

CHEG - CHEMICAL ENGINEERING (CHEG)

***Course Fees are Per Credit Hour**

CHEG 210. Chemical Process Calculations. (3 Credits)

This course introduces the concepts and methods fundamental to the solution of common chemical process problems. Topics include chemical process systems and equipment, material and energy balances, process flowcharts, equations of state, chemical equilibrium, and elementary thermodynamics. Prerequisite: CH 112. Prerequisite or Corequisite: MA 125.

Course Fees: \$60

CHEG 310. Chemical Thermodynamics and Reactions. (4 Credits)

The thermodynamics portion of this course covers multicomponent systems with a focus on physical, chemical, and phase equilibria. The reactions portion of the course covers the application of kinetic models and data to the design of both batch and continuous reactor design.

The course will apply appropriate numerical software to solve complex calculations. Prerequisites: CHEG 210, EG 305.

Course Fees: \$60

CHEG 320. Unit Operations I. (1 Credit)

This is the first course in a two-course sequence that provides hands-on experiences with process equipment commonly used in chemical and industrial settings. This first course covers the theory, equipment, instrumentation, start-up, operation, troubleshooting, and data collection associated with fluid flow and heat transfer systems. Prerequisites:

CHEG 310, EG 130, EG 390.

Course Fees: \$60

CHEG 410. Separations Engineering. (3 Credits)

This course covers separation techniques commonly encountered in chemical and industrial settings. Topics include distillation, absorption, stripping, extraction, diffusion, and mass transfer. Applications include batch, continuous, staged, and packed separation systems through the use of simulation software. Prerequisite: CHEG 310. Prerequisite or Corequisite: CH 311.

Course Fees: \$60

CHEG 420. Unit Operations II. (1 Credit)

This is the second course in a two-course sequence that provides hands-on experiences with process equipment commonly used in chemical and industrial settings. This course covers the theory, equipment, instrumentation, start-up, operation, troubleshooting, and data collection associated with chemical separations and reactor systems. Prerequisite: CHEG 320.

Course Fees: \$60