Three Rivers Community College

Survey II –Lab CIV K 251
Syllabus
Fundamentals of Surveying
Spring 2013

Instructor; Donald W. Gerwick, P.E., L.S., CFM

Class Location – B 107;
Saturday (Lab) 8:00 a.m. -10:45

Text; **Elementary Surveying, An Introduction to Geomatics**, 13th or 12th edition
Charles Ghilani & Paul R. Wolf

Required Materials: Field note book, and engineers scale, eraser (not the type on #2 pencils), mechanical or drafting pencils, two triangles, and calculator.

DO NOT Attend labs without all required materials.

On campus Phone Number 860-885-2337
Off campus weekday Phone 860-442-2201
Email dgerwick@trcc.commnet.edu or don@gerwickmereen.com
Office Hours: T 4:15-5:15
Additional Days and Times by Appointment are Available

This course is a continuation of Surveying I and covers boundary location, curves and curved boundary lines, areas, topographic surveys and mapping, connecting traverses, horizontal and vertical alignment of roadways, cross sectioning, profile leveling, and construction staking.

Labs will designed to reflect work being done in lectures as closely as possible.

Learning Outcomes – Students will learn the fundamentals of creating a variety of types of maps and learn all phases of boundary surveys. Students will also learn the process of creating and mathematically solving horizontal and vertical curves as related to survey work. Students will obtain filed data for and create contour mapping, and perform a number of construction stake out exercises.

Lab 1 – Contours (2 Lab Periods); Students will be given spot elevations on 12" x 24" sheets; students will calculate points for the creation of 2' contour intervals.

Lab 2 – Title Search (approx. 2 labs, one in class and one in a Town Clerks Office).
This off site lab will at the Town of Waterford Town Clerk's Office (Connecticut being one of the few States that does not maintain Land Records on a County basis) and is designed to introduce students to the intent and methods of titling search for the purposes

of establishing boundary lines. Students, search for relevant deeds, recorded maps, easements, etc. for a chosen parcel, back to the "root" deed.

Lab 3 - Subdivision (2 Lab Periods) Students will be given a map of a parcel of land, and the subdivision regulations for a particular Town. The students task will be to create a small subdivision of land in conformance with the Subdivision regulations.

Lab 4 - Field Contour Creation – (estimated 3-4 lab periods) As weather permits, to begin an outside topographic lab, students will be assigned a portion of a campus area to set up and collect data for location and elevation of a series of ground shots.

Lab 5 - Topographic Mapping, Hand Method – (estimated 1 lab period) This lab will explore the traditional method of hand plotting the topographic survey. While seldom used any more it gives the beginning student a better understanding of the digital process that is used.

Lab 6 - Digital Topographic Mapping – (estimated 1 lab period)This lab will be held at the office of Gerwick Mereen in Waterford. Students will input their raw data into computers, create triangulated networks (TIN's) and generate computer determined contours from their data.

Lab 7 - Horizontal Curve Stakeout – (estimated 2 labs; one inside lab and one outside lab. Students will develop data for the field stake out of one a horizontal curve. The next lab will consist of the field work to layout the curve on the ground.

Lab8 – Construction Stake out – (estimated 2 labs; one inside lab and one outside lab*) Students will develop data for the field stake out of a hypothetical structure. The next lab will consist of the field work to layout the structure and then field cross check for square corners on the ground.

Remaining Labs – Will be a multi-week lab that will either begin an overall topic plan of the campus. Additional opportunities for real world problems may be substituted at the instructors discretion.

*Students will develop data for the field stake out in the first lab, while the second lab will consist of the field work to layout the data on the ground.

Final Grade – **CIV K25**1 – Lab grade will be based on your average of your lab reports (65%), attendance 25% and you're your field notes 10%.

Lab Grades will be based on the weighted average of assigned lab write ups, lab projects and the students field book. Missed labs generally cannot be made up, and will receive a "0" grade, unless arrangements have been made with the instructor. If students want their field book returned they must turn it in for grading 2 weeks before final grades. All field books are due no later than the last day of classes and will **NOT** be accepted after that. It is the students responsibility to turn in their field books and other work.

Class Attendance is expected, although, while students will not be penalized for non-attendance (with the exception as noted above for labs). It will be the student's responsibility to determine what assignments, or material that may have been missed, and to make arrangements to turn in missed work.

Class Room and Field Lab Policies - Cell phones brought to class shall be off and out of site (no texting). Language and behavior that is disrespectful, or disruptive, to others is unacceptable; Students should refer to their Student Handbook for examples of such behavior as well additional school policies.

Academic Integrity – Unless indicated by specific assignments, by the instructor, for group projects, all work for assignments shall be that of the individual student. Cheating on quizzes or using the work of others without proper credit (plagiarism) for assignments, or other forms of academic dishonesty, as defined by the Student Handbook, is unacceptable. If, after evaluation of the potential infraction(s), consistent with the Student Handbook, a grade of "0" for the assignment may be assigned.

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