THREE RIVERS COMMUNITY COLLEGE

ARC K280 TRENDS & ISSUES, "*GIS USE IN ARCHITECTURE*"

Tuesday & Thursday 4:00 - 5:15pm

Instructor: Professor Mark Comeau, (885-2387,), email mcomeau@trcc.commnet.edu

Grade: Projects 80% In-class Exams 10% Participation 10%

Course Description:
This "topics" course draws together the many elements of architectural graphic representation and expands the use and abilities of spatial issues using modern application and software. Combining ArcGIS, CAD, SketchUp, and database applications, students will create problem solutions that utilize complex multi-variable analysis while being challenged to communicate such solutions as the architecture profession traditionally has – creating easily understood graphics and modeling.

Method: Demonstration Accompanied by Lecture and Project-based Exercises

Text: **Getting to Know ArcGIS Desktop, ESRI, (Students procure through Amazon)**
*(**Note:** The course's weekly subjects follow the book's layout in sequential chapter order. Please read corresponding subject-chapter material prior to each class.)*

Week 1 **Over-view & Content Mapping**
(8/28) Review of course content & approach
Homework: Map your neighborhood (to be discussed)

Week 2 **Historical Perspectives**
(9/04) Cartographic Development
Homework: Map use discovery (Rubric provided)

Week 3 **Modern Capabilities**
(9/11) Representation & Geo-analyzing
Homework: Where's the wealth? (Rubric provided)

Week 4 **Intro to ArcGIS Basics**
(9/18) Data Overview, Data Sources
Homework: Making 1st GIS Map (Rubric Provided)

Week 5 **Intro to ArcGIS Basics Cont'd**
(9/25) Metadata, GIS Data Attributes
Homework: Building a Data Base

Week 6 **ArcGIS Maps**
(10/02) Cloropleth & Categorical Maps
Homework: Making 1st GIS Map (Rubric Provided)

Week 7 **ArcGIS Maps**
(10/09) Filtering, Querying, Labeling
Homework: Analyzing Data (Rubric Provided)

Week 8 **ArcGIS Maps**
(10/16) How Maps "Lie"
Homework: The Map Fallacy (Rubric Provided)

Week 9 **Architectural Application Unit 1**
(10/23) Acquiring Site Data
Homework: Micro - Boundary, Zone, Bulk Requirements

Week 10 **Architectural Application Unit 1 Cont'd**
(10/30) Acquiring Site Data
Homework: Macro - affiliated neighborhood components

Week 11 **Architectural Application Unit 2**
(11/06) Site Analysis
Homework: Mapping Natural Components

Week 12 **Architectural Application Unit 2 Cont'd**
(11/13) Site Analysis
Homework: Mapping Cultural Components

Week 13 **Thanksgiving Break**
(11/20) Schedule Float

Week 14 **Architectural Application Unit 3**
(11/27) Capstone Project (TBA)
Homework: Data Accumulation

Week 15 **Architectural Application Unit 3 Cont'd**
(12/04) Capstone Project
Homework: Modeling

Week 16 **Final Project**
(12/11) Presentations

Trends & Issues Course Outcomes:

- Attain working knowledge of ArcGIS;
- Attain understanding of modern spatial representation systems and uses;
- Demonstrate an understanding of spatial analysis;
- Be able to identify the output "need" and generate solution components;
- Demonstrate the ability to identify and solve spatial problems;
- Demonstrate the ability to assemble and synthesize data sets;
- Demonstrate the ability to use ArcGIS and other software to model creative solutions.

ACADEMIC INTEGRITY

Any and all exams, papers or reports submitted by you and that bears your name is presumed to be your own original work that has not previously been submitted for credit in another course unless you obtain prior written approval to do so from your professor.

In all of your assignments, including homework or drafts of papers, you may use words or ideas written by other individuals in publications, web sites, or other sources but only with proper attribution. "Proper attribution" means that you have fully identified the original source and extent of your use of the words or ideas of others that you reproduce in your work for this course, usually in the form of a footnote or parenthesis.

As a general rule, if you are citing from a published source or from a web site and the quotation is short (up to a sentence or two), place it in quotation marks; if you employ a longer passage from a publication or web site, please indent it and use single spacing. In both cases, be sure to cite the original source in a footnote or in parentheses. (See http://www.plagiarism.org/plag_article_how_do_I_cite_sources.html for more information on citing.)

If you are uncertain about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your professor beforehand.

Finally, you should keep in mind that as a member of the Three Rivers Community College community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits.

Be proud of your academic accomplishments and help to protect and promote academic integrity. The consequences of cheating and academic dishonesty may include a formal discipline file, possible loss of financial scholarship or employment opportunities, and denial of admission to a four year college.