

# MECHANICAL DRAFTING (421)

Information provided includes course descriptions by subject only. For complete 2024-2025 programs/academic plans, please refer to Academic Programs (<http://catalog.blackhawk.edu/academics/>).

## 421-110 Interpreting Schematics for Manufacturing

**Credits:** 1

Interpreting Schematics for Manufacturing examines electrical symbols and diagrams, piping symbols and diagrams, hydraulic and pneumatic diagrams and symbols commonly found in the manufacturing industry.

**Aid Code:** 10 - undefined.

**Co-requisites:** (421-310)

Complete Course Listing

## 421-310 Print Reading for Manufacturing

**Credits:** 1

This course is designed to prepare students for reading prints in a manufacturing environment. In this course students will identify the purpose and function of different types of technical drawings, as well as proper drawing structure, techniques, and terminology.

**Aid Code:** 31 - undefined.

Complete Course Listing

## 421-380 Blueprint Reading(Welding)

**Credits:** 1-2

This course is designed to help the student acquire the ability to visualize spatial relationships between two and three view drawings. Introduction to machine and welding terminology and concepts is acquired by reading a series of prints. A study of welding symbols is covered. The course emphasizes training in visualization and factual information as a means of gaining a working knowledge of the interpretation of prints related to the welding or fabrication industry.

**Aid Code:** 31 - undefined.

**Restrictions:** Restricted to students admitted to Program.

**Co-requisites:** 804-306

Complete Course Listing

## 421-385 Blueprint Reading

**Credits:** 1-2

Blueprint reading is really learning a new language where much of it is presented in graphic or symbolic form. Students will learn about different types of drawings, proper drawing structure, and drawing terminology. They will learn to produce simple sketches and visualize two and three-dimensional parts. The experienced machine operator must be able to decipher blueprints in order to produce parts to proper specification.

**Aid Code:** 31 - undefined.

Complete Course Listing

## 421-390 Blueprint Reading Maintenance

**Credits:** 1-3

This course focuses on reading and interpreting blueprints, drawings and graphic symbols used in industry. Students will gain experience in the ability to visualize spatial relationships between single and multiple-view drawings. Time is spent interpreting actual blueprints. Students will be able to interpret a variety of prints such as machining, mechanical, or assembly prints.

**Aid Code:** 31 - undefined.

**Restrictions:** Restricted to students admitted to Program.

Complete Course Listing

## 421-401 Mech Drafting

**Credits:** 0.1-5

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-402 Drafting & Blueprint Reading

**Credits:** 0.2-6.4

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-404 Introduction to CAD

**Credits:** 0.2-3

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-405 Introduction To CAD II

**Credits:** 0.2-2.4

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-406 Auto Cad

**Credits:** 0.2-4

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-407 Interactive Auto CAD

**Credits:** 0.2-4

**Aid Code:** 47 - undefined.

Complete Course Listing

## 421-408 Blueprint Reading-Electrical

**Credits:** 0.1-2

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-409 Blueprint Reading-Mechanical**

**Credits:** 0.1-4

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-410 Blueprint Reading-Machinist**

**Credits:** 0.2-4

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-411 Blueprint Reading Machine 24**

**Credits:** .6

This 24 hour course will teach beginning blueprint for Reading for Machines Define Terminology and abbreviations associated with the print reading Differentiate between drawing and prints Interpret the type of lines found on prints Interpret title blocks Interpret the layout of the views of an object Calculate tolerances on dimensions Interpret dimensions on print Sketch a simple object Dimension a drawing Draw an orthographic projection Interpret auxilliary view Interpret Sectional views Interpret Assembly drawings Analyze Machine details Interpret threaded screw component specifications .

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-412 Geometric Dimensioning**

**Credits:** 0.1-3

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-413 Auto Cad-Intermediate**

**Credits:** 0.2-4

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-414 Auto Cad-Mechanical Desktop**

**Credits:** 0.1-3

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-415 Blueprint Reading-15**

**Credits:** 1.5

This 15-hour course will focus on teaching students how to read and decipher information presented in graphic or symbolic form on blueprints and introduce the Geometric Dimensioning and Tolerancing (GD&T) system of symbols used to portray mechanical specifications and relationships on mechanical drawings.

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-416 Blueprint Reading-Civil**

**Credits:** .15

This course introduces fundamental elements of civil blueprints including title block components, the alphabet of lines, legends, symbols, and scaling for civil and site pages.

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-417 Geometric Dimensioning & Tolerancing-16**

**Credits:** .4

Mechanical drafting dimensioning fundamentals are developed including conventional tolerancing and basic hole and shaft tolerancing methods.

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-420 Blueprint Reading-Architecture**

**Credits:** 0.1-2.5

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-421 Drafting-Architectural Design**

**Credits:** 0.2-2.5

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-422 Intro To Graphic Communication**

**Credits:** 0.2-2.5

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-423 Silkscreening For Printing**

**Credits:** 0.2-3

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-424 Computer Typesetting & Design**

**Credits:** 0.2-3

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-425 Technical Sketch & Lettering**

**Credits:** 0.2-2.5

**Aid Code:** 47 - undefined.

Complete Course Listing

**421-478 Blueprint Reading****Credits:** 0.1-8**Aid Code:** 47 - undefined.

Complete Course Listing