

# **Program Overview**

This agreement establishes a plan whereby an undergraduate student will attend Morehouse College for approximately three (3) academic years and the University of Southern California Viterbi School of Engineering for approximately two (2) academic years. After being admitted and satisfying the academic requirements of the two institutions, the student will be awarded a Bachelor's degree from Morehouse College and a Bachelor's degree from the University of Southern California Viterbi School of Engineering, provided the required core courses are completed.

## Admission Guidelines

To be competitive for admission, the student is expected to:

- i. earn a minimum overall GPA of 3.0 showing demonstrated success in math and science
- ii. complete required core courses prior to enrolling at USC
- iii. be in good academic and judicial standing at Morehouse College

Applicants must complete the USC application process for admission. Admission requirements for students participating in the 3+2 Program with Morehouse College are developed by the USC Viterbi School and may change year to year. Applicants are strongly encouraged to visit <u>http://viterbiadmission.usc.edu</u> for additional admission information.

## Residency

It is expected that students applying for this program have attended Morehouse College for three consecutive years prior to admission to USC. Students apply for the 3+2 Program during their third year. If a student has attended Morehouse College for four (4) academic years, they may be considered for the 3+2 Engineering Program provided they have met all of the admission requirements for the 3+2 Engineering Program, and they will not receive a Bachelor's degree from Morehouse College School until they have completed the engineering degree requirements at USC. All students applying should be aware that they may not qualify for federal financial aid if they received federal financial aid for four (4) years at Morehouse College. All students must complete a minimum of forty-eight (48) units in residence at USC.

## Core Curriculum

The following sections include the engineering degrees awarded by USC through the 3+2 Engineering Program with Morehouse College, including required courses for each major. In order to complete the 3+2 Engineering Program in two years at USC, courses listed below should be completed prior to USC enrollment. In addition to the courses listed below, students must satisfy all General Education requirements at Morehouse College prior to enrollment at USC, with the exception of Writing 340 (Advanced Writing) which must be taken at USC. Only grades of a "C" or better will transfer to the USC Viterbi School of Engineering.



It is strongly recommended that Morehouse College students participating in this program consult the current academic handbook for the USC Viterbi School of Engineering and the USC Catalogue relative to their progress in the program and establish contact with the USC Viterbi Admission & Student Affairs Office as soon as they become interested in this program.

Properly articulated, the courses listed below will satisfy requirements at the USC Viterbi School of Engineering for the respective majors. Please consult the 3+2 Program Student Guide (below) for specific Morehouse College course numbers. Please note - all coursework taken prior to enrollment at USC is subject to review to determine admission eligibility for the 3+2 Engineering Program at USC.

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 University reserves the right to change its policies, rules, regulations, requirements and course offerings at any time.



# Morehouse College 3+2 Program Student Guide

Below are the courses students should take at Morehouse College based on their intended major at the USC Viterbi School of Engineering.

#### Aerospace & Mechanical Engineering

Completion of Statics and Dynamics is strongly recommended prior to enrolling at USC.

Degree Program	MATH	CHEMISTRY	PHYSICS	ADDITIONAL COURSES*	COMPUTER PROGRAMMING
Aerospace Engineering, B.S.					
Mechanical Engineering, B.S.	HMTH 161,	HCHE 111G + 111LG	HPHY 154 + 360, 253 + 254	Statics	MATLAB
Mechanical	162, 263, 321	11110		Dynamics	
Engineering (Petroleum) , B.S.					

#### Astronautical Engineering

Completion of Statics is strongly recommended prior to enrolling at USC.

Degree Program	MATH	CHEMISTRY	PHYSICS	ADDITIONAL COURSES*	COMPUTER PROGRAMMING
Astronautical Engineering, B.S.	HMTH 161, 162, 263, 321	HCHE 111G + 111LG	HPHY 154 + 360, 253 + 254	Statics	MATLAB

#### Biomedical Engineering

Biomedical Students (all degree programs) may consult the Viterbi School of Engineering for possible Biology course recommendations.

Degree Program	CHEMISTRY	PHYSICS	MATH	COMPUTER PROGRAMMING	
Biomedical Engineering, B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab, Organic Chemistry II + lab				
Biomedical Engineering (Molecular-Cellular), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab, Organic Chemistry II + lab	HPHY 154 + 360, 253 + 254	HMTH 161, 162, 263, 321	MATLAB	
Biomedical Engineering (Electrical), B.S	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab				
Biomedical Engineering (Mechanical), B.S.*	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab				

\*Biomedical/Mechanical students are advised to complete Statics prior to enrolling at USC.



