**Corse Title:** CAD/Drafting   
  
**Instructor:** Brent Kerr

**Email:**  brent.kerr@usd303.org

**Course Description:**

This course provides students with a broad introduction into 2-dimensional and 3-dimensional Computer-Aided Design (CAD) with a focus on construction- and architecture-specific applications. Students will learn how to use popular CAD software programs (Autodesk AutoCAD and Google SketchUp) to model construction projects, and then create and distribute basic, industry-standard architectural drawings.

**Students will gain from this course:**

* Understanding of the power and precision of computer-aided modeling and drafting;
* Ability to construct accurate 2D geometry as well as complex 3D shapes and surface objects;
* Ability to create 2D representations of 3D objects as plan view, elevations and sections;
* Ability to assemble these drawings in industry-standard plan form and produce plotted hardcopies ready for distribution;
* Awareness of architectural drafting with a focus on industry standards.

**Topics:**

* Intro to CAD, Intro to AutoCAD
* Precision Drawing & Drawing Aids
* Geometric Shapes
* Basic Printing
* Editing Tools
* Architectural Views & Drafting Views
* 3D modeling  with AutoCAD (Surfaces, Solids)
* 3D Modeling with SketchUp
* Annotating in AutoCAD with Text & Hatching
* Layers
* Templates & DesignCenter
* Advanced plotting (Layouts, Viewports), Office Standards
* Dimensioning
* Blocks, Drafting symbols, Attributes, Extracting data (as time allows)

**Course Requirements:**

Good attendance is required. Everyone needs to bring a pencil, and I-pad to class. Much of the class will involve teamwork and hands-on activities which cannot be effective without the student’s engagement.  Work habits and participation will be a major part of the student’s overall grade, so being on time and in class every day is important.  Students who are absent will be given two days to make-up work.  Students who fall behind and need extra help need to see the instructor.  In case of absence, the student is responsible for getting all information and/or assignment given out while gone.

**Course Evaluation:**

The following factors will be used to determine the student's grade in this course:

A. written assignments   
B. tests   
C. amount of time on task   
D. behavior and attitude   
E. final

The above will be averaged to determine a class grade Homework: work not completed in class may, at my discretion, be sent as homework. If so, it is due the next time the student is in class.