

Chemical Engineering

Elective Focus Area

Biochemical Engineering

General Education Components (15 semester hours)

GEC Courses consistent with career goals 15 s.h.

Statistics Elective (3 semester hours)

(Recommended: 22S:039)

22S:039 Probability and Statistics for Engineering and Physical Sciences 3 s.h.

Engineering Elective (3 semester hours)

052:108 Introduction of Biochemical Engineering 3 s.h.
(offered Fall of Odd Years)

Advanced Chemistry Electives (9 or 10 semester hours)

(Choose the Analytical or Biochemical sequence)

Advanced Chemistry Course 3 s.h.
Advanced Chemistry Course 3 s.h.
Advanced Chemistry Lab 3 or 4 s.h.

Free Electives (11 or 12 semester hours from the following list)

Engineering Electives

051:070 Biomaterials I 4 s.h.
051:160 Biotransport Processes 3 s.h.
051:172 Polymers as Biomaterials 3 s.h.
052:098 Individual Investigations 1-3 s.h.
052:222 Advanced Biochemical Engineering 3 s.h.
052:181 Bioseparations 3 s.h.
052:195 Contemporary Topics (biochemical eng. topics) 1-3 s.h.
052:225 Biotechnology of Extremophiles 3 s.h.
052:226 Engineering Aspects of Animal Cell Culture 3 s.h.
053:154 Environmental Microbiology 3 s.h.
(100-level or higher) Advanced Engineering Courses

Science Electives

002:010 Principles of Biology I 4 s.h.
002:011 Principles of Biology II 4 s.h.
061:157 General Microbiology 5 s.h.
061:188 Microbial Biotechnology 3 s.h.
(100-level or higher) Advanced Biological Sciences, Biochemistry, Chemistry, and/or Microbiology courses