# **Chemical Engineering**

The Chemical Engineering degrees listed below cannot normally be completed in two years. Usually, at least one or two additional semesters is needed to complete the degree. Chemical Engineers who plan to complete the Chemistry courses listed here should contact the Viterbi School of additional chemistry recommendations.

Degree Program	CHEMISTRY	PHYSICS	MATH	COMPUTER PROGRAMMING
Chemical Engineering, B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab, Organic Chemistry II + lab			
Chemical Engineering (Biochemical), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab			
Chemical Engineering (Environmental), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab			
Chemical Engineering (Nanotechnology), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab	HPHY 154 + 360, 253 + 254	HMTH 161, 162, 263, 321	MATLAB
Chemical Engineering (Petroleum), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab			
Chemical Engineering (Polymers/Materials Science), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab, Organic Chemistry II + lab			
Chemical Engineering (Sustainable Energy), B.S.	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + lab, Organic Chemistry II + lab			



#### Civil & Environmental Engineering

The *Civil Engineering, B.S.* and *Civil Engineering (Structural), B.S.* degree programs can not normally be completed in two years unless Statics, Strength of Materials, and Dynamics are completed prior to enrolling at USC.

Degree Program	BIOLOGY	CHEMISTRY	Additional Courses	PHYSICS	MATH	COMPUTER PROGRAMMING
Civil Engineering, B.S.	N/A	HCHE 111G + 111LG	Statics, Strength of Materials, & Dynamics			
Civil Engineering (Construction), B.S.	N/A	HCHE 111G + 111LG	Statics, Strength of Materials, & Dynamics			
Civil Engineering (Water Resources), B.S.	N/A	HCHE 111G + 111LG	Statics, Strength of Materials, & Dynamics			
Civil Engineering (Environmental), B.S.	General Biology II: Cell Biology & Physiology + Iab	HCHE 111G + 111LG, 112G + 112LG + CCHE 112	Statics, Strength of Materials, & Dynamics	HPHY 154 + 360, 253 + 254	HMTH 161, 162, 263, 321	MATLAB
Civil Engineering (Structural), B.S.	N/A	HCHE 111G + 111LG	Statics, Strength of Materials, & Dynamics			
Environmental Engineering, B.S.*	General Biology II: Cell Biology & Physiology + Iab	HCHE 111G + 111LG, 112G + 112LG + CCHE 112, Organic Chemistry I + Iab	Statics			

\*Environmental Engineering students may need to take one additional course during the summer term at USC



## **Computer Engineering & Computer Science**

The Computer Engineering & Computer Science, B.S. degree program can not normally be completed in two years unless students pass the Computer Science Challenge exam that allows a student to be waived from taking USC's CSCI 103 (Intro to Programming).

Degree Program	MATH	SCIENCE	COMPUTER PROGRAMMING
Computer Engineering/Computer Science, B.S. *	HMTH 161, 162, 263, Linear Algebra	HPHY 154 + 360, 253 + 254	Students are strongly recommended to take a C++ programming course. Doing so may help prepare them to take the Comp. Sci. Department's Challenge Exam upon enrollment at USC.
Computer Science, B.S.	HMTH 161, 162, 263, Linear Algebra	HPHY 154 + 360, 253 + 254 Or HCHE 111G + 111LG, 112G + 112LG + CCHE 112 Or General Biology I: Organismal Biology & Evolution + lab	Students are strongly recommended to take a C++ programming course. Doing so may help prepare them to take the Comp. Sci. Department's Challenge Exam upon enrollment at USC.
Computer Science (Games), B.S.	HMTH 161, 162, Linear Algebra	HPHY 154 + 360	Students are strongly recommended to take a C++ programming course. Doing so may help prepare them to take the Comp. Sci. Department's Challenge Exam upon enrollment at USC.

## Electrical Engineering

Degree Program	ee Program MATH		COMPUTER PROGRAMMING
Electrical Engineering	HMTH 161, 162, 263, 321	HPHY 154 + 360, 253 + 254	MATLAB

## Industrial & Systems Engineering

Degree Program	MATH	CHEMISTRY	PHYSICS	COMPUTER PROGRAMMING
Industrial & Systems Engineering (Information Systems), B.S.	HMTH 161, 162, 263,	HCHE 111G +	HPHY 154 + 360, 253 + 254	C++
Industrial & Systems Engineering, (Operations) B.S.	Linear Algebra	111LG		