

Industrial Maintenance Certificate

Industrial maintenance mechanics are employed in the die-casting, plastics, food processing, printing, precision metal and woodworking industries. The vocational certificate course work includes a broad curriculum of industrial electricity, welding, HVAC and blueprint reading. Emphasis will be hands-on training in the repairing and testing of equipment. This also allows students employed in an industrial maintenance position to broaden their skill areas and achieve a vocational certificate.

Note: MFAB 120 - MFAB Tools and Equipment or MFAB 127-Welding Processes are prerequisites/corequisites to MFAB 121. Students who may have the skills needed for MFAB 120 or MFAB 127 may contact the career program facilitator for a waiver or may contact the Testing Center for prior learning credit.

Suggested/Sample Course Sequence

The sequence taken by the student may vary depending on prerequisites, course availability, and personal/ professional responsibilities.

(Major Code 5210; State CIP Code 47.0303)

- Gainful Employment - Industrial Maintenance (<http://www.jccc.edu/electrical-tech/ge-industrial-maintenance/gedt.html>)
- Electrical Technology (<http://www.jccc.edu/electrical-tech>)

First Semester

DRAF 129 or MFAB 180 or HVAC 143	Interpreting Architectural Drawings Blueprint and Symbols Reading for Welders Reading Blueprints and Ladder Diagrams	2
ELTE 123	Electromechanical Systems	4
INDT 125	Industrial Safety/OSHA 30	3
MFAB 124	Introduction to Welding	3
Total Hours		12

Second Semester

Technical Electives (see list below)		12
Total Hours		12

Technical Electives

ELEC 120	Introduction to Electronics	3
ELEC 133	Programmable Controllers	3
ELEC 165	Advanced Programmable Controllers*	3
ELTE 122	National Electrical Code I	4
ELTE 200	Commercial Wiring Methods*	4
ELTE 205	Industrial Electrical Wiring*	4
HVAC 121	Basic Principles of HVAC*	4
CET 105	Construction Methods	3
MFAB 140	Maintenance Repair Welding*	3
MFAB 128	Basic Machine Tool Technology	3
MFAB 240	Metallurgy	2
INDT 155	Workplace Skills	1

Total Program Hours: 24

Courses

INDT 125 Industrial Safety/OSHA 30* (3 Hours)

Prerequisites or corequisites: RDG 126 or College Reading Readiness

This course introduces the student to basic safety policies, procedures, and regulations. The student should be able to list various safety, health, and environmental topics, and recognize the need for an ongoing safety program. Upon successful completion of this course, including attendance and grade requirements, the students may be eligible for the OSHA General Industry Health and Safety Training card. 3 hr. lecture/wk.

INDT 155 Workplace Skills* (1 Hour)

Prerequisites or corequisites: RDG 126 or College Reading Readiness

Upon successful completion of this course, the student should be able to identify the job skills necessary to have a successful career in the field of his or her choosing. Topics include listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, time and resource management, work ethics and career planning. 1 hr. lecture/wk.