

**(CIV, ENV, GIS) K146 - Introduction to GIS
Fall 2012**

Tentative Course Syllabus – Subject to Change
Meeting Day/Time: Lecture: Monday, 6:16 – 7:55 pm Room D230
Lab: Monday 8:11 – 9:01 pm, Friday 1:00 – 1:50 pm Room D230

Course Instructor: Bruce Gregoire Email: bgregoire@qvcc.commnet.edu
Office Hours: Monday 5:00 – 6:00 pm and by appointment

Friday Lab Instructor: Diba Khan-Bureau Email: DKhan-Bureau@trcc.commnet.edu

Required Text

Ornsby, Napoleon, Burke, Groessl, and Bowden. 2010. Getting to Know ArcGIS Desktop (for ArcGIS 10). ESRI Press; Redlands, California.

You will need the required text and Data disk for each class in order to complete the assignments.

****A minimum 2 gb USB flash drive is STRONGLY recommended for this course.**

Learning Objectives

- Become familiar with the utilization of ArcGIS 10
- Become comfortable with reading and interpreting maps
- Create detailed, meaningful maps
- Create and understand a geodatabase
- Understand the core functionality of ArcGIS

Course Structure

This course is broken into two sections (lecture and lab). However, I have structured this course such that each class involves an introduction to a topic that will be followed by an assignment or exercise that utilizes ArcGIS.

The first half of the semester provides an introduction to ArcMap and ArcCatalog and basic map making. The second half considers more specific tools that can be performed in ArcMap and ArcCatalog that will allow you to manipulate and analyze the data of interest.

Most classes includes an assignment(s) to be turned in at the end of the session. **Each student is expected to turn in his/her own work for each assignment.**

Tentative Schedule

The meaning of “tentative”, as used here, means that the schedule outlined below is under terms that are uncertain or not final. In other words, required reading, essays, quizzes/exams, and dates **may** change. However, all changes and variations of the schedule will be discussed in class; thus, class attendance is essential for students and excuses for missed assignments or quizzes/exams will not be accepted.

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Date	Topic
Aug 27, 31	<u>Lecture 1: Introduction to GIS</u> Define GIS, introduce ArcGIS, demonstrate how applicable GIS is in all disciplines. (Chapters 1 and 2) Lab Assignment 1. Exploring Municipal Databases
Sep 3, 7	Labor Day – No Class Sep 3
Sep 10, 14	<u>Lecture 2: GIS Outputs</u> Explore basics of ArcMap and ArcCatalog (Chapters 3 and 4) Lab Assignment 2. Exercises 3a-3c and 4a-4c
Sep 17, 21	<u>Lecture 3: Classifying Features and Rasters</u> Symbolizing and Classifying features and rasters, and labeling features (Chapters 5, 6, and 7) Lab Assignment 3. Exercises 5a-5d 6a-6d, and 7a-7c
Sep 24, 28	<u>Lecture 4: Choropleth Maps</u> Querying data, Joining and relating tables (Chapters 8 and 9) Lab Assignment 4. Exercises 8a-8c and 9a-9b
Oct 1, 5	<u>Lecture 5: Spatial and Attribute Data</u> Lab Assignment 5. Exploring CT GIS On-line Data, Adding Geospatial Data from a Web Mapping Service (WMS) http://magic.lib.uconn.edu/help/help_WMS.htm
Oct 8, 12	<u>Lecture 6: Geoprocessing Tools</u> Analyzing feature relationships (Chapters 10, 11, 12 and 13) Lab Assignment 6. Exercises 10a-10b, 11a-11d and 12a-12c, and 13a-13b
Oct 15, 19	<u>Lecture 7: Geodatabases</u> Creating and editing data (Chapters 14, 15, 16, and 17) Lab Assignment 7. Exercises, 14a-14c, 15a-15b, 16a-16c, and 17a- 17c
Oct 22, 26	<u>Lecture 8: Map Projections</u> Making choropleth maps, dot density maps, and graphs from U.S. Census data Lab Assignment 8. Using U.S. Census data
Oct 29, Nov 2	<u>Lecture 9: Creating Maps for Presentation</u> Making maps from templates and making maps for presentation (Chapters 18 and 19) Lab Assignment 9. Exercises 18a-18c and 19a-19d
Nov 5, 9	<u>Lecture 10: 3D Analyst</u> Lab Assignment 10. ArcGIS 3D Analyst
Nov 12, 16	Veterans Day – No Class Nov 12
Nov 19, 23	<u>Lecture 11: Model Builder</u> Model Builder (Chapters 20) *****Thanksgiving Recess***** Lab Assignment 11. Exercises 20a-20c ***** No Lab Nov 23*****
Nov 26, 30	<u>Lecture: 12: Digitizing and Editing</u> Creating and editing spatial data by adding a polygon feature class and adding features using heads-up digitizing and spatially adjusting features Lab Assignment 12. Digitizing and adjusting data
Dec 3, 7	<u>Lecture 13: Spatial Analyst</u> Lab Assignment 13. Spatial Analysis
Dec 10, 14	Open Lab
Dec 17	Final Practical

