COMPUTER AIDED DESIGN & DRAFTING: INDUSTRIAL (CADI)

This is a list of the Computer Aided Design & Drafting: Industrial (CADI) courses available at KPU.

CADI 1200 **3 Credits**
Industrial Applications
Students will identify industrial processes and codes and standards. They will describe industrial design development, identify information from external resources, and describe types of drawings. Students will prepare a flow chart and a general arrangement, and identify materials handling equipment and components. They will identify piping equipment and components, and participate in industrial field trips.

Prerequisites: (CADD 1100 or DRAF 1100) and (CADD 1110 or DRAF 1110) and (CADD 1150 or [DRAF 1150 plus DRAF 1306]) and (CADD 1160 or DRAF 1160)

CADI 1210 **4 Credits**
Conveyor Systems
Students will identify types of transfer decks, apply design criteria, and identify design principles to prepare a transfer deck. They will identify types of conveyors, draw and detail a belt conveyor, and prepare chute details. Students will apply appropriate drafting practice.

Prerequisites: (CADD 1100 or DRAF 1100) and (CADD 1110 or DRAF 1110) and (CADD 1150 or [DRAF 1150 plus DRAF 1306]) and (CADD 1160 or DRAF 1160)

CADI 1220 **4 Credits**
Process Piping
Students will prepare piping and instrumentation diagrams, lay out a general arrangement, and prepare details of piping equipment. They will develop pipe routing and follow design principles to output piping orthographics and isometrics. Students will produce isometric spool drawings and apply appropriate drafting practice.

Prerequisites: (CADD 1100 or DRAF 1100) and (CADD 1110 or DRAF 1110) and (CADD 1150 or[(DRAF 1150 plus DRAF 1306]) and (CADD 1160 or DRAF 1160

CADI 1250 **4 Credits**
Introduction to Industrial 3-Dimensional Modeling Software
Students will identify 3-dimensional (3D) software for industrial and mechanical applications. They will use 3D parametric modeling software to make effective sketches, model parts and generate 2- dimensional (2D) drawings. Students will create assembly files, presentation drawings and assembly drawings. They will use process piping software to place components into a piping model, create orthographic piping working drawings, and to automatically generate piping isometric drawings with a bill of materials. Students will use piping and instrumentation diagram (P&ID) software to create piping schematics.

Prerequisites: (CADD 1100 or DRAF 1100) and (CADD 1110 or DRAF 1110) and (CADD 1150 or [DRAF 1150 plus DRAF 1302 plus DRAF 1306]) and (CADD 1160 or DRAF 1160