Process Technology

EPT 113 Intro to Process Technology 3 cr
Introduction to Process Technology is part of the NAPTA Series for Process Technology. It provides learning material for the first course of a process technology program. The course was developed in partnership with Industry and Education. It covers history of the process industry, green technologies, career as a process technician, working as a team member, basic physics, basic chemistry, safety, health and environmental protection, principles of quality and process equipment. It explores the industry s modern-day processes and legislative influences and includes new critical thinking. This course is the foundation for and supports a consistent curriculum and exit competencies for process technology graduates.

EPT 141 Process Quality 3 cr
Process Quality is part of the NAPTA Series for Process Technology. This course is the study of the background and application of quality concepts. Topics include team skills, quality tools, and economics and continuous improvement. Students will define terms associated with quality systems; demonstrate team skills; and apply principles and tools of quality to process systems. The course was developed in partnership with Industry and Education. It covers Total Quality Management (TQM), customer service and personal effectiveness, team skills, variance and operating consistency, continuous improvement and corrective/ preventive action, group problem solving, Statistical Process Control (SPC), data collection, analysis and interpretation. This course supports a consistent curriculum and exit competencies for process technology graduates.

EPT 142 Process Technology I - Equip 4 cr
Process Technology I - Equipment is part of the NAPTA Series for Process Technology. It focuses on the tools and equipment of the process industry. The course was developed in partnership with Industry and Education and provides a common national standard for the process technology equipment course of a process technology degree program. It covers piping, tubing, hoses & fittings, valves, pumps, compressors, turbines, motors & engines, power transmission & lubrication, heat exchangers, cooling towers, furnaces, boilers, filters, dryers, vessels, towers & columns, reactors, tanks & drums, flares, and process diagrams. This course includes a lab and field trip where students will demonstrate their ability to identify and describe the purpose of process equipment. This course supports a consistent curriculum and exit competencies for process technology graduates.

EPT 151 Safety, Health & Environment 3 cr
Safety, Health and Environment are part of the NAPTA Series for Process Technology. This course covers the development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis is placed on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Students will list components of a typical plant safety and environmental program; describe the role of a process technician in relation to safety, health, and environment; and identify and describe safety, health, and environmental equipment uses. The course was developed in partnership with Industry and Education. It covers types of hazards and their effects, site security, hazard controls, process safety management, audits, investigations and reporting, work permitting systems, personal protective equipment and first aid, fire, rescue and emergency response. This course supports a consistent curriculum and exit competencies for process technology graduates.

EPT 171 Process Instrumentation 3 cr
Process Instrumentation is part of the NAPTA Series for Process Technology. This course is the study of instruments and instrument systems used in chemical processing industry, including terminology, primary variables, symbology, control loops, and basic troubleshooting. Students will identify and explain the function of instruments used in the chemical processing industry; explain the relationship of process control elements in a control loop; and define and apply terms and symbols used in instrumentation. The course was developed in partnership with Industry and Education. It covers process variables, elements and instruments, control loops, switches, relays, alarms, instrument air systems, interlocks, symbology, and instrumentation troubleshooting. This course supports a consistent curriculum and exit competencies for process technology graduates.