

Three Rivers Community College
CAD 130-131
INDUSTRIAL CAD
2015 Spring Syllabus
Prof. Ronald Greenier

Office Room C140

Office Hours: Tuesday 12:30-2:10
4:00-4:50

Communications:

Phone Number - 860-2159432
Email Address – rgreenier@trcc.comnet.edu

Class Hours:

Lecture: Tuesday 10:00-11:00
Lab: Thursday 10:31-12:05

Textbooks:

Engineering Drawing and Design 5th Edition
By Madsen, Madsen, and Turpin
AutoCAD 2014 or 2015: AutoCAD and its Applications
By Shumaker, Madsen, Madsen, and Black

Grading:

Lecture – 5 Tests = 100%

Lab consists of 13 weekly assignments each week weighted equally = 75%
Final Project = 15%
Power Point or AutoCAD Slide Presentation = 10%

DATE	CONTENT	ASSIGNED READING
1-22-15	Course Introduction Title Blocks and Borders Attributes - AutoCAD Template Drawings - AutoCAD	Chap 1 Pg. 55-63 Chap 25 Chap 2
1-27-15	ANSI Linetypes	Chap 6
1-29-15	AutoCAD Linetypes	
2-03-15	Scales What is CADD The Engineering Design Process	Chap 2 Chap 3 Chap 25
2-05-15	No Classes	
2-10-15	Manufacturing Materials and Processes	Chap 4
2-12-15	Geometric Constructions	Chap 7
2-17-15	Multiviews	Chap 8
2-19-15		
2-24-15	Dimensioning and Tolerancing	Chap 10
2-26-15		

3-03-15 3-05-15	Geometric Dimensioning and Tolerancing	Chap 13
3-10-15 3-12-15	Fasteners	Chap 11
3-17-15 3-19-15	Spring Break, Classes Not in Session Spring Break, Classes Not in Session	
3-24-15 3-26-15	Springs	Chap 11
3-31-15 4-02-15	Cams	Chap 16
4-07-15 4-09-15	Gears	Chap 16
4-14-15 4-16-15	Belt and Chain Drives	Chap 17
4-21-15 4-23-15	Working Drawings	Chap 15
4-28-15 4-30-15	Welding Processes and Representations	Chap 18
5-05-15 5-07-15	Final Project Final Project	Chap 15 Chap 15
5-12-15 5-14-15	Final Project Due PowerPoint Presentation Due	

All students are required to maintain a learning portfolio in Digication that uses the (Three Rivers) College Template.

CAD* K130 (formerly CAD K2210) 1 CREDIT HOUR COMPUTER-AIDED DRAFTING - INDUSTRIAL *Prerequisites: CAD* K106/107 and the latest CAD release working knowledge.*

Corequisite: CAD K131.* This course allows students to continue to learn and practice industrial drafting concepts using a CAD system. Typical industrial topics such as threads, gears, cams, piping systems, structural, welding, jigs, fixtures, and assembly are given as problems for the student to solve.

CAD* K131 (formerly CAD K2211) 2 CREDIT HOURS COMPUTER-AIDED DRAFTING - INDUSTRIAL LAB *Prerequisites: CAD* K106/107 and the latest CAD release working knowledge.*

Corequisite: CAD K130.* There is a CAD station for each student to use to solve the application problems given. Typical problems will be preparing drawings utilizing the topics in lecture.

Course Outcomes:

1. Demonstrate knowledge of drafting standards set forth by the American National Standards Institute (ANSI).
2. Demonstrate knowledge of drafting standards set forth by the International Standards Organization (ISO).

3. Provide a general understanding of standard drafting principles such as alphabet of lines, precedence of lines, dimensioning standards, and projection techniques.
4. Apply appropriate mathematical and scientific principles to solve problems utilizing a CAD program, particularly descriptive geometry.
5. Demonstrate the ability to develop an engineering concept through detail and assembly drafting techniques to produce professionally finished engineering drawings suitable for use in industry.
6. Demonstrate working knowledge to translate engineering sketches into accurate scaled drawings.
7. Be able to implement engineering change orders.
8. Be able to plan methods and processes of production.
9. Be able to select and demonstrate the appropriate characteristics of a particular material.
10. Demonstrate a working knowledge of the use of Geometric Dimensioning and Tolerancing (GDT) techniques used in industry.
11. Become efficient with the use of ISO 9000 standards as they relate to the Drafting and Design field.

Student Disabilities Policy:

Students with a documented disability can be provided supportive service and accommodations to assist them with their academic objectives. Services are strictly confidential. Disability services may include individualized accommodations, advising, advocacy, counseling, technical assistant and referral information.

If you have a question regarding a disability that may affect your progress in this course, please contact one of the college's Disability Service Providers as soon as possible. Chris Scarborough (860-892-5751/Room A-119) generally works with students who have Learning Disabilities, Attention Deficit Disorder, or Asperger's Syndrome (Chris's position is part-time). Kathleen Gray (860-885-2328/Room A-119) generally works with students who have physical, visual, hearing, medical, mobility, or psychiatric disabilities.

Please note it is Three Rivers Community College policy that an instructor cannot provide disability accommodations until a student provides the necessary paperwork from the college's Office of Disability Services to the instructor. Also, accommodations take effect when the instructor receives the paperwork from a student. Accommodations cannot be provided retroactively.

Academic Integrity Policy:

Academic integrity is an essential component of a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Academic dishonesty erodes the legitimacy of every degree awarded by the College. Present only your own best work; clearly document the sources of the material you use from others; and act with honor at all times, in this class and throughout of your academic career.

Syllabi content subject to change at instructors discretion