

Traditional Surveying Equipment

SURV 131 – 5 Credits/\$400 – May 2010

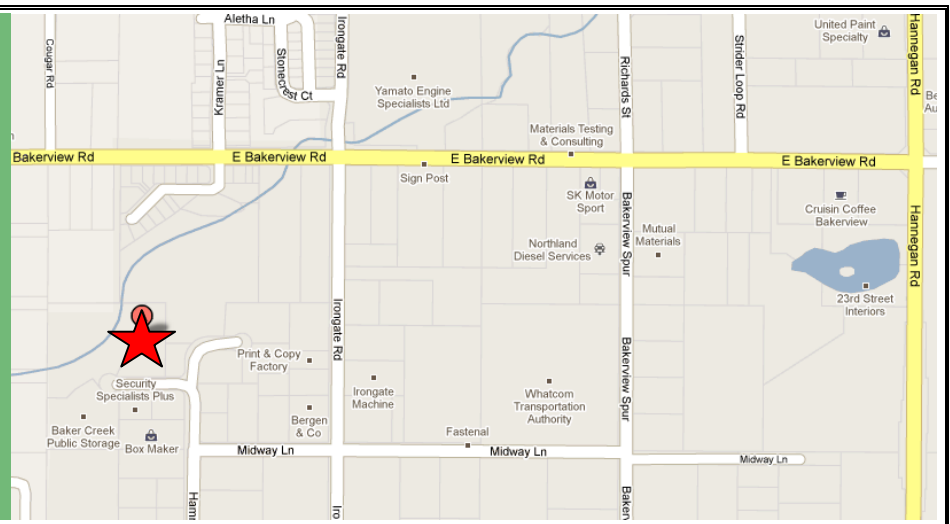


Class Description:

This class provides a hands-on field experience with total station and autolevel surveying equipment based on traditional ground control. Students practice timely total station setup, control orientation, advancing traverse control, sideshots, timely autolevel setup, and level loops.

Location:

**Building Industry Association of
Whatcom County
1650 Baker Creek Place
Bellingham, WA 98226**



Dates and Times:

The class is scheduled to run on **Tuesday and Thursday evenings at 6:00-9:00 PM from May 4th to May 27th**. This provides a total of (8) evening classes to cover the course material. Please see the Class Calendar on the third page.

Registration and Class Capacity:

This 5-credit class is limited to (16) students and costs \$400. Please send your completed registration form and check payable to Washington Engineering Institute to the registration office:

**Washington Engineering Institute
Registration Office
PO Box 483
Custer WA 98240**

School Provided Materials:

- **Survey Equipment:** The school provides the survey equipment necessary for the class with donated equipment time from the local industry. Donated survey equipment time helps keep classes affordable. We must treat the equipment with respect and care to continue coursework opportunities.
- **Hardware:** The school provides a 17" laptop during lecture and lab times.
- **Software:** The school provides the Civil 3D software during lecture and lab times.
- **Lecture Notes:** The school provides lecture handouts as needed.

Student Provided Materials:

- **USB Drive:** Please purchase a 4GB or larger USB drive prior to the first day of class.
- **Personal Computer:** It is highly recommended that students have a personal computer to continue their studies at any time. Students are encouraged to take advantage of the Autodesk Education Community to obtain a student version of Civil 3D while they are registered as a student.
- Positive, motivated, respectful, and helpful classroom character

Instructor

Robert D. Morse, LSIT

Survey Technology Instructor

Experience: 38 years of experience in the private surveying, civil engineering, structural, and forestry industries.

Registration: Land Surveyor in Training, State of Washington License #1071

Education: Bachelor of Science in Industrial Technology, Western Washington University
Associates in Civil Engineering Technology, Everett Community College
Surveying Program, British Columbia Institute of Technology

Format:

Class Structure: Evenings will typically run in one-hour blocks as follows:

6:00 PM – Class setup and first hour

6:50 PM – Break

7:00 PM – Class

7:50 PM – Break

8:00 PM – Class last hour

Final Exam and Grades:

Grades will be determined by attendance character (25%), field book presentation (25%), and class projects (50%).

May 2010 – Traditional Surveying Equipment – SURV 131

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1	2
3	4 Chapter 1 6:00-9:00 PM <u>Land Surveyors Association of Washington (LSAW) – Monthly Meeting:</u> ♦ Extreme Sport Bar and Grill ♦ 4156 Guide Meridian	5	6 Chapter 2 6:00-9:00 PM <u>Class and Equipment Orientation:</u> ♦ Autolevel ♦ Tape and Compass ♦ Field Book Notes	7	8 Optional Lab 12:00-6:00 PM	9
10	11 Chapter 3 6:00-9:00 PM <u>P1 - Level Loop:</u> ♦ Advance an elevation benchmark to your site.	12	13 Chapter 4 6:00-9:00 PM <u>P2 – Grid Topo with Autolevel:</u> ♦ Use you elevation benchmark to conduct a topographic grid survey ♦ Conduct (16) point grid survey ♦ Prepare scaled topographic drawing by mathematic interpolation	14	15 Traverse Lab 12:00-6:00 PM <u>P3 – Compass Traverse:</u> ♦ Set (5) point traverse around building ♦ Conduct tape and compass traverse through points ♦ Conduct compass rule adjustment	16
17	18 Chapter 5 6:00-9:00 PM <u>Total Station Orientation:</u> ♦ Total Station ♦ Turn angles and shoot distances in class	19	20 Chapter 6 6:00-9:00 PM <u>P4 – Total Station Traverse:</u> ♦ Conduct total station traverse through same (5) points ♦ Conduct compass rule adjustment	21	22 Optional lab 12:00-6:00 PM	23
24	25 Chapter 7 6:00-9:00 PM <u>P5 – Site Survey:</u> ♦ Use the traverse control points to survey the building and sidewalks.	26	27 Chapter 8 6:00-9:00 PM <u>P6 – Draw Site Survey</u> ♦ Use plain AutoCAD to draw up the building and sidewalks.	28	29 Optional Lab 12:00-6:00 PM	30



PO Box 483
 Custer WA 98240
admin@weiedu.org
 (360) 739-1428

Class Registration Form 2010 v2.0

Returning students with a Student ID do not need to fill out the gray portions of this form.

Name	
Address	
Phone	
Email	

Class Requested	SURV 131 – Traditional Surveying Equipment
Class Month / Date	May 2010

WAC 490-105-160 – State Licensed School Reporting Requirements:

Student ID #		
SSN #		
Date of Birth		
Gender		
Disability	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Race	<input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/> Hawaiian Native or Pacific Islander <input type="checkbox"/> Hispanic <input type="checkbox"/> White/Caucasian <input type="checkbox"/> Multi-racial <input type="checkbox"/> Other	
Prior Education	<input type="checkbox"/> Less than high school graduation <input type="checkbox"/> GED <input type="checkbox"/> High School Graduate <input type="checkbox"/> Post H.S., no degree or certificate <input type="checkbox"/> Associate Degree <input type="checkbox"/> Bachelor Degree <input type="checkbox"/> Master or Doctorate Degree	GED Year _____ Graduation Year _____ Graduation Year _____ Graduation Year _____ Graduation Year _____
Name of Last School Attended		

Student Signature

Date