

Santa Clara University

School of Engineering

For use by Transfer Applicants

TRANSFER CREDIT PLANNER CHECK-SHEET

*Admission recommendations

University Core Requirement Course Completed or IP (In Progress)

FOUNDATIONS

- Critical Thinking & Writing 1*
Critical Thinking & Writing 2*
Cultures & Ideas 1
Cultures & Ideas 2
Mathematics* Satisfied within major requirements at SCU
Religion Theology & Culture 1
(Students transferring with 30 or more semester units (or 44 or more quarter units) of transfer credit will be exempt from completing one RTC Core requirement)

EXPLORATIONS

- Ethics
Civic Engagement Must be completed at Santa Clara
Diversity: U.S. Perspectives
Arts Satisfied within major requirements at SCU
Natural Science w/Lab* Satisfied within major requirements at SCU
Social Science
Religion, Theology & Culture 2 Must be completed at Santa Clara
Cultures & Ideas 3
Science, Technology & Society Must be completed at Santa Clara
Religion, Theology & Culture 3 Must be completed at Santa Clara

INTEGRATIONS

- ELSJ Must be completed at Santa Clara University
Advanced Writing Must be completed at Santa Clara University
Pathways Must be completed at Santa Clara University

SCHOOL OF ENGINEERING REQUIREMENTS

(Refer to the School of Engineering website for individual major requirements at: https://www.scu.edu/engineering/undergraduate/degree-programs/)

Engineering School Requirement Course completed or IP (In Progress)

MATHEMATICS*

- Calculus and Analytic Geometry I*
Calculus and Analytic Geometry II*
Calculus and Analytic Geom III/IV
Differential Equations

NATURAL SCIENCE*

- General Chemistry*
Physics w/ Calculus *
Physics w/ Calculus *
Physics w/ Calculus *

ADDITIONAL ENGINEERING MAJOR Requirements

- Bioengineering
Civil Engineering
Computer Science and Engineering
Electrical & Computer Engineering
Electrical Engineering
General Engineering
Mechanical Engineering
Web Design and Engineering

TOTAL SEMESTER UNITS x 1.5 = TOTAL QUARTER UNITS**

**Note: Refer to the chart listing the maximum number of units allowed to transfer (including AP/IB test credit) per major located on the SCU Undergraduate Admission webpage at: http://www.scu.edu/ugrad/transfer/

Santa Clara University

Undergraduate

School of Engineering

College of Alameda Transfer Guide

For use by Transfer Applicants

Use the **[TRANSFER CREDIT PLANNER](#)** to map out your transfer credit.

Thank you for your interest in Santa Clara University! This guide has been designed to help make the course-planning process easier for students who wish to transfer to the School of Engineering at Santa Clara University.

Admission Recommendations for Transfer Students:

School of Engineering:

Bachelor of Science majors: Bioengineering, Civil Engineering, Computer Science & Engineering, Electrical and Computer Engineering, Electrical Engineering, General Engineering, Mechanical Engineering, and Web Design & Engineering

Courses strongly recommended for admission:

- Two English composition courses (*aka: Critical Thinking & Writing 1 & 2*)
- Mathematics: MATH 3A and MATH 3B
- One natural science course with a lab: CHEM 1A
- Two Calculus-based Physics courses: PHYS 4A and PHYS 4B
 - Web Design Engineering majors are not required to complete CHEM 1A, PHYS 4A & 4B. Complete one course in the Natural Science list.
- GPA 3.5