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Fall 2012**

Grading

70% - Class Assignments – Assignments will be exercises from the above text and/or additional supplements that I have provided. These assignments will be performed in class. If the assignment is not completed in class, it is necessary that the assignment be completed on your own. All assignments must be emailed to me in electronic form as a word document (.doc or .docx). In other words, I would like the final maps for each assignment exported from ArcMap as a JPG and imported (copy and paste) into a word document and emailed to me at bgregoire@qvc.comnet.edu. Assignments should be saved as your first initial and last name_assignmentXX_date (example: jsmith_assignment1_091012). If there are any issues for handing in assignments, please let me know as soon as possible.

Lab reports are graded on a scale of 0-10).

5% - Quiz – There will be one quiz within the semester and it will include all that you have been taught at that point in the course.

25% - Final Practical Assignment

Course Grading

Final letter grades for the course generally mean the following percentage of points:

Letter grade	Percentage of points	Percentage range
A	95	93.3 - 96.7
A-	91.65	90.0 – 93.2
B+	88.3	86.7 – 89.9
B	85	83.3 – 86.6
B-	81.65	80.0 – 83.2
C+	78.3	76.7 – 79.9
C	75	73.3 – 76.6
C-	71.65	70.0 – 73.2
D+	68.3	66.7 – 69.9
D	65	63.3 – 66.6
D-	61.65	60.0 – 63.2
F	<60.0	< 60.0

Course Policies

Class Etiquette:

The use of cell phones and personal handheld electronic devices during class detracts from the learning environment for both yourself and your classmates. Please place all cell phones on silent during the class. If you must answer a call, please leave the classroom quietly to do so. During exams and quizzes, please turn in your exam/quiz prior to leaving, as it will be considered complete.

Late/Missed Work: All assignments are due the following week after it has been assigned unless otherwise specified. After this time the assignment will not be accepted and the student will receive a zero.

Attendance: Missing a day of lecture/lab without prior arrangements will not result in a zero for an assignment. However, the student will be solely responsible for learning any missed material and handing in missed assignments. My contact information is provided at the top of this syllabus. If you inform me well in advance of an absence, I will be happy to make appropriate accommodations.

Make-ups: I need adequate notice to schedule make-ups: at least two weeks for normal life situations and at least one day for sudden emergencies. In case of a dire emergency, contact me as soon as you can through email. I reserve the right to ask for documentation of an emergency-related absence, and to deny a make-up in the absence of a clear life-or-death situation.

(CIV, ENV, GIS) K146 - Introduction to GIS
Fall 2012

Important Dates

Add/Drop: The last day to add/drop and obtain partial tuition refund for this course is September 10, 2012.

Withdrawal: The last day to withdrawal from this course is December 10, 2012.

Incomplete: An incomplete must be finished within 60 days of the last day of the Fall 2012 Semester.

