

Course title	Former Course number	Section number
GIS Basic	GIS 105	NA

Location or Remote	Meeting Time/Day	Room Number	Meeting Dates
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**Instructor:** Conrad Stanley

**Contact information**

Office hours:

Mon-Sat

Call for appointment

Office phone: (970) 675 -- 8664

E-mail: constanley@juno.com

Remote through "Breeze" by appointment

**Description:**

Introduction to professional grade GIS desktop software, includes introduction to recreation grade GPS.

**Prerequisites:**

- Call for consultation

GIS, a computer information technology, is a demanding field of study. Familiarity with core IT concepts and skills such as directory structure, Internet usage, FTP, login, and hardware compatibility, among other things is expected. Students should anticipate an extensive investment of time and effort in order to be successful in this demanding IT discipline. Like a musician, a GIS operator must practice daily in addition to receiving direct instruction. As such, problem-based projects are a core component of the course.

**Remote attendees:**

**ALL: It is strongly suggested that all learners attending remotely contact the instructor via e-mail and/or phone. The e-mail should include the student's full name, a telephone number that they can be reached at, and the e-mail account they will be using.**

Fully and totally isolated (individual) learners --

All isolated learners must meet the following hardware/software requirements:

- 1.8 GHz processor/512 MB RAM
- 40 plus gigabyte hard drive
- NIC and Internet connectivity (768k+ recommended for video streaming)
- DVD -- R/CD -- RW
- soundcard
- administrator status for loading programs, software, and plug-ins.

The benefits of participating in "real-time" instruction cannot be overstated, and so it is required that students attend live lecture sessions. All fully isolated students are subject to these additional time and travel demands unless auditing the course:

- travel for quarterly tests proctored at an approved location such as a satellite campus library or other impartial entity- 4 days. Students must provide the contact information for the proctor to the GIS-instructor at least 2 days prior to testing.
- Students must purchase a compatible GPS unit for use in the course.
- Student will receive a service packet containing datasets, utilities, FTP and "Breeze" access instructions, etc.

It is the student's responsibility to make these arrangements and forward the contact information to the course instructor.

Modus operandi :

Communication in a conference environment is not intuitive for most students or instructors. Because of the many different types of students and the different classroom configurations, certain communication protocols should be observed.

- Off-site students should ascertain whether they have the most recent lecture, i.e. -- PowerPoint, and assignment, i.e. --A#, along with any related data sets that they will need for class. FTP transfers should be completed at least one hour before class.
- The FTP portal to CNCC -- GIS will close, except for special occasions, during class time so as to conserve bandwidth for the broadcast.
- Please try to arrive between five and 10 minutes early so that there will not be mass confusion at login.
- Do not download files, music, or check e-mail during class times.
- Generally, the first five to 10 minutes of class will be an open forum for asking questions and resolving issues.
- Typically after the open forum there will be a pop quiz. Remote lab attendees or isolated students should FTP their answers into the class drop folder immediately after the quiz.
- During lecture, please leave your mic-lock OFF. If you need to get my attention to ask a question, type into the chat window, "question". You may key the mic and ask to stop also, but I'm not sure how this will in fact affect the integrity of the broadcast.
- After lecture, I suggest leaving the microphone off and keying it to ask questions. If a dialog needs to transpire, then lock it on.

Communicating in a conference type environment is difficult at best and I hope that these few suggestions will keep class orderly and allow for everyone to benefit.

#### **Objectives/core topics:**

- Explain GIS theory and describe some applications for its use. Describe basic IT conventions and hardware/software requirements. Define standard GIS data formats, their primary uses, and the need for accurate metadata documentation. Incorporate these various data types, including remotely collected data (event themes) into a map project.
- Demonstrate competency in both feature (vector -- graphic) and attribute manipulation and editing. Demonstrate proficiency with relational databases in record-keeping and analysis. Construct models for simple and complex analyses of vector data and its associated tabular records through such methods as query (SQL), buffer, and overlay.
- Define the essential elements of geographic and projected coordinate systems; identify and alter data set coordinate projection.

- Construct and present a map document that is appropriately symbolized and annotated. The presented document should also contain additional explanatory text, tables, or charts, and aesthetic graphic artwork.

**Required\*\*\* and/or suggested materials:**

texts: (two required) available online  
 “Getting to Know ArcGIS Desktop” ESRI press version 9.2 (180 day trial)  
 “GIS Fundamentals” 3<sup>rd</sup> ed. Bolstad (used in all GIS courses at CNCC)  
 email account  
 miscellaneous:  
 USB Mass storage device \*\*\*  
 three ring binder suggested for handouts  
 Spiral notebook, writing utensils, etc..\*\*\*  
 Service packet – sent to you

**Grading criteria:**

Grades will be based upon quizzes, tests, assignments, and projects. Typical point values are:

Homework/short assignments	< 40 points (typically)
Quizzes	3 -- 10 points
Tests and Practicums	100 points
Projects	50 -- 150 (each)

Your grade is based upon the percentage of total points. Grading scale categories:

>= 90            A  
 80 - < 90        B  
 70 - < 80        C  
 60 - < 70        D  
 < 60              F

- Quizzes are unannounced and expect two assignments per week. Tests and practicum assessments are based upon blocks of similar material and will be announced no less than one week in advance. These must be proctored!! Every assignment may not be explicitly checked by the instructor. If you're having difficulties seek assistance during office hours.

- Re: electronic submissions

Traditional students:

Backup all of your work to your personal folder lest it be erased or altered. Using ArcCatalog only, place the digital file, e.g. -- map document, shapefile, etc., into the class drop at path:

XXXXXXXXXXXXXXXXXXXX

Name the file using the following convention: "last name\_assignment initials". You cannot retrieve dropped files!!

Do not use punctuation or leave spaces in filenames or folder names.

Lab groups and totally isolated learners:

You will receive explicit instructions for submitting work via FTP using convention above at:

ftp://www.cncc-gis.net/XXXX

- You are responsible for your own work. Cheating and plagiarism can result in dismissal from class and a grade of "F." for the course. Quizzes cannot be made up. Tests given during an unexcused absence must be made up before the next test and will incur a penalty of 10% per day. This policy applies to due- assignments also. Assignments due during excused absence are allowed to be submitted after you return. The submission period is based upon the number of days absent. A doctor's excuse will be required to submit work after three consecutive absences. In no event will assignments, tests, or projects be accepted after the next unit test.