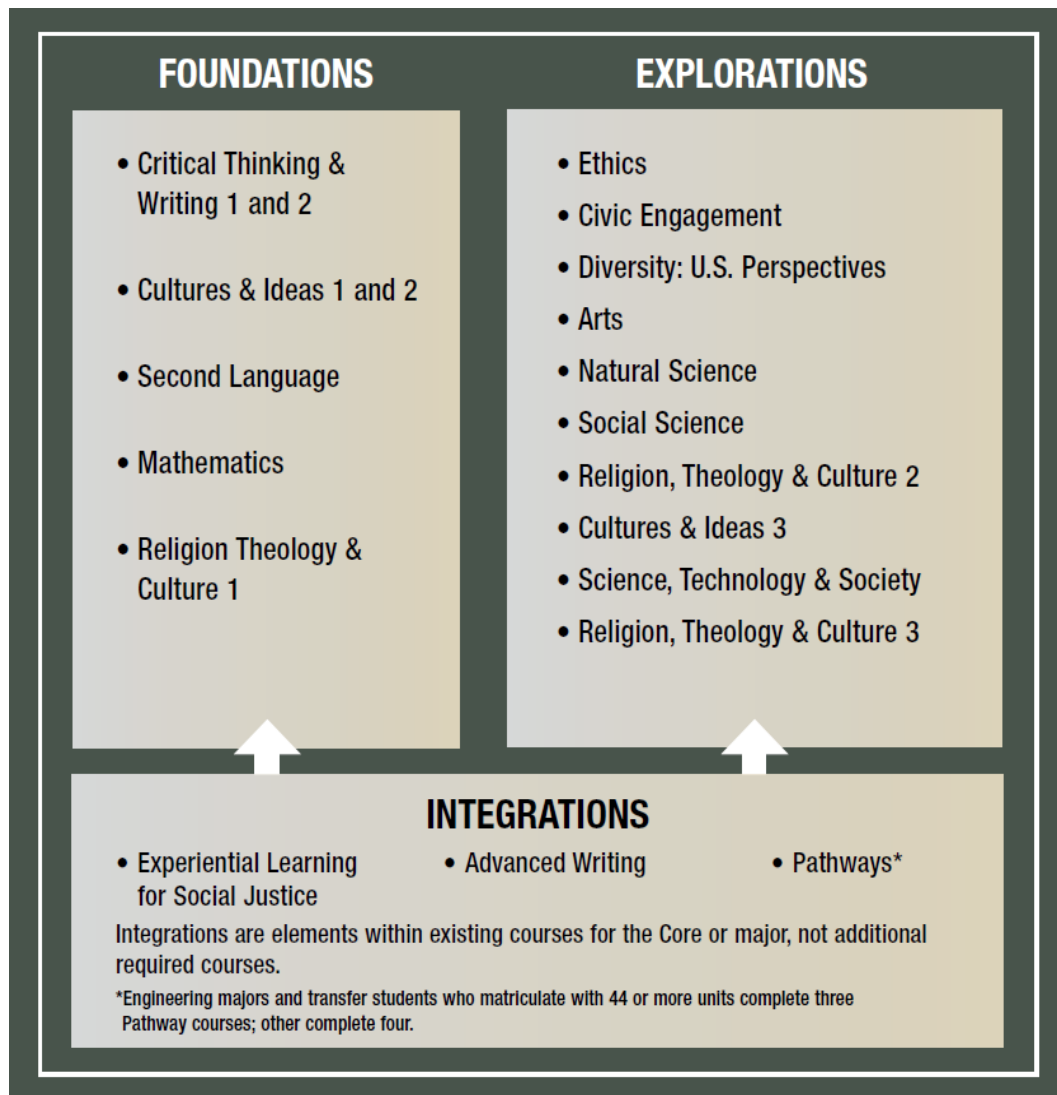
For additional SCU Transfer Admissions information:

<https://www.scu.edu/admission/undergraduate/transfer-students/>

The following information is provided to help transfer students understand and complete additional Santa Clara University Core Curriculum (General Education) requirements.

STRUCTURE OF SANTA CLARA UNIVERSITY GENERAL CORE

Below is a visual representation of Santa Clara University Core Curriculum Requirements. Some Core requirements must be met at SCU: Civic Engagement, Religion, Theology & Culture 2, Science, Technology & Society, Religion, Theology & Culture 3, Experiential Learning for Social Justice, Advanced Writing, and Pathways. Moreover, no courses listed in this guide can fulfill more than one Core requirement.



