GARP 0244-001 Introduction to GIS (online, 3 credits)

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                          Office Hours (in person):   MWF   12:00 to 13:00
                          Office Hours (online)   :   W   20:00 to 22:00

This course provides you with the fundamentals of GIS and digital mapping. You will learn basic GIS skills and the structure of geospatial databases necessary to create a GIS, using the ArcGIS 9.3.1 suite of software applications. The goal of this course is to understand GIS as a useful and flexible tool that you can use to address and solve a wide range of everyday 'geographic' questions and problems. We will also learn how to export your GIS maps into Google Earth.

This course is suitable for a wide variety of disciplines: Regional Planning, Environmental Science, Criminal Justice, Business and Management, Sociology, History, etc.

Please note: **Online learning is different from the traditional face-to-face learning that you may be used to. Please consider the following 'big-picture' aspects of online learning:**

1. You have to be highly self-motivated and self-disciplined to learn online. If you have difficulties motivating yourself, then online learning may not be the best choice for you.
2. You have to be able to deal with technical challenges. I don't expect you to know everything, but to use the available resources to solve problems on your own.
3. You can learn on your own schedule, but please realize there are firm deadlines for the weekly assignments and projects. Good time management and organization skills are therefore crucial for success.
4. You have to be proactive in your learning – I cannot 'see' you struggling with the content or the assignments – you need to ask the questions.
5. You need to collaborate with your fellow students in class, using the online discussion forums, chat rooms, Who Online?, etc.

Please note: **Each week builds the skills and knowledge needed for the next week and it is therefore critical for success to keep up with the weekly course modules. You cannot 'skip' a weekly assignment in this course!**

1) Prerequisites

None, but robust computer and statistical skills are absolutely necessary to be successful in this course (e.g. knowledge of Microsoft Excel) – please consult with me if you have any concerns. I will not be teaching basic computer skills!
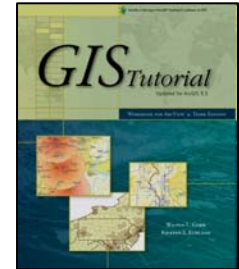
- See Section 3 (Computer Access and Knowledge) for more detailed information about the required computer access and knowledge.
- For some, taking a course such as MGMT 0107 *Software Applications* before taking GARP 0244 is a good strategy. Note: MGMT 0107 *Software Applications* is also a requirement for the GIS Minor.
- Note: this course a prerequisite for GARP0344 (Advanced Geographic Information Systems, Spring 2010 semester).

> *Please note:* **This is a difficult and time-consuming elective course. Do NOT consider this course as an easy and convenient option to fill-out your schedule!**

2) Required Course Resources

2.1) Textbook
GIS Tutorial: Workbook for ArcView 9 (3rd Edition), W.L. Gorr and K.S. Kurland
ISBN 978-1589482050, 434 pp, ESRI Press August 2008

This excellent tutorial/textbook includes a series of chapters, exercises, and assignments to provoke critical thinking and develop quantitative problem-solving skills using a GIS.

> *Please note:* **This is the 3rd edition of this textbook, updated for ArcGIS 9.3.1. Do NOT buy a previous edition or used copy of this book – the software and the exercises will NOT work with the current version of the software.**

The GIS Tutorial includes one CD and one DVD. The CD contains the exercise data, the DVD contains a free 180-day fully-functional version of ArcGIS 9.3.1. The data and software are provided for you in the computer labs on campus (Wilson and Bates), but you should install them on your personal computer at home. For more information:
http://esripress.esri.com/display/index.cfm?fuseaction=display&websiteID=144&moduleID=0

2.2) A dedicated USB flash drive for this course
A dedicated USB flash drive is required for this class (in order to save your data, exercises, assignments, and GIS projects). Required size: 2GB or greater; approximate cost: $15 and up.

2.3) Access to a reliable and modern PC
This resource should be obvious: GIS is a software application and we will be using PLATO as our online learning environment. All PCs in the WSC campus computer labs in Wilson and Bates Hall have the required software installed. See Section 3 (Computer Access and Knowledge) for more detailed information about the required computer access and knowledge.

