

# Civil 3D Level 2

ENGR 212 – 5 Credits/\$395 – May 2010

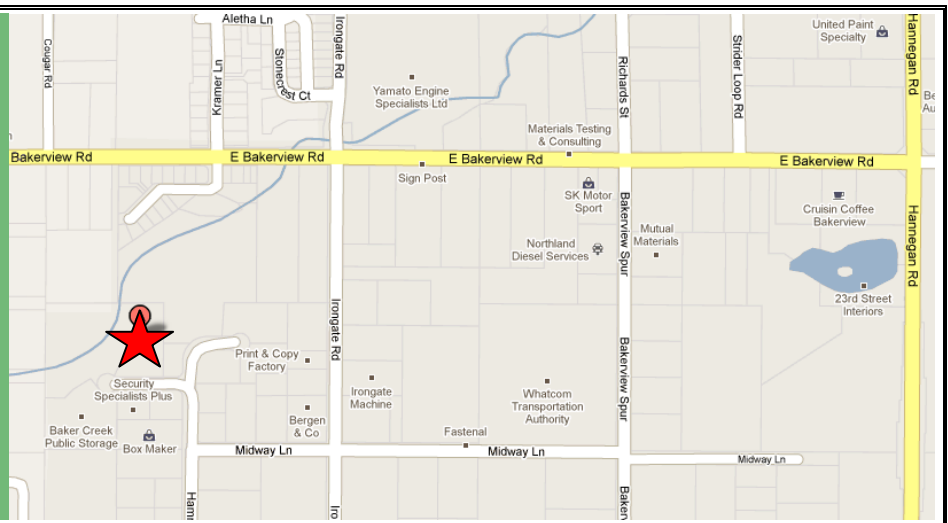


## Class Description:

This class is a practical hands-on experience. Students will work through an advanced Civil 3D project, showing many different methods of using Civil 3D to accomplish certain tasks and solve problems along the way. The course covers advanced elements of horizontal and vertical alignments, corridor modeling, plan production tools, pipe design tools, grading tools, data shortcuts and Autodesk Vault project management tools.

## 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 4<sup>th</sup> to May 27<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 \$395.** 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 Civil 3D 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 Civil 3D while they are registered as a student.
- Positive, motivated, respectful, and helpful classroom character

# Instructor

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## 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 a drawing project. Grades will be determined by attendance (50%) and class project (50%).

## May 2010 – Civil 3D Level 2 – ENGR 212

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1	2
3	<b>4 Chapter 1</b> 6:00-9:00 PM <u>Class Setup:</u> <u>Advanced Alignments:</u> Horizontal Alignments Graphic and Tabular Editing	5	<b>6 Chapter 2</b> 6:00-9:00 PM <u>Advanced Profiles:</u> Superelevations and Design Speed Finished Grade Profile Design Graphic and Tabular Editing	7	8	9
10	<b>11 Chapter 3</b> 6:00-9:00 PM <u>4-Way Intersection Grading:</u> Curb Returns Return Profile & Drainage Design Side Road Baselines Width and Slope Targeting	12	<b>13 Chapter 4</b> 6:00-9:00 PM <u>Cul-de-Sac Grading:</u> Curb Returns Return Profile & Drainage Design Cul-de-Sac Baselines Composite FG Surface Preparation  <u>Roundabout Grading Discussion:</u>	14	15	16
17	<b>18 Chapter 5</b> 6:00-9:00 PM <u>Pipe Networks:</u> Pipe Rules, Styles, and Parts Pipes in Plan View Pipes in Profile View	19	<b>20 Chapter 6</b> 6:00-9:00 PM <u>Automated Layout Tools:</u> Plan and Profile Production Sheet Manager	21	22	23
24	<b>25 Chapter 7</b> 6:00-9:00 PM <u>Survey Database:</u> Survey Networks Figure Styles and Prefixes Field Book Files	26	<b>27 Chapter 8</b> 6:00-9:00 PM <u>Design Teamwork</u> Working with Vault Working with Data Shortcuts	28	29	30



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 212 – Civil 3D Level 2</b>
<b>Class Month / Date</b>	<b>May 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>		

\_\_\_\_\_  
**Student Signature**

\_\_\_\_\_  
**Date**