

B.S. in Chemical Engineering

Academic Program Guide for **Transfer Students** (Effective Fall 2019) Department of Chemical Engineering (savelski@rowan.edu)

Students who entered Rowan University prior to Fall 2018 should follow the guide for their program and start year in consultation with their advisor.

Rowan University Graduation Requirements for all Majors / Degrees

- Students must complete at least 120 semester hours (sh) of coursework that apply to their Rowan University degree.
- Students must have a cumulative GPA of at least 2.0 in Rowan University coursework. (Transfer courses/credit do not count toward the RU GPA.)
- A minimum of 30 sh of coursework must be completed at/through Rowan University.
- Only grades of "D-" or above may apply to graduation/degree requirements. (Some programs may set higher minimums.)
- Students must apply for graduation and should do so for the term in which they will complete all program requirements.

Program-Specific Graduation Requirements for this Major / Degree

- Students must receive a grade of C- or better in several of the courses satisfying Major requirements.

Non-Program Courses (37 sh)

Courses in this section cannot be in the major department.

| Course # | Course Name | Course Attributes / Notes | Sem/Yr | Grade | Credits |
|------------------------|--------------------------------------|--|--------|-------|---------|
| MATH 01130 | Calculus I | Satisfies General Education Math | | | 4 |
| CHEM 06100 | Chemistry I | Satisfies General Education Lab Science | | | 4 |
| CHEM 06101 | Chemistry II | | | | 4 |
| | Computer Programming Elective | | | | 3 |
| | Composition I | | | | 3 |
| | General Education Elective | Electives must be chosen to satisfy the following general education and Rowan Experience requirements: 2 HHL, 2 SBS, ACE, M/G, LIT | | | 3 |
| | General Education Elective | | | | 3 |
| | General Education Elective | | | | 3 |
| | General Education Elective | | | | 3 |
| PHYS 00220 | Introductory Mechanics | | | | 4 |
| | Approved Biological Science Elective | Examples: BIOL 01110, BIOL 01113, BIOL 10211, BIOL 10210 | | | 3 |
| Subtotal: 37 sh | | | | | |

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Major Requirements (93 sh)

SUMMARY OF MAJOR REQUIREMENTS

- 37 sh of Foundational Courses
 - 27 sh of Mid-Level Courses
 - 17 sh of Upper-Level Courses
 - 12 sh of Chemical Engineering Electives
-
- 93 sh total

FOUNDATIONAL COURSES

| Course # | Course Name | Course Designations / Notes | Sem/Yr | Grade | Credits |
|-----------------|--------------------------------------|--|--------|-------|---------|
| ENGR 01101 | Freshman Engineering Clinic I | Satisfies Rowan Seminar Requirement | | | 2 |
| ENGR 01102 | Freshman Engineering Clinic II | | | | 2 |
| | Sophomore Engineering Clinic I | Satisfies General Education Composition II | | | 4 |
| | Sophomore Engineering Clinic II | Satisfies General Education Public Speaking | | | 4 |
| CHE 06201 | Principles of Chemical Processes I | | | | 2 |
| CHE 06202 | Principles of Chemical Processes II | | | | 2 |
| CHE 06241 | Chemical Engineering Fluid Mechanics | | | | 2 |
| CHEM 07200 | Organic Chemistry I | | | | 4 |
| | Approved Chemistry Elective | Examples: CHEM 07201; CHEM 07202, CHEM 09249 | | | 3 |
| MATH 01131 | Calculus II | | | | 4 |
| MATH 01230 | Calculus III | | | | 4 |
| MATH 01235 | Math for Engineering Analysis | | | | 4 |
| Subtotal: 37 sh | | | | | |

MID-LEVEL COURSES

| Course # | Course Name | Course Designations / Notes | Sem/Yr | Grade | Credits |
|-----------------|---------------------------------|-----------------------------|--------|-------|---------|
| ENGR 01303 | Junior Eng. Clinic I & II | | | | 4 |
| CHE 06309 | Process Fluid Transport | | | | 2 |
| CHE 06310 | Chemical Eng. Thermodynamics I | | | | 3 |
| CHE 06311 | Heat Transfer Processes | | | | 3 |
| CHE 06312 | Separation Processes I | | | | 2 |
| CHE 06314 | Separation Processes II | | | | 4 |
| CHE 06315 | Chemical Eng. Thermodynamics II | | | | 3 |
| CHE 06316 | Chemical Reaction Engineering | | | | 4 |
| CHE 06381 | Chemical Eng. Materials | | | | 2 |
| Subtotal: 27 sh | | | | | |

UPPER-LEVEL COURSES

| Course # | Course Name | Course Designations / Notes | Sem/Yr | Grade | Credits |
|-----------------|--|-----------------------------|--------|-------|---------|
| CHE 06401 | Chemical Process Component Design | | | | 4 |
| CHE 06403 | Unit Operations Experimental Design & Analysis | | | | 3 |
| CHE 06405 | Process Dynamics and Controls | | | | 3 |
| CHE 06406 | Chemical Plant Design | | | | 3 |
| ENGR 01403 | Senior Engineering Clinic I & II | Satisfies WI requirement | | | 4 |
| Subtotal: 17 sh | | | | | |

CHEMICAL ENGINEERING ELECTIVES

| Course # | Course Name | Course Attributes / Notes | Sem/Yr | Grade | Credits |
|-----------------------|-------------|---------------------------|--------|-------|---------|
| <input type="radio"/> | | | | | 3 |
| <input type="radio"/> | | | | | 3 |
| <input type="radio"/> | | | | | 3 |
| <input type="radio"/> | | | | | 3 |
| Subtotal: 12 sh | | | | | |

Total Program Credits Required for this Major / Degree: 130 SH