To learn more about Santa Clara University's Core Curriculum learning goals and objectives, [click here](#).

Note: Current high school students applying as First-Year students may not transfer courses to fulfill Core Critical Thinking & Writing 1 and 2 or Cultures & Ideas 1 and 2, Religion Theology and Culture 1 in addition to the Core requirements listed above that must be met at SCU.

MAXIMUM NUMBER OF TRANSFER UNITS ACCEPTED:

- Santa Clara University is on a quarter system
 - 1 semester unit is equivalent to 1.5 quarter units
- **It is recommended to transfer with 30 or more semester units (44 or more quarter units) of transfer credit (not including AP/IB test credit).**
- Students are allowed to transfer in a maximum of one-half of the total quarter units required to graduate in their specific program. The maximum number includes credit transferred from another institution and Advanced Placement and High-Level International Baccalaureate and University of Cambridge A-Level test credits.

Academic Division	Minimum number of units required for graduation	Maximum transferrable Quarter units	Maximum transferrable Semester unit equivalency
College of Arts and Sciences	175	87.5	58.33
College of Arts and Sciences: <i>Engineering Physics</i>	193	96.5	64.33
Leavey School of Business	175	87.5	58.33
School of Engineering:			
<i>Bioengineering</i>	191	95.5	63.66
<i>Civil Engineering</i>	195	97.5	65
<i>Computer Science & Engineering and General Engineering</i>	189	94.5	63
<i>Electrical Engineering and Electrical & Computer Engineering</i>	190	95	63.33
<i>Mechanical Engineering</i>	192	96	64
<i>Web Design and Engineering</i>	175	87.5	58.33

TRANSFER CREDIT ACCEPTED:

SCU does not give transfer credit for P/NP, CR, or courses with a grade of C- or lower. Grades are not transferable to SCU, only units.

The following courses are not transferrable: most first-year seminars, internships, professional development courses, independent study courses, workshops, most physical education courses, remedial English and remedial mathematics courses.

Santa Clara University only accepts University of California transferable courses. In addition, SCU does not allow the following College of Alameda UC transferrable courses to transfer for credit: Apparel Design and Merchandising, Athletics, some Counseling, English as a Second Language, Health Education, and most Kinesiology courses. To view all College of Alameda's UC transferable courses, visit www.assist.org. **UC transferrable courses not listed in this guide and not listed above as excluded will be accepted as elective units. After acceptance, students may petition a course that received elective credit to be evaluated, and if approved, fulfill a Core and/or major requirement.** Transfer credit evaluations for individual students are completed after admission to SCU. However, the following information will help students evaluate their own course work.

FOUNDATIONS Core requirements

Critical Thinking & Writing 1 and 2 Core Requirement:

To fulfill the Critical Thinking & Writing (CTW) 1 and 2 Santa Clara University Core requirements, a student must complete one course from the Critical Thinking & Writing 1 course list, and one course from the Critical Thinking & Writing 2 course list below. If both requirements are not satisfied prior to enrollment at SCU, students who have completed fewer than 30 semester units (or 44 quarter units) of transfer credit will be required to take the 2-quarter course sequence at SCU. Students who transfer with 30 or more semester units (or 44 or more quarter units) of transfer credit and have fulfilled the CTW 1 but not the CTW 2 requirement will be required to complete an additional course at SCU to satisfy the CTW 2 requirement.

CRITICAL THINKING & WRITING 1: Complete one course from list below.

Admission recommendation: Complete Critical Thinking and Writing 1 Core requirement

Exceptions for taking a course listed below to satisfy CTW 1: Students placed into the 2nd college level English, or who scored a 4 or 5 on the AP English Language exam, may substitute the course placement or the test credit for CTW 1. Students are responsible for submitting the appropriate official AP CollegeBoard Report at the time of acceptance to receive such credit.

