannot figure out how you got your answers.

Carelessness in preparation or transmittal of the assignment will also result in a deduction of points. As with the activities, it is important to use standard English and avoid common texting abbreviations.

1 point will be subtracted for assignments that are submitted late, but prior to instructor responses (up to 2 days after the due date. 2 points will be deducted for later submittals.

The allocation of points across the entire course can be found in “Assignment_Scoring.xls” in the Course Syllabus content area on Blackboard. These are summarized below. Note that participation including your responses to the postings of others is weighted heavily. This is because participation is at the core of a successful online class.

	Percent of Grade
Participation Including Responses	27 %
Activities Excluding Responses	18 %
Course Exercises	55%
Total	100 %

Course Communication

Daily Contact

Daily contact should be via the discussion forums. Email can be used when it is unnecessary or inappropriate for all students in the class to see the message or assignment.

Course Questions

Questions pertaining to the course should be posted in the course’s Course Question discussion forum. Posting questions here allows everyone to benefit from the answer. If you have a question, most likely, someone else is thinking the same thing. Anyone submitting questions via email will only be directed to resubmit the question here for answering. Also, participants should not hesitate to answer questions posed by peers if they know the answers and the instructor has not yet responded. This not only expedites the process, but it also encourages peer interaction and support.

Personal Questions

Questions of a personal nature should be emailed to the instructors

Emergencies

Please use the instructors' email addresses or work phone numbers for emergencies that will take you away from the course.

Discussion Forum

The discussion forum is the heart of any online course. It is where you will submit many of your assignments, and where you will discuss your work with your classmates. Other than the discussion forum set up for group assignments, all forums are public. Therefore, whatever is posted can be seen by everyone in the course. If you want to send a private message, use e-mail.

Synchronous Meetings

Occasionally, the instructor may want to meet synchronously with an individual, group, or class. Participants may also want an alternative way to meet synchronously with each other for group projects, problem solving, etc. There are online options available to use but the instructors to this point are not impressed by the reliability of these vehicles. As we learn more, we will let you know. As a result, it may be necessary to hold a face-to-face class or two as the semester proceeds. If such sessions are needed and if you are unable to attend, we will find a way so you do not miss out on anything.

Telephone

The telephone is still sometimes the most effective mode for troubleshooting problems related to the course. The instructors' phone numbers, virtual office hour times, and other contact information can be found by clicking in the Course Syllabus content area on Blackboard.

University of Illinois Policies Related to On-Line Classes (Derived from U of I Global Campus Materials):**Netiquette**

In any social interaction, certain rules of etiquette are expected and contribute to more enjoyable and productive communication. The following tips for interacting online in email and/or discussion board messages are adapted from guidelines originally compiled by Chuq Von Rospach and Gene Spafford.

- Remember that the person receiving your message is someone like you, someone who deserves and appreciates courtesy and respect.

- Be brief; succinct, thoughtful messages have the greatest impact.
- Your messages reflect on YOU; take time to make sure that you are proud of their form and content.
- Use descriptive subject headings in e-mail messages.
- Think about your audience and the relevance of your messages.
- Be careful with humor and sarcasm; without the voice inflections and body language of face-to-face communication, Internet messages can be easily misinterpreted.
- When making follow-up comments, summarize the parts of the message to which you are responding.
- Avoid repeating what has already been said; needless repetition is ineffective communication.
- Cite appropriate references whenever using someone else's ideas, thoughts, or words.

Peer Feedback

This course is designed along the principles of synergy and collaborative learning. Therefore, it is important that all students understand how to provide quality feedback to their peers. Here are a few tips for providing positive, constructive and useful feedback to peers:

- Be empathetic and remember that this environment is a safe place for making mistakes.
- Use nonjudgmental language and phrases that do not attack an individual. One way of doing this is to ask the individual to discuss the process for making her/his final decision.
- Use specific questions, examples and research as a way of making your point.
- Make your feedback useful by providing suggestions that the individual can understand and use to improve her/his work.

Academic Honesty

The link to UIC policy is provided below:

- UIC <http://www.uic.edu/ucatalog/GR.shtml#qa.html>

Sexual Harassment

Learning is best achieved in an environment of mutual respect and trust. Even though this is an online class, sexual harassment can, nonetheless, occur. Such conduct will not be tolerated in this class, and victims are encouraged to report any unwelcome sexual advances to appropriate school authorities.

Diversity

Students and instructors from diverse backgrounds and perspectives will be well served by this course; and the diversity that they bring to the class should be viewed and used as both a resource and a strength. The selected materials and learning activities are respectful of diversity, be it gender, race, socioeconomic status, culture, linguistic background, religion, sexual orientation, ethnicity, age, physical ability, perspective or any other such characteristic.

Special Needs

In accordance with university policy, students with a documented disability for which special arrangements or accommodations may be needed should contact their instructor and/or the office of Student Services (866 - 896 - 3939) at their earliest convenience to discuss how their educational needs can best be met.