

# Civil / Survey CAD Level 1

ENGR 111 – 5 Credits/\$400 – April 2010

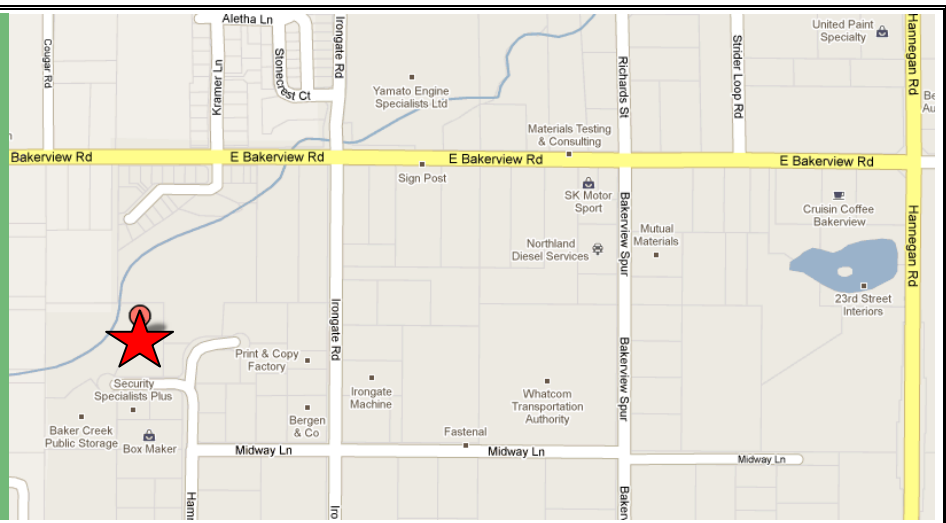


## Class Description:

This is an entry level CAD class for the Civil / Survey professions. Students will learn AutoCAD software by conducting Civil Engineering and Surveying applications. Thus students are learning fundamentals of the profession at the same time as learning CAD. Course material includes site feature mapping, topographic mapping, plan view utilities, and road cross sections.

## 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 April 6<sup>th</sup> to April 29<sup>th</sup>**. 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 (12) students and costs \$400.** Students enrolled in a WEI program of study may begin registration for this class on March 8<sup>th</sup>. Open registration for the class begins on March 15<sup>th</sup>. 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:

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- **Hardware:** The school provides a 17” laptop during lecture and lab times.
- **Software:** The school provides the AutoCAD software during lecture and lab times.
- **Lecture Notes:** The school provides lecture handouts as needed.

## Student Provided Materials:

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- **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 AutoCAD while they are registered as a student.
- Positive, motivated, respectful, and helpful classroom character

# Instructors

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## Marta J Quinlan

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**Experience:** 32 years of private and public experience in civil, environmental, and public works engineering for various projects in Washington, Idaho, Colorado, and Alaska. In addition, Ms. Quinlan has 5 years of Civil Engineering Technology and CAD teaching experience as a full-time and part-time instructor at Bellingham Technical College.

**Education:** Associates of Science in Engineering Technology, Columbia Basin College

## Dave C. Bren, PE, MSCE

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**Experience:** 15 years of experience in the public and private civil engineering industry. Most recent experience was as the Assistant Public Works Director for the City of Blaine. Mr. Bren instructed the Civil Engineering Technology program at Bellingham Technical College from 1997-2006 while continuing to consult in the industry. Mr. Bren continues to consult in the industry while teaching at the Washington Engineering Institute.

**Registration:** Professional Engineer, State of Washington

**Education:** Master of Science in Civil Engineering, University of Washington  
Bachelor of Science in Civil Engineering, University of Washington

## Format:

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**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:

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Students that are not auditing the course and wish to have a transcript grade must conduct the class drawing projects. Grades will be determined by attendance (20%) and class drawings projects (80%).

# April 2010 – Civil / Survey CAD Level 1 – ENGR 111

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
			1		2	3	4
5	<b>6 Chapter 1</b> 6:00-9:00 PM AutoCAD Interface Drawing Setup Lines, Points, and Text <u><b>EX-1:</b></u> Property Boundary	7	<b>8 Chapter 2</b> 6:00-9:00 PM Drawing Orientation Layers and Properties Modelspace Plotting <u><b>EX-2:</b></u> APWA Titleblock <u><b>EX-3:</b></u> Modelspace Plotting	9	<b>10 Optional CAD Lab</b> 12:00-6:00 PM Prepare 24x36 Titleblock Submit DWG by email 4-11-10 <u><b>DWG-1:</b></u> APWA Titleblock	11	
12	<b>13 Chapter 3</b> 6:00-9:00 PM Line and Text Editing Block Insertion & Exploding Polylines and Area Fills <u><b>EX-4:</b></u> Bearing and Distance <u><b>EX-5:</b></u> Legal Description Text	14	<b>15 Chapter 4</b> 6:00-9:00 PM Temporary & Running Osnaps Offset, Divide, & Measure Filters & Transparent Commands <u><b>EX-6:</b></u> Radial Survey	16	<b>17 Field Survey &amp; Lab</b> 12:00-6:00 PM <b>8-11 AM Field Survey</b> Prepare Radial Survey Drawing Submit DWG by email 4-18-10 <u><b>DWG-2:</b></u> Radial Survey	18	
19	<b>20 Chapter 5</b> 6:00-9:00 PM Text Style and Importing Paperspace DVIEW and UCS <u><b>EX-7:</b></u> Paperspace Plotting	21	<b>22 Chapter 6</b> 6:00-9:00 PM Editing Commands <u><b>EX-8:</b></u> Plan View Fundamentals	23	<b>24 Optional CAD Lab</b> 12:00-6:00 PM Prepare Plan View drawing Submit DWG by email 4-25-10 <u><b>DWG-3:</b></u> Plan View Drawing	25	
26	<b>27 Chapter 7</b> 6:00-9:00 PM Polylines and Area Fills <u><b>EX-9:</b></u> Profile View Fundamentals	28	<b>29 Chapter 8</b> 6:00-9:00 PM Drawing Data <u><b>EX-10:</b></u> Utilities Fundamentals	30	<b>1 Optional CAD Lab</b> 12:00-6:00 PM Prepare Utilities drawing Submit DWG by email 5-2-10 <u><b>DWG-4:</b></u> Utilities Drawing		



PO Box 483  
 Custer WA 98240  
[admin@weiedu.org](mailto: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.**

<b>Name</b>	
<b>Address</b>	
<b>Phone</b>	
<b>Email</b>	

<b>Class Requested</b>	<b>ENGR 111 – Civil / Survey CAD Level 1</b>
<b>Class Month / Date</b>	<b>April 2010</b>

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

<b>Student ID #</b>		
<b>SSN #</b>		
<b>Date of Birth</b>		
<b>Gender</b>		
<b>Disability</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Race</b>	<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	
<b>Prior Education</b>	<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 _____
<b>Name of Last School Attended</b>		

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**Student Signature**

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**Date**