College of Alameda Course
ENGL 1A: Composition and Reading

CRITICAL THINKING & WRITING 2: Complete one course from list below.

Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement

College of Alameda Course
ENGL 1B: Composition and Reading
ENGL 5: Critical Thinking in Reading and Writing

CULTURES & IDEAS 1 and 2 Core Requirements:

To fulfill the Santa Clara University Cultures & Ideas 1 and 2 Core Curriculum requirements, a student must complete one course from the Cultures and Ideas 1 list, and one course from the Cultures and Ideas 2 course list. If both requirements are not satisfied prior to enrollment at SCU, students who have completed fewer than 30 semester units (or fewer than 44 quarter units) of transfer credit will be required to take the 2-quarter course sequence at SCU. Students who transfer with 30 or more semester units (or 44 or more quarter units) and fulfilled the Cultures & Ideas 1 but not the Cultures & Ideas 2 requirement, will be required to take one course instead of the 2-course sequence at SCU. **Although it is not listed as an admission recommendation, it is advised to fulfill the Cultures and Ideas 1 and 2 course sequence prior to enrollment at SCU.**

CULTURES & IDEAS 1: Complete one course from list below.

Transfer courses cannot fulfill more than one Santa Clara University Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
ART 2: History of Western Art
ART 3: History of Western Art
ART 4: History of Modern Art
BUS 2: Intro to Business Law
ENGL 30A: Intro to American Lit
ENGL 30B: Introduction to American Literature
HIST 2A: History of European Civilization
HIST 2B: History of European Civilization
HIST 5: History of Mexico
HIST 7A: History of United States to 1877
HIST 7B: History of United States since 1865
HIST 8A: History of Latin Amer Civilization
HIST 8B: History of Latin American Civilization
HIST 17: History of the Mexican American
HIST 18: 20 th Century American Protest Movement
HIST 19: History of California
MUSIC 12A: Intro to Music Lit: Birth of Christ to 1827
MUSIC 12B: Intro to Music Lit: Romantic Period to Present
MUSIC 15A: Jazz Blues and Popular Music in American
MUSIC 15B: Jazz, Blues and Popular Music in American Culture
PHIL 20A: History of Ancient Greek Philosophy
PHIL 20B: History of Modern European Philosophy
POSCI 1: Government and Politics in the United States
POSCI 6: The U.S. Constitution and Criminal Due Process
POSCI 26: U.S. and California Constitution
SOC 1: Introduction to Sociology

CULTURES & IDEAS 2: Complete one course from list below.

Transfer courses cannot fulfill more than one Santa Clara Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
ANTHR 3: Intro to Social and Cultural Anthro
ART 122: World Art
COMM 6: Intercultural Communication
GEOG 2: Cultural Geography
GEOG 3: World Regional Geography
HIST 11: History/Culture of Southeast Asia
HIST 12: History and Culture of Eastern Asia
HIST 53A: History and Culture of the Caribbean and
HIST 53B: History and Culture of the Caribbean and
HUMAN 2: Human Values
HUMAN 13A: Myth, Symbol and Folklore
HUMAN 13B: Myth, Symbol and Folklore
HUMAN 15: Popular Culture
HUMAN 40: Religions of the World
M/LAT 18A: History and Culture of the Caribbean and
M/LAT 18B: History and Culture of the Caribbean and
MUSIC 9: Intro to World Music
PHIL 2: Social and Political Philosophy
PHIL 4: Philosophy of Religion
POSCI 2: Comparative Government
POSCI 3: International Relations

SECOND LANGUAGE

Note: Students accepted in the School of Engineering are not required to fulfill the second language requirement. However, if a student is admitted in the School of Engineering and decides to change schools after enrollment, the student will be required to fulfill the second language requirement at SCU.

