

THREE RIVERS COMMUNITY COLLEGE
CONSTRUCTION GRAPHICS • ARC K135 & LAB, Room D-126
 (Day Section: Monday 1:00 – 5:20pm, Evening Section: Thursday 5:30 – 9:30pm)

Professor: Chuck Canavan, email CCanavan@trcc.commnet.edu

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>Unit 1</u> Intro to the Construction Drawing <i>Its Intent, Graphics and Content</i>	<u>Unit 9</u> Section Views <i>Layout and Projection</i>
<u>Unit 2</u> Drafting Basics <i>Scale, Lettering, Line weights</i>	<u>Unit 10</u> Elevation Views <i>Layout and Projection</i>
<u>Unit 3</u> Visualization <i>Orthogonal Views, Sections, Projection</i>	<u>Unit 11</u> Schedules <i>Doors, Windows, Finishes</i>
<u>Unit 4</u> Site Construction Drawing <i>The Site Plan, Grading, Structures</i>	<u>Unit 12</u> Interior Elevations <i>Layout and Projection</i>
<u>Unit 5</u> Foundation Systems <i>Plans, Sections Details, Methods</i>	<u>Unit 13</u> Mechanical, Electrical, Plumbing <i>Symbols and Schematics</i>
<u>Unit 6</u> Floor Plans <i>Layout, Dimensioning, Annotations</i>	<u>Unit 14</u> MEP Cont'd <i>Schedule Float</i>
<u>Unit 7</u> Framing Systems <i>Conventions, Details & Methods</i>	<u>Unit 15</u> Fabrication (Shop) Drawings <i>Conventions, Details & Methods</i>
<u>Unit 8</u> Cladding Systems <i>Conventions, Details & Methods</i>	<u>Unit 16</u> 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
- soft stick eraser

Optional Materials:

- 6" 45° triangle
- circle template
- 1/4" scale floor plan template
- adjustable triangle
- drawing broom
- 24" x 36" Drafting Top
- erasing shield

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 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.