

# **Program Overview**

This agreement establishes a plan whereby an undergraduate student will attend Hawaii Pacific University 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 Hawaii Pacific University 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 Hawaii Pacific University

Applicants must complete the USC application process for admission. Admission requirements for students participating in the 3+2 Program with Hawaii Pacific University 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 Hawaii Pacific University 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 Hawaii Pacific University 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 Hawaii Pacific University 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 Hawaii Pacific University. 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 Hawaii Pacific University, 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 Hawaii Pacific University 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 Hawaii Pacific University 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 Hawaii Pacific University 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.



# Hawaii Pacific University 3+2 Program Student Guide

Below are the courses students should take at Hawaii Pacific University based on their intended major at the USC Viterbi School of Engineering.

#### Aerospace & Mechanical Engineering

Completion of ENGR 2600 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.	MATH 2214, 2215, 2216,	CHEM 2050 +	PHYS 2050 + 2051, PHYS 2052 + 2053,	ENGR 2600	MATLAB
Mechanical	3307	2051	PHYS 2054 + 2055	Dynamics	
Engineering (Petroleum) , B.S.					

#### Astronautical Engineering

Completion of ENGR 2600 is strongly recommended prior to enrolling at USC.

Degree Program	MATH	CHEMISTRY	PHYSICS	ADDITIONAL COURSES*	COMPUTER PROGRAMMING
Astronautical Engineering, B.S.	MATH 2214, 2215, 2216, 3307	CHEM 2050 + 2051	PHYS 2050 + 2051, PHYS 2052 + 2053, PHYS 2054+2055	ENGR 2600	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.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031, 3032 + 3033			
Biomedical Engineering (Molecular-Cellular), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031, 3032 + 3033	PHYS 2050 + 2051, PHYS 2052 + 2053	MATH 2214, 2215, 2216, 3307	MATLAB
Biomedical Engineering (Electrical), B.S	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031			
Biomedical Engineering (Mechanical), B.S.*	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031			

\*Biomedical/Mechanical students are advised to complete ENGR 2600 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.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031, 3032 + 3033			
Chemical Engineering (Biochemical), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031			
Chemical Engineering (Environmental), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031			
Chemical Engineering (Nanotechnology), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031	PHYS 2050 + 2051, PHYS 2052 + 2053	MATH 2214, 2215, 2216, 3307	MATLAB
Chemical Engineering (Petroleum), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031			
Chemical Engineering (Polymers/Materials Science), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031, 3032 + 3033			
Chemical Engineering (Sustainable Energy), B.S.	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031, 3032 + 3033			



### 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 ENGR 2600, 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	CHEM 2050 + 2051	ENGR 2600, Strength of Materials, & Dynamics		MATH 2214, 2215, 2216, 3307	MATLAB
Civil Engineering (Construction), B.S.	N/A	CHEM 2050 + 2051	ENGR 2600, Strength of Materials, & Dynamics			
Civil Engineering (Water Resources), B.S.	N/A	CHEM 2050 + 2051	ENGR 2600, Strength of Materials, & Dynamics	PHYS 2050 +		
Civil Engineering (Environmental), B.S.	General Biology II: Cell Biology & Physiology + Iab	CHEM 2050 + 2051, 2052 + 2053	ENGR 2600, Strength of Materials, & Dynamics	2051, PHYS 2052 + 2053		
Civil Engineering (Structural), B.S.	N/A	CHEM 2050 + 2051	ENGR 2600, Strength of Materials, & Dynamics			
Environmental Engineering, B.S.*	General Biology II: Cell Biology & Physiology + Iab	CHEM 2050 + 2051, 2052 + 2053, 3030 + 3031	ENGR 2600			

\*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. *	MATH 2214, 2215, 2216, Linear Algebra	PHYS 2050 + 2051, PHYS 2052 + 2053	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.	MATH 2214, 2215, 2216, Linear Algebra	PHYS 2050 + 2051, PHYS 2052 + 2053 Or CHEM 2050 + 2051, 2052 + 2053 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.	MATH 2214, 2215, Linear Algebra	PHYS 2050 + 2051	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	МАТН	PHYSICS	COMPUTER PROGRAMMING
Electrical Engineering	MATH 2214, 2215, 2216, 3307	PHYS 2050 + 2051, PHYS 2052 + 2053, PHYS 2054 + 2055	MATLAB

#### Industrial & Systems Engineering

Degree Program	MATH	CHEMISTRY	PHYSICS	COMPUTER PROGRAMMING
Industrial & Systems Engineering (Information Systems), B.S.	MATH 2214, 2215,	CHEM 2050 +	PHYS 2050 + 2051, PHYS	C++
Industrial & Systems Engineering, (Operations) B.S.	2216, Linear Algebra	2051	2052 + 2053	