

## Industrial Readiness Certificate

This certificate program delivers foundational skill sets to students who are interested in entering an apprenticeship or other employer-sponsored industrial training program. The successful completion of this certificate indicates to prospective employer sponsors that the student has the aptitude necessary to undertake the rigors of such a training program, and will also help candidates prepare for a potential program entrance exam. A student must earn a minimum 2.0 grade point in each course to receive this certificate.

A certificate will be awarded to students who successfully complete the following courses:

| Courses      |   | SUGGESTED SEQUENCE |   |   |   | CONTACT HOURS | CREDIT HOURS |
|--------------|---|--------------------|---|---|---|---------------|--------------|
| ATAM 1150    | Mathematics – Shop Arithmetic             | ■                  | □ | □ | □ | 32            | 2            |
| ATDD 1900    | Drafting – Machine Tool Blueprint Reading | ■                  | □ | □ | □ | 32            | 2            |
| ATTR 1600    | Industrial Safety – Skilled Trades        | ■                  | □ | □ | □ | 32            | 2            |
| ATTR 1000    | Trade Related Preparation                 | □                  | ■ | □ | □ | 48            | 3            |
| <b>Total</b> |   |                    |   |   |   | <b>144</b>    | <b>9</b>     |

### Course Descriptions

#### **ATAM-1150—Mathematics – Shop Arithmetic ..... 2.00 credit hours**

Prerequisites: None. Review of basic arithmetic; whole numbers, fractions, decimals, signed numbers, grouping symbols, square root, ratio and proportion, flat and round tapers, simple and complex gear ratios; practical industrial shop problems are employed. (2 contact hrs) South Campus.

#### **ATDD-1900—Drafting – Machine Tool Blueprint Reading ..... 2.00 credit hours**

Prerequisite: None. An introduction to blueprint reading; interpretation of various kinds of lines, position of views, symbols, conventions, dimensioning practices, sectioning, auxiliary views and symmetry with emphasis on techniques employed to show details in relation to assembly drawings. (2 contact hrs) South Campus.

#### **ATTR-1600—Industrial Safety – Skilled Trades ..... 2.00 credit hours**

Prerequisites: None. Encompasses safety/health rules, procedures, safety responsibilities, and hazard recognition associated with the following: lockouts, machine tools, machine guarding, hand tools, portable power tools, safe use of energy sources, powered trucks, material handling, hazardous materials, lifting, climbing, ladders, scaffolds, rigging, slings, ropes, cranes, hoists, and basic fire safety. Accident causation, impact, prevention, and basic human anatomy and physiology will be studied. (2 contact hrs) South Campus.

#### **ATTR-1000—Trade Related Preparation ..... 3.00 credit hours**

Prerequisites: ATDD-1900 and ATAM-1150. Preparation for a career in the trades is assessed through an overview of industrial processes. A review of math, blueprint reading, and measuring tools relative to shop application are major components of this course. Students receive diagnostic evaluation through testing in these major areas. (3 contact hrs) South Campus.

For more information, please contact the Applied Technology and Apprenticeship Department at 586.445.7438 or [apprenticeship@macomb.edu](mailto:apprenticeship@macomb.edu)