MATHEMATICS:

Admission recommendation: Complete MATH 3A & 3B

To fulfill the admission mathematics requirement, complete both MATH 3A and 3B listed below. A score of 4 or 5 on the Advanced Placement Calculus BC exams will satisfy the mathematics Admission recommendations. Engineering majors at SCU require the completion

of more than one math course (see table at the end of this document for additional courses to complete per major).

College of Alameda Course	SCU Course Equivalency
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C Calculus III	MATH 13&14
MATH 3E: Linear Algebra	MATH 53
MATH 3F: Differential Equations	MATH 22 or AMTH 106
MATH 11: Discrete Mathematics	MATH 51 or COEN 19

Note: SCU does not accept remedial mathematics courses. Although a pre-Calculus course is transferrable, it will not fulfill any general core, major or minor requirements.

RELIGION, THEOLOGY & CULTURE 1: Only needed if transferring with less than 30 semester units of transfer credit. Students transferring with more than 30 semester units of transfer credit will be exempt from this requirement.

Students transferring with less than 30 semester units of transfer credit may complete **one course** from the list below to satisfy the RTC 1 Core requirement.

Transfer courses cannot fulfill more than one Santa Clara Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
ENGL 27A: The Bible as Literature

Note: The transferring with more than 30 semester units (or more than 44 quarter units) of transfer credit for the RTC 1 exemption rule does not apply to freshmen applicants.

EXPLORATIONS Core requirements

ETHICS: Complete **one course** from the list below.

College of Alameda Course
PHIL 5: Ethical Problems

CIVIC ENGAGEMENT: Must be completed at Santa Clara University.

DIVERSITY: US Perspectives: Complete one course from list below.

Transfer courses cannot fulfill more than one Santa Clara Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
AFRAM 5: The African American Family in the United States
AFRAM 30: African American History: Africa to 1865
AFRAM 31: African-American History: 1865 – 1945
AFRAM 32: African American History: 1945 to Present
ART 8A: Ethnic Arts of Middle America
ART 8B: Ethnic Arts of Middle America
ASAME 45A: Asian American History to 1945
ASAME 45B: Asian American History from 1945 to the Present
COMM 6: Intercultural Communication
ENGL 16: African American Writers (Poetry)
ENGL 31: Survey of African-American Literature
ENGL 32A: Contemporary Women Writers
ENGL 32B: Contemporary Women Writers
ENGL 79: Introduction to LGBTQ Literature
HIST 17: History of the Mexican American
HIST 19: History of California
HIST 50: African American History
HIST 51: African American History
HIST 52: African American History
HIST 56: Sociology of Women
HUMAN 51A: Latin American Folklore
HUMAN 51B: Latin American Folklore
HUMAN 60: Intro to LGBTQ Studies
M/LAT 2A: Latin American Folklore
M/LAT 2B: Latin American Folklore
M/LAT 2C: Latin-American Folklore
M/LAT 3: Survey of Latin American/Chicano Authors
POSCI 8: Law and Democracy
SOC 2: Social Problems
SOC 3: Sociology of Women
SOC 5: Minority Groups

ARTS

School of Engineering students will automatically fulfill the Arts by taking required courses within their major at SCU. However, if a student is admitted in the School of Engineering and decides to change schools after enrollment, the student will be required to fulfill the ARTS requirement by taking a course(s) at SCU. Refer to the College of Arts & Sciences or Leavey School of Business transfer guides for a list of courses that could satisfy the Arts core requirement.

NATURAL SCIENCE (WITH A LAB) Core Requirement: *Complete one course from list below.*

Admission recommendation: Complete CHEM 1A; PHYS 4A & 4B

(Note: Web Design & Engineering major completes one course to satisfy Natural Science core requirement. It is recommended to complete CHEM 1A)

To satisfy the Core Natural Science requirement, the course must have a lab component.

