

## **Chemical Engineering**

Bachelor of Science in Chemical Engineering with Concentration in Biochemical Engineering

Major: CHE

Concentration: BioE

Degree: BCH

Unit: SS

Students specializing in Chemical Engineering (with biochemical engineering concentration) will complete the program outlined above with the minor modifications outlined in the table below. Two semesters in the General Engineering Studies Division are followed by a further period of study in the Professional School of Engineering. This is comprised of nine semesters in the Basic Studies Division (for the Bachelor of Science degree) and the graduate/professional year in the Higher Studies Division (for the Master of Engineering degree). This curriculum is designed as an integrated five-year program, with a cooperative education component, culminating in the Master of Engineering degree that is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET).

### **Courses removed from traditional**

#### **Chemical Engineering**

Science Elective

Free Elective

Free Elective

Advanced Chemistry Elective

ChE 436

ChE 572

ChE 486

### **Courses substituted for**

#### **Biochemical Engineering concentration**

Biol 329 - Cellular and Molecular Biology

ChE 402 - Biochem Eng Fundamentals

Biol or Biochem elective<sup>1</sup>

Chem 342 - Organic Chemistry II

ChE 4XX - BIOSEP Operations

ChE 4XX - Biotech Facility Design

ChE 4XX - Bioprocess Engineering Laboratory

All other courses will be the same as in traditional chemical engineering.

#### **Minimum Total**

.....**137**

The curriculum in this degree program is structured to require that students develop skills and competency in Computer and Information Literacy, as one of the modern engineering tools necessary for professional practice.

<sup>1</sup> Choose one course from BIOL 257, 330, 465 or CHEM 445 (Intro to Biochemistry)