3) Computer Access and Knowledge

All PCs in the campus computer labs in Wilson and Bates Hall have all the required software and exercise data installed. Before the semester starts, please make sure that you and your computer are ready for online learning. Visit the following website to learn "how to login" to PLATO:

http://www.wsc.ma.edu/prospective-students/academics/academic-resources/online-learning/plato-login/

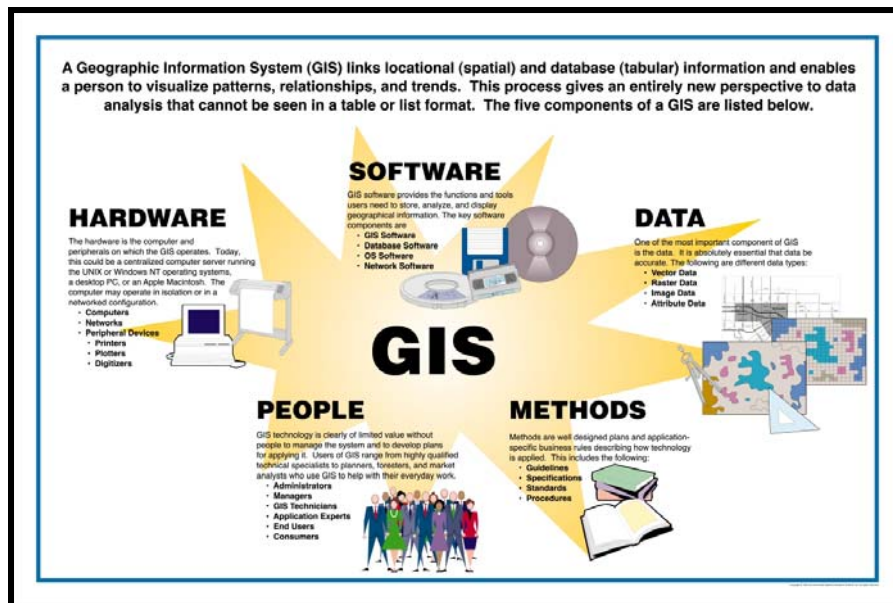**Computer Literacy Requirements – Please ask yourself the following ten questions:**
1) Do I have a working Westfield State College computer account?
2) Do I know how to log onto the Westfield State College network from my dorm room and from off-campus?
3) Do I have a reliable and modern computer? This computer must be a PC running Microsoft Windows 7, XP, 2000, or Vista. The ArcGIS software will NOT run on a Mac unless you are an expert Mac user!

4) Do I know the basics about my computer and its operating system? For example: Use of USB flash drives, creating/copying files/folders, etc. I will not be teaching basic computer skills.
5) Do I have reliable high-speed internet access for online learning? If you cannot get access to high-speed internet you should use the campus computer labs to do your work.
6) Do I know how to send and receive Email attachments? This question applies to regular email, the PLATO Mail Tool, the PLATO Chat Rooms, and the PLATO discussion forums.
7) Do I know how to download files from a website and unzip them if needed?
8) Do I know the basics of Microsoft Excel and Microsoft Word? You must have access to these two programs.
9) Do I know how to download files and plug-ins for my web browser? And install them from the web if needed – for example a flash player plug-into view *.swf files?
10) Do I use Mozilla Firefox as my web browser? http://www.mozilla.com/en-US/
You have to use Firefox as your web browser for this course and understand what you use for firewalls, pop-up blockers, and spam software. You must know how to disable some of the above software if it interferes with the PLATO online learning environment.

*If you have answered No to any of the above questions…***You should consider taking a course such as MGMT 0107 Software Applications before taking GARP 0244. Note: MGMT 0107 Software Applications is also a requirement for the GIS Minor.**

Please realize that technical issues will come up. You should be able to carry on an educated conversation about your computer and your software with the people at the IT and CIT HELP desk if you do encounter problems.

Please note: **It is your responsibility to setup your personal computer and Internet connection (but help and support are available from the campus IT folks).**

Any Questions? Contact me anytime at cbraun@wsc.ma.edu