

MILLWRIGHT (MWRT)

MWRT 1116, Introduction to Millwright (6 Credit Hours)

3 lecture hours per week, 6 lab hours per week, 9 contact hours per week

Introduces students to the Millwright craft and covers millwright hand tools, fasteners and anchors, basic layout, reading of mechanical drawings, and field sketching. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): CORE 1003.

* May be taken concurrently.

MWRT 1216, Millwright Fundamentals I (6 Credit Hours)

3 lecture hours per week, 6 lab hours per week, 9 contact hours per week

Provides instruction in the fundamentals of the Millwright craft. Includes calculations routinely performed by Millwrights; power tools typically used by Millwrights, some of which are specific to the craft; setting baseplates and soleplates; o-rings and non-mechanical fittings; and introduces students to oxyfuel cutting and plasma arc cutting. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): CORE 1003 and MWRT 1116.

Corequisite(s): MWRT 1226

MWRT 1226, Millwright Fundamentals II (6 Credit Hours)

4 lecture hours per week, 4 lab hours per week, 8 contact hours per week

Completes coverage of the fundamentals of the Millwright craft. Includes use of precision measuring tools, rigging practices, gaskets and packing, and bearings. The course provides additional coverage of craft-related mathematics. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): CORE 1003 and MWRT 1116.

Corequisite(s): MWRT 1216

MWRT 2316, Intermediate Millwright I (6 Credit Hours)

4 lecture hours per week, 6 lab hours per week, 10 contact hours per week

Initiates coverage of applications that build on the knowledge, skills, and abilities gained in Millwright fundamentals. Students apply their prior learning to pneumatic systems, compressors and their maintenance, lubrication, mechanical seals, as well as troubleshooting and repairing pumps. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): MWRT 1226.

Corequisite(s): MWRT 2326

MWRT 2326, Intermediate Millwright II (6 Credit Hours)

4 lecture hours per week, 6 lab hours per week, 10 contact hours per week

Continues instruction in the applications of Millwright fundamentals, covering couplings and alignment fundamentals, pre-alignment and shim fundamentals, dial indicator alignment, and troubleshooting and repairing pneumatic equipment. The course introduces students to the analysis of vibrations and provides advanced instruction in mechanical drawings. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): MWRT 1226.

Corequisite(s): MWRT 2316

MWRT 2416, Advanced Millwright I (6 Credit Hours)

4 lecture hours per week, 4 lab hours per week, 8 contact hours per week

Introduces students to advanced content and skills critical to entry-level employment as a Millwright. Covers basic hydraulic systems, troubleshooting and repairing hydraulic equipment, the installation of belt and chain drives, conveyors, laser alignment, and introduces protocols for communications with crane operators. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): MWRT 2316 and 2326.

Corequisite(s): MWRT 2426

MWRT 2426, Advanced Millwright II (6 Credit Hours)

5 lecture hours per week, 3 lab hours per week, 8 contact hours per week

Concludes the advanced topics for the Millwright craft. Covers optical layout and alignment, gearboxes, turbines, preventive and predictive maintenance, and crane safety and emergency procedures. Successful completion of this course requires passing assessment measures with scores of 70% or higher and prepares students for earning an entry-level industry-based certification. This course requires an exam fee and a lab fee.

Prerequisite(s): MWRT 2316 and 2326.

Corequisite(s): MWRT 2416