

PROCESS TECHNOLOGY (PROP)

PROP 235. Hydrocarbon Chemistry

Credits: 3

This course provides a fundamental study of the organic chemistry of hydrocarbons associated with crude oil. This course will also focus on process chemistry, chemistry fundamentals, typical process reactions and process solubility theory.

PROP 237. Distillation and Refinery Operations

Credits: 4

This course provides a comprehensive study of processes associated with refining, and petrochemical distillation. This course will also focus on equipment designs, operation requirements and technician responsibilities associated with the operation of typical distillation facilities.

PROP 239. Gas Processing

Credits: 3

This course provides a comprehensive study of the processing technologies associated with the production of natural gas and other gases and liquids found within natural gas fields. Students study gas laws, molecular structure, process theory, terminology, equipment and the auxiliary systems that support the production and processing of natural gas. The production of synthetic natural gas by means of coal gasification will be covered.

PROP 244. Ethanol and Biofuels Production

Credits: 3

Students study the design, operation, equipment and process flows of ethanol plants and biofuels facilities including biodiesel plants. The student will gain the ability to interpret basic flow diagrams and understand related terminology. Focus will be on equipment design and operation used in these facilities as well as safety considerations, typical maintenance, and startup/shutdown procedures.