

THREE RIVERS COMMUNITY COLLEGE
CONSTRUCTION CAD, CAD K214/215
Wednesday 5:00 - 9:30 PM, Room D-115

Instructor: Professor Mark A. Comeau ▪ ARCHITECT, 860.215.9415, email MComeau@threeivers.edu
Credits: 3, Hours: 5, Pre-requisites: ARC 135/L, CAD 106/07

Grade: Drawing Assembly 55%, Line Type/Accuracy 15%, Timeliness 15%, Viewport Mgmt 15%

Course Objective: Construction CAD is an industry-specific sequential course to Intro to AutoCAD, where students (after attaining working knowledge of the software), implement the methods and purposes of construction drawing details which convey design intent while illustrating constructability of detail, the materials, assemblies and methods to be used in construction. Student learning outcomes are augmented through construction observation, detail observation and a hands-on scaled detail building project.

Method: Operational-demonstrations; Situational-lecture; Mock in-office project practice;
(All projects will be accessed and submitted for grading via Blackboard.)

Text: (AutoCAD 2017, AutoDesk – *this is optional!*)

CAD & Pre-design Basics

Unit 1 Intro: the “CD Set” Template
Managing Model, Paper & Ports

Unit 2 Creating an “As-built” (sketch to CAD)
Measure & Digitizing

Unit 3 Site Plans: XRef and Trace
Plot Data and Controls

The “Plans”

Unit 4 Building the Floor Plan
Walls, Controls & Objects

Unit 5 Building the Foundation Plan
Control and Constr. Details

Typical Wall Section-Primary Elevation

Unit 6 Building the “Typical Wall” Section
Assembling the Wall

Unit 7 Building the Primary Elevations
Projecting from the Section

Spring Break

No Classes (Float)

Elevations & Sections Cont’d

Unit 8 Building the Cross-section
Projecting from Plan & Elevation

Unit 9 Engineering Site Sections
Preparing Typ. Site Details

Unit 10 Engineering Structural Sections
Preparing Typ. Structural Connections

Interior Details - Finishes

Unit 10 Building Interior Finishes
Preparing Interior Details & Schedules

Unit 12 Interior Finish Sections (Cabs & Millwork)
Typical Millwork Drawings

Final Project – a Capstone

Unit 13 The Plan Views
Site, Floor & Foundation

Unit 14 Supporting Views & Details
Elevations, Sections, Constr. Details

LEARNING OUTCOMES:

- Understand the role of construction documents to illustrate assembly and constructability in the CAD environment.
- Analyze and understand building systems and their integration in design and performance.
- Demonstrate working knowledge of the various codes, ordinances and regulations effecting designs and how architectural details are designed and drawn to convey field construction of such.

ACADEMIC PERFORMANCE

Lecture Period:

Students shall respect the classroom environment. Professors invest valuable time in lecture preparation to make the course content organized, interesting, and understandable and to make the learning environment collegial. Unless specifically directed by the professor, students shall refrain from sending email and instant messages, or from engaging in other activities (reading non-course materials, engaging in private conversations and so on), that disrespect the classroom environment and learning conditions for others.

Access to the Internet can be a valuable aid to the classroom learning environment. Students are encouraged to use laptops, smart phones, and other devices in order to explore concepts related to course discussions and topics. Students are discouraged from using technology in ways that distract from the learning community (e.g. Facebook, texting, work for other classes, etc.) and if found doing so, will be asked to leave the classroom for the day and will not get credit for attendance that class period.

Assessment:

Assessment of your mastery of the Courses learning objectives is administered through quizzes, exams, and essays. These are announced with ample preparation time and sometimes a study guide. Upon absence from a class in which an assessment is given, it is the student's responsibility to request, coordinate and schedule, a makeup date and time with the professor. Assessments not made up within one week from when initially given will result a three point reduction from the score earned, per class period lapse.

Online Learning Portfolio:

All students are required to maintain an online learning portfolio in Digication that uses the college template, in as much as it is pertinent and supported by outcome products of this course. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

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.