
COURSES

PDF MANUFACTURING AND PROD TECH

MPT111 Fundamentals of
Manufacturing and
Automation I 3 Credits

Prerequisite(s): None Introduces the fundamental mechanical and electrical concepts used in industrial applications. This includes the effects of levers and forces on a system; the operation of relay controls; and using basic logic circuits to provide automated control. Simulated tools and lab experiences will be used to apply concepts.

MPT112 Fundamentals of
Manufacturing and
Automation II 3 Credits

Prerequisite(s): MPT 111 or concurrent enrollment Allows students to practice the concepts of production and automation systems management and controls. Enables students to practice manufacturing skills, including robotic and conveyor systems as well as quality integration. Covers the underlying programming, fluid and mechanical transmission concepts of these systems.

MPT114 Fundamentals of
Manufacturing and
Automation III 3 Credits

Prerequisite(s): MPT 112 or concurrent enrollment A continuation of MPT 112. Production and automation systems management and control are further developed.

MPT160 Mechanical Drive Systems
I 3 Credits

Prerequisite(s): ELM 110 or ELM 112 Covers the basics of mechanical components and systems, chain and belt drives in a complex mechatronic system. Teaches the functions and properties of mechanical components and control elements based upon physical principles, and the roles they play within the system. Covers technical documentation such as data sheets, circuit diagrams, displacement step diagrams and function charts while exploring installation, troubleshooting strategies and preventive maintenance.