

THREE RIVERS COMMUNITY COLLEGE  
**CONSTRUCTION GRAPHICS · ARC K135/L & LAB**

(Evening Section: Thursday 5:30 – 9:50pm)

Professor: Rick Staub, email Staub@PointOneArchitects.com

Objective: This course introduces the fundamental concepts of drafting and working drawings for the construction industry, emphasizing set layout and sequencing, sheet image composition, drawing construction, line weights, conventions, symbols and projection. "Drafting" as a means to convey "design intent" and "constructability" to the construction industry is accomplished through the lab portion of this course by the execution of actual drawing types, including architectural, civil, structural, detail, and other drawings.

Method: Lectures, Demonstrations, Class Discussion and Studio Practice.

Text: Construction Graphics, Keith A. Bisharat

COURSE TOPICS/CONTENT

<u>Week 01</u> 08/30	An Overview <i>History, Participants, Projects, Measurement</i>	<u>Week 09</u> 10/25	Doors & Windows <i>Conventions, Details &amp; Methods</i>
<u>Week 02</u> 09/06	Design Drawing <i>Sketches, Ortho, Descriptive Geometry</i>	<u>Week 10</u> 11/03	Roofing Systems <i>Conventions, Details &amp; Methods</i>
<u>Week 03</u> 09/13	Construction Drawing <i>Page Layout, Descriptive Geometry</i>	<u>Week 11</u> 11/01	Interior Construction <i>Conventions, Details &amp; Methods</i>
<u>Week 04</u> 09/20	Site Construction Drawing <i>Site Plan Data, Grading, Structures</i>	<u>Week 12</u> 11/08	Mechanical Systems <i>Conventions, Details &amp; Methods</i>
<u>Week 05</u> 09/27	Foundation Systems <i>Plans, Sections Details, Methods</i>	<u>Week 13</u> 11/15	Electrical Systems <i>Conventions, Details &amp; Methods</i>
<u>Week 06</u> 10/04	Framing Systems <i>Conventions, Details &amp; Methods</i>	<u>Week 14</u> 11/22	Thanksgiving Break <i>No Classes in Session</i>
<u>Week 07</u> 10/11	Framing Systems Cont'd <i>Conventions, Details &amp; Methods</i>	<u>Week 15</u> 11/29	Fabrication Drawings <i>Conventions, Details &amp; Methods</i>
<u>Week 08</u> 10/18	Cladding Systems <i>Conventions, Details &amp; Methods</i>	<u>Week 16</u> 12/06	Final Drawing Sets <i>Final Drawing Packages Due</i>

**Required Materials:**

- 12" role of white trace
- 12" architect's scale
- 12" 45° triangle
- one box of drafting dots (tape)
- one 0.5mm drafting pencil
- 0.5mm H lead
- 0.5mm 2H lead
- one compass
- erasing shield
- soft stick eraser

**Optional Materials:**

- 6" 45° triangle
- circle template
- ¼" scale floor plan template
- adjustable triangle
- drawing broom
- 24" x 36" Drafting Top

### Educational Objectives:

- Understand drawing intent, sheet composition, and the role of Construction Documents;
- Apply proper line weight in the illustration of construction drawings;
- Develop quality and consistent stylistic lettering;
- Develop a thorough understanding of orthographic projection and other drawing types;
- Master the ability to create a basic set of construction drawings that include:
  - Plan Views
  - Elevation Views
  - Cross-section Views
  - Basic Detailing

### Course Requirements:

Students assemble a **portfolio**, consisting of the various drawings assigned throughout the semester. Students are expected to work both in class and out of class, to execute the assigned drawings. The final portfolio is a critical part of the final grade and serves as an important work when transferring to a baccalaureate program.

### Supplies:

Students can anticipate having to purchase drawing vellum and drafting supplies. These will prove useful in the student's subsequent career in the construction industries.

## ACADEMIC INTEGRITY

Any and all exams, papers or reports submitted by you and that bears your name is presumed to be your own original work that has not previously been submitted for credit in another course unless you obtain prior written approval to do so from your professor.

In all of your assignments, including homework or drafts of papers, you may use words or ideas written by other individuals in publications, web sites, or other sources but only with proper attribution. "Proper attribution" means that you have fully identified the original source and extent of your use of the words or ideas of others that you reproduce in your work for this course, usually in the form of a footnote or parenthesis.

As a general rule, if you are citing from a published source or from a web site and the quotation is short (up to a sentence or two), place it in quotation marks; if you employ a longer passage from a publication or web site, please indent it and use single spacing. In both cases, be sure to cite the original source in a footnote or in parentheses.

(See [http://www.plagiarism.org/plag\\_article\\_how\\_do\\_I\\_cite\\_sources.html](http://www.plagiarism.org/plag_article_how_do_I_cite_sources.html) for more information on citing.)

If you are uncertain about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your professor beforehand.

Finally, you should keep in mind that as a member of the Three Rivers Community College community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits.

Be proud of your academic accomplishments and help to protect and promote academic integrity. The consequences of cheating and academic dishonesty may include a formal discipline file, possible loss of financial scholarship or employment opportunities, and denial of admission to a four year college.