Academic Conduct: It is expected that each student will turn in only his or her own work. Violations of the Student Code are taken seriously. This includes copying or sharing answers on tests or individual assignments, plagiarism, or having someone other than yourself do your work. Depending on the act, a student could receive an F grade on the test/assignment, an F grade for the course, or could be suspended or expelled.

Special Needs

Please inform me as soon as possible if you require any accommodations in addition to those provided here.

Counseling and Student Development Services at TRCC:

If you have a question regarding a special learning need that may affect your progress in this course, please contact Student Services, Room A-119 (860-383-5217) as soon as possible. *Please note that I cannot provide special learning accommodations until I receive the necessary paperwork from the college's Office of Counseling and Student Development Services. Accommodations cannot be provided retroactively.*

Available Support Services:

If you need additional assistance for this course, tutors, study skill workshops, and other course assistance can be arranged by contacting the Tutoring and Academic Success Centers, Room C117 (860-892-5713). If you have not yet used the library to obtain information and search scientific articles, you may contact the Library for more training and information (860-885-2346).

Religious Holidays:

Sec. 10a-50. (Formerly Sec. 10-334g). Absence of students due to religious beliefs. No person shall be expelled from or refused admission as a student to an institution of higher education for the reason that he is unable, because the tenets of his religion forbid secular activity on a particular day or days or at a particular time of day, to attend classes or to participate in any examination, study or work requirements on such particular day or days or at such time of day. Any student in an institution of higher education who is unable, because of such reason, to attend classes on a particular day or days or at a particular time of day shall be excused from any examination or any study or work assignments on such particular day or days or at such particular time of day. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school because of such reason an equivalent opportunity to make up any examination, study or work requirements which he has missed because of such absence on any particular day or days or at any particular time of day. No special fees of any kind shall be charged to the student for making available to such student such equivalent opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section. For the purposes of this section, "institution of higher education" shall mean any of the schools comprising the state system of higher education, as defined in section 10a-1. (P.A. 75-367, S. 1.)

KEYS TO SUCCESS

Readings:

To ensure success in the classroom and to take active participation in your learning, each assigned reading should be read prior to the week assigned. Reading the material ahead of time will allow you to gain a familiarity with the concepts prior to learning about the concept in class. This will increase your understanding and allow you to participate by asking questions on the material that you find complex or confusing.

Software:

(CIV, ENV, GIS) K146 - Introduction to GIS
Fall 2012

The “Getting to Know ArcGIS Desktop (for ArcGIS 10)” text book comes with a 180-day free trial download of ArcGIS 10. It is highly recommended that you download the ArcGIS 10 software on your personal computer to aid in completing the assignments.

ArcGIS 10 is installed on the computers in the Open Computer Lab, Room E-112

Attendance:

Although attendance is not mandatory, attendance is necessary to succeed in this course.

Academic Dishonesty:

Plagiarism means using someone else’s statement word-for-word without quotation marks (even if you cite it) or using someone else’s ideas, even if you paraphrase them, without proper attribution of credit through a citation.

Student Code of Conduct: All students should be aware of the guidelines for the Student Code (http://www.trcc.comnet.edu/Div_StudentServices/StudentPrograms/PDF/TRCC-StudentHandbook.pdf) College Policies: Student Conduct and Discipline Policy, a portion of which is repeated below:

Section 3: Expectations for Student Conduct

Consistent with the Student Conduct Philosophy set forth in Section 1 of this Policy, students are expected to:
“2. Demonstrate academic integrity by not engaging in conduct that has as its intent or effect the false representation of a student’s academic performance, including but not limited to: cheating on an examination, collaborating with others in work to be presented, contrary to the stated rules of the course, plagiarizing, including the submission of others’ ideas or papers (whether purchased, borrowed or otherwise obtained) as one’s own, stealing or having unauthorized access to examination or course materials, falsifying records or laboratory or other data, submitting, if contrary to the rules of a course, work previously presented in another course, and knowingly assisting another student in any of the above, including an arrangement whereby any work, classroom performance, examination, or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.”

The penalty for plagiarism on Lab reports is a zero.

The penalty for cheating on a quiz or exam will be a zero on the affected assignment.