

## Course Syllabus

### Geomatics II

#### ENV K260

Instructor: Kevin D. Franklin, MS, PLS  
Email: [kfranklin@trcc.commnet.edu](mailto:kfranklin@trcc.commnet.edu)  
Class Location: D 230 Fridays 8:00 – 10:45  
B 107 Fridays 11:00 – 12:40  
Office Hours: By appointment

#### Registrar's Course Description:

*Geomatics is increasingly used to evaluate the various data models and structures used in the input management analysis and output of geographic data used in the sciences, environmental sciences and engineering and natural resources management. The Geomatics course will offer students further skills required in the study of Geographical Information Systems, GPS, spatial analyzes, surveying, photogrammetry & cartography providing understanding and field experience. Cartography is used in the area pertaining to preserving indigenous lands and documenting water and land rights, urban and transportation planning, wildlife habitat preservation and environmental impact analysis. This course will enable students to apply geomatics skills and knowledge in a growing field. Geomatics can be used to evaluate many issues, but not limited to, natural sciences and the environment. Research and modeling will be essential in the development, design and performance monitoring of a wide variety of spatial data. The Geomatics course will provide students with further knowledge of geographical information systems. Introduction to Geographical Information Systems is the preliminary course for students, which will lead to Geomatics giving the students further understanding of geographical information sciences, GPS, surveying and cartography. The combined courses provide options to obtain work or to continue an education to acquire a certificate, an A.S. or an advanced degree. The Geomatics class supports the new paradigm for a renewed effort in geospatial analyzes for charting and measuring the world.*

#### Required Materials:

- No textbook for this class. Readings will be distributed on an ad hoc basis
- Basic calculator (Texas Instruments TI-30 or similar)
- Bound field book (spiral notebook is fine)
- Basic drafting tools (pencil, compass, scale or ruler)
- Portable digital storage device
- Weather-appropriate clothing and footwear for outdoor labs

#### Grading:

- 3 midterm exams, 10% each
- Assignments, 50% total
- Final Project, 20%

#### Attendance:

Attendance is mandatory. If you need to miss a class, you are still responsible for the lab and lecture content and the assignments. Given the once-per-week meeting schedule, missing multiple (2 or more) class sessions is incompatible with successful completion of the course.

**Schedule:** Please see the tentative lab schedule which follows. Note that the lab schedule is subject to change to accommodate field activities, weather conditions, and other unforeseen events.

**Late Work:** Late work is not accepted without prior approval from the instructor. Students are expected to immediately contact the instructor if they cannot attend an exam or will not be able to turn in an assignment on time to avoid getting a "0".

**Academic Integrity:** Students will be responsible for submitting all assignments and completing all exams independently. Using the work of others without giving proper credit (plagiarism), or academic dishonesty (as defined by the Student Handbook) is unacceptable. After evaluation of the infraction(s) in a manner consistent with the Student Handbook, a grade of "0" may be assigned.

**Lab Policies:** Cell phones and other electronic devices must be kept off and out of sight. No texting is permitted. Students are expected to have a calculator separate from their cell phone. Language and behavior that is disrespectful or disruptive to others is unacceptable. Students should refer to the Student Handbook for additional important school policies.

**Disabilities** – If you have a visible or hidden disability that may require classroom or test taking modifications you are encouraged to contact Student Services for assessment.

**Digication Statement:** All students are required to maintain a learning portfolio in Digication that uses the Three Rivers Template. Through this electronic tool, students can see their own growth in college-wide learning. The student can keep and continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select random works to improve the college experience for all. No names will be attached to the assessment work; it will remain **private and anonymous** for college improvement purposes. The instructor will indicate recommended Digication assignments.

**BOARD OF REGENTS FOR HIGHTER EDUCATION AND CONNECTICUT STATE COLLEGES AND UNIVERSITIES POLICY REGARDING SEXUAL MISCONDUCT REPORTING, SUPPORT SERVICES AND PROCESSES POLICY: Statement of Policy for Public Act No. 14-11: An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus:** "The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence."

**UNITED STATES DEPARTMENT OF EDUCATION AND OFFICE OF CIVIL RIGHTS TITLE IX STATEMENT OF POLICY:** "Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin-in all aspects of a recipient's educational programs and activities."

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Edward A. Derr, the Diversity Officer and Title IX Coordinator:

Edward A. Derr  
Title IX Coordinator and Diversity Officer  
Admissions Welcome Center \* Office A116  
574 New London Turnpike, Norwich CT 06360  
860.215.9255 \* [EDerr@trcc.commnet.edu](mailto:EDerr@trcc.commnet.edu)

**Tentative Schedule:**

<i>January 19, 2018</i>	What is Geomatics, course goals and outcomes, review syllabus, begin project brainstorming
<i>January 26, 2018</i>	Review of critical units, constants, and conversion factors, advancements in measurement tools, calculating the coordinates of a point feature
<i>February 2, 2018</i>	RDBMSs, tables, features, and attributes, UConn Arboretum interactive GIS example
<i>February 9, 2018</i>	Table importing and creation, forestry database design example
<i>February 16, 2018</i>	Presidents' Recess - classes not in session
<i>February 23, 2018</i>	Probability and Statistics, linear regression example, Exam I
<i>March 2, 2018</i>	LIDAR, laser scanners, and contour maps
<i>March 9, 2018</i>	Field Lab 1
<i>March 16, 2018</i>	Spring Break - classes not in session
<i>March 23, 2018</i>	Control points, project and "real-world" datums, navigating to a point feature
<i>March 30, 2018</i>	Day of Reflection - college closed
<i>April 6, 2018</i>	Geographic and Cartesian coordinate systems, coordinate conversion spreadsheet
<i>April 13, 2018</i>	Map projections, remote sensing, Exam II
<i>April 20, 2018</i>	Online sources of geographic data, property boundary research
<i>April 27, 2018</i>	Global navigation and satellite system field applications, data organization and management
<i>May 4, 2018</i>	Field Lab 2
<i>May 11, 2018</i>	Mapper's professional ethics, pathways to jobs and licensure, Exam III