



UNIVERSITY OF  
**SOUTH CAROLINA**

Transfer Pathway  
Clafin University -to-USC Columbia  
**B.S.E. in Chemical Engineering**

**FIRST YEAR (Take at Clafin)**

**Fall Semester**

<b>Clafin University Course</b>	<b>USC Chemical Engineering Course</b>
ENGL 101 Composition I	ENGL 101 Critical Reading and Composition
CHEM 121 General Chemistry I	CHEM 111 General Chemistry + CHEM 111 General Chemistry Lab
BIOL 121 General Biology I	Technical Elective
MATH 201 Calculus I	MATH 141 Calculus I
UNIV 101 Orientation	

**Spring Semester**

<b>Clafin University Course</b>	<b>USC Chemical Engineering Course</b>
ENGL 102 Composition II	ENGL 102 Rhetoric & Composition
BIOL 122 General Biology II	Technical Elective
CHEM 122 General Chemistry II	CHEM 112 General Chemistry + CHEM 112 General Chemistry 112 Lab
MATH 202 Calculus II	MATH 142 Calculus II
ENGR 102 Introduction to Engineering	ENCP 101 Introduction to Engineering
UNIV 102 Orientation	

**SECOND YEAR (Take at Clafin)**

**Fall Semester**

<b>Clafin University Course</b>	<b>USC Chemical Engineering Course</b>
CHEM 201 Analytical Chemistry	Chemistry Elective CHEM 322 Analytical Chemistry
CHEM 231 Organic Chemistry I	CHEM 333 Organic Chemistry + Chemistry Lab Elective CHEM 333L
PHYS 203 Principles of Physics I	PHYS 211 Essentials of Physics I + PHYS 211 Essentials of Physics I Lab
MATH 301 Calculus III	
ASMB 201 Assembly	
CHEM 291 Soph. Seminar I	
General Ed (e.g. Culture)	

**Spring Semester**

<b>Clafin University Course</b>	<b>USC Chemical Engineering Course</b>
MATH 212 Linear Algebra	
CHEM 232 Organic Chemistry II	CHEM 334 + Chemistry Lab Elective CHEM 334L
PHYS 204 Principles of Physics II	PHYS 212 Essentials of Physics II + PHYS 212L Essentials of Physics II Lab
CSCI 206 Fundamentals of Program.	Programming Elective CSCE 206 Scientific Applic. Prog.
ASMB 202 Assembly	
CHEM 292 Sophomore Seminar II	
Gen. Ed (e.g. AAAS 101)	Carolina Core GSS elective
++HNTH 391 Honors Thesis I	

**THIRD YEAR (Take at Claflin)**

<b>Fall Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
CHEM 401 Biochemistry I	CHEM 550 Biochem + Chemistry Elective CHEM 550L Career Elective
CHEM 305 Physical Chemistry I	
Gen. Ed (e.g. Culture)	Carolina Core AIU Elective
CHEM 491 Senior Seminar I	
ENGR 215 Statics	Engineering Elective ENCP 200
HNTH 392 Honors Thesis II	
<b>Spring Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
CHEM 304 Inorganic Chemistry	
CHEM 404 Instr. Methods	CHEM 621 Inst. Analysis + CHEM 621L Instr. Analysis Lab Technical Elective
MATH 302 Differential Equations	MATH 242 Elementary Differential Equations
CHEM 306 Physical Chemistry II	Technical Elective
CHEM 492 Senior Seminar II	
ENGR 216 Dynamics	Engineering Elective ENCP 210
HNTH 491 Honors Thesis III	

**FOURTH YEAR (Take at USC)**

<b>Fall Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
	MATH 241 Vector Calculus
	Professional Development Elective (Fall only)
	ECHE 300 Chemical Process Principles
Chemistry Elective (Biophysical)	ECHE 310 Intro. To. Chem. Engr. Thermodynamics
Chemistry Elective (e.g. Polymer)	ECHE 320 Chem. Engr. Fluid Mechanics
Gen Ed (e.g. Global Studies)	Carolina Core GFL or placement test
<b>Spring Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
	ECHE 311 Chem. Engr. Thermodynamics
	ECHE 321 Heat Flow Analysis
CHEM 391 + CHEM 392 Jr Seminar I & II	ECHE 460 Chemical Engineering Lab I (Spring only)
	ECHE 456 Compt. Methods for Engr. Applic.
Gen Ed (e.g. Global Studies)	Liberal Arts elective

**FIFTH YEAR (Take at USC)**

<b>Fall Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
	ECHE 430 Chemical Engineering Kinetics
	ECHE 440 Separation Process Design (Fall only)
	ECHE 461 Chemical Engineering Lab II (Fall only)
CHEM 420 Research	ECHE 465 Chem. Proc. Analysis & Design I (Fall only)
	ECHE 550 Chem. Proc. Dynamics & Control (Fall only)
<b>Spring Semester</b>	
<b>Claflin University Course</b>	<b>USC Chemical Engineering Course</b>
	ECHE 322 Mass Transfer (Spring only)
	ECHE 466 Chem. Process Analysis & Design II (Spring only)
	ECHE 567 Process Safety, Health, & Loss Prev. (Spring only)
	PHIL 325 Engineering Ethics
Gen Ed (e.g. Cultural Humanities)	Carolina Core GHS Elective

This Addendum displays Clafin University courses completed with a “C” or higher that USC CEC accepts as transfer credit in this transfer pathway.

Revised August 2024.