CORROSION ENGINEERING, CO-OP OPTION, BS

Bachelor of Science in Corrosion Engineering with Co-op (425005BS)

This option of the undergraduate program in Corrosion Engineering includes a cooperative education component.

The following information has official approval of the Department of Chemical and Biomolecular Engineering and The College of Engineering, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

1st Year

Fall Semester
- 3150:151 Principles of Chemistry I \(^1\) 3
- 3150:152 Principles of Chemistry I Laboratory 1
- 3300:112 English Composition I \(^1, 2\) 3
- 3450:221 Analytic Geometry-Calculus I \(^1\) 4
- 4200:101 Tools for Chemical Engineering 2
- 4200:110 Project Management and Teamwork I 1
- Hours 14

Spring Semester
- 3150:153 Principles of Chemistry II \(^1\) 3
- 3150:154 Qualitative Analysis 2
- 3450:222 Analytic Geometry-Calculus II \(^1\) 4
- 4200:121 Chemical Engineering Computations 2
- Second Writing Course \(^1, 3\) 3
- General Education or Honor Distribution \(^4\) 3
- Hours 14

2nd Year

Fall Semester
- 3150:263 Organic Chemistry Lecture I 3
- 3150:265 Organic Chemistry Laboratory I 2
- 3450:223 Analytic Geometry-Calculus III \(^1\) 4
- 3650:291 Elementary Classical Physics I \(^1\) 4
- 4200:210 Project Management and Teamwork II 1
- 4250:200 Material and Energy Balances for Corrosion Engineers 4
- Hours 18

Spring Semester
- 3150:264 Organic Chemistry Lecture II 3
- 3450:335 Introduction to Ordinary Differential Equations 3
- 3650:292 Elementary Classical Physics II \(^1\) 4
- 4200:225 Equilibrium Thermodynamics 4
- 4200:305 Materials Science 2
- Hours 16

Summer Semester
- 4100:300 Cooperative Education Work Period (Possible) 0

3rd Year

Fall Semester
- 4200:310 Project Management and Teamwork III 1
- 4200:321 Transport Phenomena 3
- 4250:300 Fundamentals of Aqueous Corrosion 3
- 4250:301 Aqueous Corrosion Lab I 1
- 4300:201 Statics 3
- 4400:307 Basic Electrical Engineering 4
- Hours 15

Spring Semester
- 4100:301 Cooperative Education Work Period 0
- Hours 0

Summer Semester
- 4300:202 Introduction to Mechanics of Solids 3
- General Education or Honors Distribution \(^4\) 3
- Hours 6

4th Year

Fall Semester
- 4100:302 Cooperative Education Work Period 0
- Hours 0

Spring Semester
- 3150:424 Analytical Chemistry II 3
- 3250:244 Introduction to Economic Analysis 3
- 4250:305 Aqueous Corrosion Prevention 3
- 4250:306 Aqueous Corrosion Lab II 1
- 3100:xxx/3150:xxx Biology or Chemistry Elective 3
- General Education or Honors Distribution \(^4\) 3
- Hours 16

Summer Semester
- 4100:403 Cooperative Education Work Period 0
- Hours 0

5th Year

Fall Semester
- 4200:410 Project Management and Teamwork IV 1
- 4250:310 Fundamentals of Dry Corrosion 3
- 4250:311 High Temperature Corrosion Lab 1
- 4250:440 Corrosion Engineering Design I 3
- 4250:xxx Corrosion Engineering Elective 3
- General Education or Honors Distribution \(^4\) 3
- Hours 14

Spring Semester
- 4250:441 Corrosion Engineering Design II 3
- 4250:xxx Corrosion Engineering Elective 3
- 4xxx:xxx Design Elective 4
- 4xxx:xxx Design Elective 4
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1. Honors sections may be available; check the schedule of classes.
2. The Chemical and Biomolecular Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
3. Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
4. Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.