

BSE Chemical Engineering curriculum Fall 2006

| | Hours | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|-------|----|----|----|----|----|----|----|----|
| Subjects required by all programs | | | | | | | | | |
| Mathematics 115+,116+,215,216 + | 16 | 4 | 4 | 4 | 4 | | | | |
| Engineering 100, Introduction to Engineering+ | 4 | 4 | | | | | | | |
| Engineering 101, Intro to Computers & Programming + | 4 | | 4 | | | | | | |
| Chemistry 130+ | 3 | 3 | | | | | | | |
| Physics 140/141+, 240 /241+ | 10 | | 5 | | 5 | | | | |
| Humanities and Social Sciences | 16 | 4 | | | | 4 | | 4 | 4 |
| (to include a course in economics) | | | | | | | | | |
| Advanced Science | | | | | | | | | |
| Biology / life science elective ⁽¹⁾ | 3 | | | | | | 3 | | |
| Chem 210, 211, Struct and Reactiv I and Lab + | 5 | | 5 | | | | | | |
| Chem 215,216, Struct and Reactiv II and Lab + | 5 | | | 5 | | | | | |
| Chem 261, Introduction to Quantum Chemistry + | 1 | | | | 1 | | | | |
| Chem 241/2 Introduction to Chemical Analysis | 4 | | | | | 4 | | | |
| Related Technical Subjects | | | | | | | | | |
| Materials elective (MSE 250 or MSE 220)+ | 4 | | | | | | | 4 | |
| Technical Electives ⁽²⁾ | 6 | | | | | | | 4 | 2 |
| Program Subjects | | | | | | | | | |
| ChemE 230, Material & Energy Balances + | 4 | | | 4 | | | | | |
| ChemE 330, Thermodynamics + | 3 | | | | 3 | | | | |
| ChemE 341, Fluid Mechanics + | 4 | | | | 4 | | | | |
| ChemE 342, Heat and Mass Transfer + | 4 | | | | | 4 | | | |
| ChemE 343, Separation Processes + | 3 | | | | | 3 | | | |
| ChemE 344, Reaction Engr and Design + | 4 | | | | | | 4 | | |
| ChemE 360, ChemE Lab I + | 4 | | | | | | 4 | | |
| ChemE 460, ChemE Lab II | 4 | | | | | | | | 4 |
| ChemE 466, Process Dynamics and Control | 3 | | | | | | | 3 | |
| ChemE 487, Chem Proc Sim and Design | 4 | | | | | | | | 4 |
| | 37 | | | | | | | | |
| Free Electives | 10 | | | 3 | | | 4 | | 3 |
| Total | 128 | 15 | 18 | 16 | 17 | 15 | 15 | 15 | 17 |

(1) See department for list of courses that satisfy the Biology/Life Science elective requirement.

(2) Technical electives must include a minimum of 2 credits of engineering elective, with the other 4 credits coming from engineering electives, advanced science, or advanced math courses. See department for list of courses that meet the engineering electives, advanced science and advanced math requirements. At least one course must be outside of Chemical Engineering. Engineering courses are to be at the 200 or higher level. Courses in AOSS are not considered engineering courses for this purpose. See department for other exceptions.

(+) Students must earn a "C-" or better in prerequisite courses indicated by the (+)

