

# Learning Outcomes: Drafting & Design Technology

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## ❖ **Drafting & Design Technology, Degree**

- Engage in effectively interpersonal, oral, visual, and in written communication.
- Solve civil engineering and surveying problems by applying fundamental knowledge of mathematical, computational, scientific and engineering concepts.
- Demonstrate fundamental knowledge of the systems and processes used to construct the built environment, including an understanding of industry terminology.
- Demonstrate basic competency in the use of surveying data collectors, calculating angles, and field book procedures, and describe their importance in construction and design.
- Demonstrate basic drafting proficiency, including the ability to use industry-standard computer software to interpret and create architectural and mechanical engineering drawings.
- Demonstrate mechanical engineering concepts which would include geometric dimensioning and tolerancing, manufacturing materials and the design process.
- Understand professional and ethical responsibilities, and the impact of engineering solutions in a global, societal, and environmental context.

## ❖ **Drafting, Architectural, College Credit Certificate**

- Solve mathematical problems and equations utilizing algebraic and trigonometric functions.
- Demonstrate fundamental knowledge of the systems and processes used to construct the built environment, including an understanding of industry terminology.
- Demonstrate basic drafting proficiency, including the ability to use industry-standard computer software to interpret and create architectural drawings.
- Demonstrate fundamental knowledge to develop a schedule of activities and estimate the cost for a construction project.

## ❖ **Drafting, Mechanical, College Credit Certificate**

- Solve mathematical problems and equations utilizing algebraic and trigonometric functions.
- Demonstrate fundamental knowledge of the systems and processes used to construct the built environment, including an understanding of industry terminology.
- Demonstrate basic drafting proficiency, including the ability to use industry-standard computer software to interpret and create mechanical engineering drawings.
- Demonstrate mechanical engineering concepts which would include geometric dimensioning and tolerancing, manufacturing materials and the design process.

❖ **Drafting, Surveying, College Credit Certificate**

- Solve civil engineering and surveying problems by applying fundamental knowledge of mathematical, computational, scientific and engineering concepts.
- Demonstrate basic drafting proficiency, including the ability to use industry-standard computer software to interpret and create civil engineering and surveying drawings.
- Demonstrate basic competency in the use of surveying data collectors, calculating angles, and field book procedures, and describe their importance in construction and design.
- Demonstrate the concepts of highway design, subdivision design and field layout of boundary lines.

❖ **Drafting-Auto CAD, College Credit Certificate**

- Solve mathematical problems and equations utilizing algebraic and trigonometric functions.
- Demonstrate basic drafting proficiency, including the ability to use industry-standard computer software to interpret and create mechanical engineering drawings or civil engineering drawings or architectural drawings.