

# CHEMICAL ENGINEERING

www.chbe.umd.edu

## CORE GENERAL EDUCATION PROGRAM

*Requirement* *Course/Grade/Credit*

### Fundamental Studies (6 credits)

English Composition - ENGL 101 \_\_\_\_\_ 3

Advanced Composition - ENGL 393 \_\_\_\_\_ 3

### Distributive Studies (18 credits) [Lower level courses]

#### *Humanities and the Arts (9 credits)*

Literature (HL) \_\_\_\_\_ 3

Arts (HA) \_\_\_\_\_ 3

Other Humanities (HA, HL, HO, IE\*) \_\_\_\_\_ 3

#### *Social and Behavioral Sciences (9 credits)*

Social/Political History (SH) \_\_\_\_\_ 3

Behavior/Social Science (SB) \_\_\_\_\_ 3

Behavior/Social Science (SB, IE\*) \_\_\_\_\_ 3

\*Only one Interdisciplinary & Emerging Issues (IE) course can be taken in place of third humanities or behavior/social science course.

### Advanced Studies (6 credits) [Upper level courses]

Must be courses outside of your major department or may include an approved Capstone course in your major

CHEM 482 - Physical Chem II \_\_\_\_\_ 0

ENCH 446 - Process Eng Econ & Design II \_\_\_\_\_ 0

\*CORE Approved Capstone Course.

### Diversity (3 credits)

One course from approved list (D) \_\_\_\_\_ 0/3

## MAJOR REQUIREMENTS

### Basic Sciences

CHEM 135 - Chem for Eng \_\_\_\_\_ 3

CHEM 136 - Chemistry Lab for Eng \_\_\_\_\_ 1

CHEM 231 & 232 - Organic Chemistry I w Lab \_\_\_\_\_ 3/1

CHEM 241 & 242 - Organic Chemistry II w Lab \_\_\_\_\_ 3/1

PHYS 161 - General Physics I \_\_\_\_\_ 3

PHYS 260 & 261 - Gen Physics II w Lab \_\_\_\_\_ 3/1

PHYS 270 & 271 - Gen Physics III w Lab \_\_\_\_\_ 3/1

MATH 140 - Calculus I \_\_\_\_\_ 4

MATH 141 - Calculus II \_\_\_\_\_ 4

MATH 241 - Calculus III \_\_\_\_\_ 4

MATH 246 - Differential Equations \_\_\_\_\_ 3

### Engineering Sciences

ENES 100 - Intro to Eng Design \_\_\_\_\_ 3

ENES 102 - Statics \_\_\_\_\_ 3

### Major Requirements

ENCH 215 - Chemical Eng Analysis \_\_\_\_\_ 3

ENCH 250 - Computer Methods in Chem Eng \_\_\_\_\_ 3

ENCH 300 - Chem Process Thermodynamics \_\_\_\_\_ 3

ENMA 300 - Intro to Materials & Applications \_\_\_\_\_ 3

ENCH 333 - Chem Eng Seminar \_\_\_\_\_ 1

ENCH 400 - Chem Eng Thermodynamics II \_\_\_\_\_ 3

ENCH 422 - Transport Processes I \_\_\_\_\_ 3

ENCH 424 - Transport Processes II \_\_\_\_\_ 3

ENCH 426 - Transport Processes III \_\_\_\_\_ 3

ENCH 437 - Chem Eng Lab \_\_\_\_\_ 3

ENCH 440 - Chem Eng Kinetics \_\_\_\_\_ 3

ENCH 442 - Chem Eng Systems Analysis \_\_\_\_\_ 3

ENCH 444 - Process Eng Econ & Design I \_\_\_\_\_ 3

ENCH 446 - Process Eng Econ & Design II \_\_\_\_\_ 3

ENCH 4XX - Elective \_\_\_\_\_ 3

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### Technical Requirements

CHEM 482 - Physical Chem II \_\_\_\_\_ 3

CHEM 483 - Physical Chem Lab I \_\_\_\_\_ 2

## NOTES

Effective Spring 05+ postsecondary matriculation:

All engineering (ENXX) and technical (i.e., MATH, PHYS, CHEM) courses must be completed with a grade of "2.0" or better.

Others:

All engineering (ENXX) courses must be completed with a grade of "2.0" or better.

All degree courses must be taken for a regular grade.

A minimum of 120 credits and completion of all degree requirements is required for graduation.

The responsibility for meeting all graduation requirements in any curriculum rests with the student.

Try Degree Navigator at <http://www.testudo.umd.edu/dnentry.html>