

Dual-Degree Engineering Program Suggested Courses*: **Chemistry and Ceramic Engineering**

Year 1 (at Coastal Carolina University)

Fall (17 credits)

3- ENGL 101	Composition
4- MATH 160	<u>Applied Calculus 1</u>
3- CHEM 111	<u>General Chemistry 1</u>
1- CHEM 111L	<u>General Chemistry 1 Lab</u>
3- ENGR 101	Introduction to Engineering (comm., intensive)
3- FLAN 130	Foreign Language, Intermediate Level

Spring (15 credits)

3- ENGL 102	Composition and Literature
4- MATH 161	<u>Applied Calculus 2</u>
3- CHEM 112	<u>General Chemistry 2</u>
1- CHEM 112L	<u>General Chemistry 2 Lab</u>
3- PHYS 211	<u>Essentials of Physics 1</u>
1- PHYS 211L	<u>Essentials of Physics 1 Lab</u>

Year 2 (at Coastal Carolina University)

Fall (15 credits)

4- MATH 260	<u>Applied Calculus 3</u>
3- PHYS 212	<u>Essentials of Physics 2</u>
1- PHYS 212L	<u>Essentials of Physics 2 Lab</u>
3- CHEM 150	<u>Chemistry Seminar</u>
3- CHEM 321	Quantitative Analysis
1- CHEM 321L	Quantitative Analysis Lab

Summer I (4 credits)

3- CHEM 331	Organic Chemistry 1
1- CHEM 331L	Organic Chemistry 1 Lab

Spring (14-15 credits)

3- MATH 320	Elem. Differential Equations
<u>MATH 242 (3) or PHYS 330 (4)</u>	
3- CHEM 422	Instrumental Analysis
1- CHEM 422L	Instrumental Analysis Lab
1- CHEM 399	Independent Study (Research)
3- HIST 101/2, HIST 202, PHIL 101/2	

Summer II (4 credits)

3- CHEM 332	Organic Chemistry 2
1- CHEM 332L	Organic Chemistry 2 Lab

Year 3 (at Coastal Carolina University)

Fall (17 credits)

3- CHEM 351	Biochemistry I
1- CHEM 351L	Biochemistry I Lab
3- CHEM 441	Physical Chemistry 1
1- CHEM 441L	Physical Chemistry 1 Lab
3- ENGL 200, ENGL 287/8	
3- ARTH 105/6, ARTS 103/4, ENGL 201, MUS 110, THEA 101, THEA 210	

These courses will be granted from Clemson to fulfill CCU Chemistry Major

3- ECON 111, HPRO 121, EXSS 122, RSM 120, PSYC 101, SOC 101 (Xfr back Clemson's SST)

3- CHEM 499 **Undergraduate Research (Xfr back from Clemson by doing Undergraduate Research)**

Spring (14 credits)

3- CHEM 411	Inorganic Chemistry
1- CHEM 411L	Inorganic Chemistry Lab
3- CHEM 442	Physical Chemistry 2
1- CHEM 442L	Physical Chemistry 2 Lab
3- ENGL 277, GEOG 121, HIST 111/2, HON 101, POLI 101, RELG 103 (CCA focus)	
3- HIST 201, POLI 201	

Year 1 (at Clemson University)

Fall (16 credits)

2- CES 102	Engineering Disciplines and Skills
4- CH 101	General Chemistry
3- ENGL 103	Accelerated Composition
4- MTHSC 106	Calculus of One Variable I
3- Arts & Humanities Requirement	<i>or</i>
3- Social Science Requirement	

Spring (16 credits)

4- CH 102	General Chemistry
2- ENGR 130	Engineering Fundamentals
4- MTHSC 108	Calculus of One Variables II
3- PHYS 122	Physics with Calculus I
3- Arts & Humanities Requirement	<i>or</i>
3- Social Science Requirement	

Year 2 (at Clemson University)

Fall (16 credits)

3- C M E 210	Introduction to Material Science
4- MTHSC 206	Calculus of Several Variables
3- PHYS 221	Physics with Calculus II
6- Arts & Humanities Requirement	<i>or</i>
6- social Science Requirement	

Spring (16 credits)

1- C M E 241	Metrics Lab.
2- E G 209	Intro. to Engr./Computer Graphics
3- E M 201	Engineering Mechanics: Statics
4- MTHSC 208	Intro. to Ordinary Differential Equations
3- TEXT 324	Textile Statistics
3- Arts & Humanities Requirement	<i>or</i>
3- Social Science Requirement (SST Focus)	

Year 3 (at Clemson University)

Fall (15 credits)

3- C M E 319	Materials Processing I
3- C M E 326	Thermodynamics of Materials
3- C M E 327	Transport Phenomena
3- COMM 250	Public Speaking
3- ENGL 314	Technical Writing

Spring (17 credits)

3- C M E 328	Phase Diagrams for Material Proc. & Application
2- C M E 342	Structure/Property Lab.
3- C M E 361	Process. Of Metals and Composites
3- C M E 422	Mechanical Behavior of Materials
3- I E 384	Engineering Economic Analysis
3- PFC 303	Textile Chemistry

Year 4 (at Clemson University)

Fall (16 credits)

3- C M E 402	Solid State Materials
3- C M E 413	Noncrystalline Materials
3- C M E 432	Manufacturing Processes and Systems
1- C M E 441	Manufacturing Lab.
3- PFC 415	Intro. to Polymer Science and Engr.
3- Research Requirement	

Spring (13 credits)

3- C M E 407	Senior Capstone Design
3- C M E 416	Electronic Properties of Materials
3- C M E 424	Optical Materials and Applications
3- C M E 433	Combustion Systems and Environment Emissions
1- C M E 445	Practice of Materials Engineering

Red text → Courses that fulfill CCU Core Requirement

Red text → Courses that fulfill CCU Foundation Requirement

Red text → Courses that fulfill CCU Major Requirement

Green text → Courses that can be taken at CCU

Taking a few summer Engineering courses at Clemson prior to transferring is HIGHLY recommended.

* based on 2007-2008 CCU Catalog and 2006-2007 Clemson Catalog

CCA → Clemson's Cross-Cultural Awareness Theme

SST → Clemson's Society, Science, Technology Theme