

Chemical (Nanotechnology) Engr.

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
CHE 120	MATH 126	CHE 305	CHE 350	CHE 443	CHE 442	CHE 391	CHE 480
ENGR 102	CHEM 105bL	CHE 330	CHE 444aL	CHE 444bL	CHE 444cL	CHE 460L	CHE 491
MATH 125	WRIT 150	MATH 226	MATH 245	CHE 487	CHE 447	CHE 485	NANOTECH ELECTIVE
CHEM 105aL	GEN ED	PHYS 151L	PHYS 152L	CHEM 430	MASC 350L	WRIT 340	CHEM 453
GEN ED	OPTIONAL ELECTIVE	OPTIONAL ELECTIVE	CHEM 322aL	GEN ED	GEN ED	GEN ED	GEN ED

ENGINEERING

CHE 120: Introduction to Chemical Engineering
CHE 305: Numerical & Statistical Analysis
CHE 330: Chemical Engineering Thermodynamics
CHE 350: Introduction to Separation Processes
CHE 391: Intro. to Nanotechnology Research
CHE 442: Chemical Reactor Design
CHE 443: Viscous Flow
CHE 444aL: Chemical Engineering Lab
CHE 444bL: Chemical Engineering Lab
CHE 444cL: Chemical Engineering Lab
CHE 447: Heat & Mass Transfer in Chemical Engineering Processes
CHE 460L: Chemical Process Dynamics & Control
CHE 480: Chemical Process & Plant Design
CHE 485: Computer-Aided Chemical Process Design
CHE 487: Nanotechnology & Nanoscale Engineering through Chemical Processes
CHE 491: Nanotechnology Research for Undergraduates
ENGR 102: Engineering Freshman Academy
MASC 350L: Nanostructured Materials: Design, Synthesis, & Processing Design
NANOTECH ELECTIVE: Specialized upper division course you choose for your major/specialization.

MATHEMATICS

MATH 125: Calculus I
MATH 126: Calculus II
MATH 226: Calculus III
MATH 245: Mathematics of Phys. & Engr.

SCIENCE

CHEM 105abL: General Chemistry
CHEM 322aL: Organic Chemistry
CHEM 430: Physical Chemistry: Thermodynamics & Kinetics
CHEM 453: Advanced Inorganic Chemistry
PHYS 151L: Mechanics & Thermodynamics
PHYS 152L: Electricity & Magnetism

GENERAL EDUCATION

As a USC Viterbi student your General Education (Gen Ed) curriculum will include courses in the Arts, Humanistic Inquiry and Social Analysis.

WRITING

WRIT 150: Writing & Critical Reasoning
WRIT 340: Advanced Writing

ELECTIVES

Your optional electives are one way to build engineering+ into your curriculum by choosing classes of interest to you.



Courses with this symbol may be satisfied with certain AP, IB or A-Level exams. With each requirement you replace with prior credit, you increase your optional electives, creating more flexibility for you to pursue additional electives and increase your engineering+ education.

This is a simplified version of a complex curriculum with options and choices made between advisor and student. Course choices can vary by semester and adjust to include relevant topics and materials. Although every attempt has been made to ensure accuracy, the program requirements listed in the USC Catalogue supersede any information which may be contained in this or any other publication of any school or department. The information found in this document is not intended for advising purposes. The University reserves the right to change its policies, rules, regulations, requirements and course offerings at any time.