## Petroleum Technology (PETR)

### Courses

**PETR A130 Remotely Actuated Valves 4 Credits**
Introduces terminology, symbolism and basic principles for installation and maintenance of remotely actuated valves encountered in industrial process instrumentation.

**Registration Restrictions:** Admission to the Associate of Applied Science in Industrial Process Instrumentation, Associate of Applied Science in Process Technology, Undergraduate Certificate in Petroleum Technology or Occupational Endorsement Certificate in Valve Installation and Maintenance

**PETR A131 Mechanically Actuated Valves 2 Credits**
Introduces terminology, symbolism and basic principles for installation and maintenance of mechanically actuated valves encountered in industrial process instrumentation.

**Registration Restrictions:** Admission to the Associate of Applied Science in Industrial Process Instrumentation, Associate of Applied Science in Process Technology, Undergraduate Certificate in Petroleum Technology or Occupational Endorsement Certificate in Valve Installation and Maintenance

**PETR A155 Process Industry Basics 3 Credits**
Introduces reading and sketching of process drawings, orthographic projections, and piping isometrics. Overview of basic industrial mathematics, calculations and conversions. Covers basic piping and tubing systems. Overview of various measurement tools and techniques; basic industrial hand tools and their safe and effective use; the various welding types and techniques; and symbol reading.

**Prerequisites:** MATH A055 with a minimum grade of C.

**PETR A240 Industrial Process Instrumentation III 3 Credits**
Presents details of the installation and application of continuous process instruments in closed feedback control loops. Includes practice of functional check-out procedures on physical hardware. Introduces ladder logic used for discrete control of processes.

**Registration Restrictions:** Degree-seeking Industrial Process Instrumentation or Process Technology students.

**Prerequisites:** PRT A144.

**PETR A244 Industrial Process Instrumentation IV 3 Credits**
Explores techniques used in designing and optimizing control loops. Develops methods for testing and optimizing feedback and feed forward control loops, and introduces loop implementation methods in digital control environments.

**Prerequisites:** PETR A240 with a minimum grade of C and MATH A105 with a minimum grade of C.