Engineering majors at SCU require the completion of more than one science course (see table at the end of this document for additional courses to complete per major).

When a College of Alameda course does not have a direct SCU course equivalent, but fulfills the Natural Science Core requirement, a transfer credit (TRCR) code of TRCR 18 is assigned.

College of Alameda Course	SCU Course equivalency
ANTHR 1/1L: Intro to Physical Anthro w/Lab	ANTH 1
BIOL 1A: General Biology	TRCR 18
BIOL 1B: General Biology	TRCR 18
BIOL 2: Human Anatomy	TRCR 18
BIOL 3: Microbiology	TRCR 18
BIOL 4: Human Physiology	TRCR 18
BIOL 10: Intro to Biology	TRCR 18
CHEM 1A: General Chemistry	CHEM 11
CHEM 1B: General Chemistry	CHEM 12&50
CHEM 30A: Intro to Gen Chemistry	CHEM 11
CHEM 30B: Intro Organic and Biochemistry	TRCR 18
CHEM 50: Beginning Chemistry	TRCR 18
GEOG 1/1L: Physical Geography w/Lab	TRCR 18
GEOG 14: Introduction to Geographic Information Systems	TRCR 18
GEOL 1: Introduction to Physical Geology	TRCR 18
GEOL 2: Introduction to Mineralogy	TRCR 18
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
PHYS 4C: General Physics w/Calc	PHYS 34

SOCIAL SCIENCE: Complete one course from list below.

Transfer courses cannot fulfill more than one Santa Clara Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
ANTHR 2: Intro to Archaeology and Prehistory
ANTHR 3: Intro to Social and Cultural Anthropology
ECON 1: Prin of Economics: Macroeconomics
ECON 2: Prin of Economics: Microeconomics
ECON 5: Intro to Economics
PSYCH 1A: Intro to General Psychology
PSYCH 1B: Intro to General Psychology
SOC 1: Intro to Sociology
SOCSC 125: Statistics for the Social Sciences

RELIGION, THEOLOGY & CULTURE 2: Must be completed at Santa Clara University.**CULTURES & IDEAS 3:** Complete one course from the list below.

Transfer courses cannot fulfill more than one Santa Clara Core requirement. If you already took a course listed below to satisfy a different requirement, you will want to choose a different course to complete.

College of Alameda Course
ANTHR 3: Intro to Social and Cultural Anthro
ART 122: World Art
COMM 6: Intercultural Communication
GEOG 2: Cultural Geography
GEOG 3: World Regional Geography
HIST 11: History/Culture of Southeast Asia
HIST 12: History and Culture of Eastern Asia
HIST 53A: History and Culture of the Caribbean and
HIST 53B: History and Culture of the Caribbean and
HUMAN 2: Human Values
HUMAN 13A: Myth, Symbol and Folklore
HUMAN 13B: Myth, Symbol and Folklore

HUMAN 15: Popular Culture
HUMAN 40: Religions of the World
M/LAT 18A: History and Culture of the Caribbean and
M/LAT 18B: History and Culture of the Caribbean and
MUSIC 9: Intro to World Music
PHIL 2: Social and Political Philosophy
PHIL 4: Philosophy of Religion
POSCI 2: Comparative Government
POSCI 3: International Relations

SCIENCE, TECHNOLOGY & SOCIETY: Must be completed at Santa Clara University.

RELIGION, THEOLOGY & CULTURE 3: Must be completed at Santa Clara University.

INTEGRATIONS Core requirements

EXPERIENTIAL LEARNING FOR SOCIAL JUSTICE: Must be completed at Santa Clara University.

ADVANCED WRITING: Must be completed at Santa Clara University.

PATHWAYS: Must be completed at Santa Clara University.

Transfer students who matriculate with fewer than 44 quarter units (or fewer than 30 semester units) must take 4 courses to fulfill the pathways requirement. However, students transferring in with more than 44 quarter units (or with 30 semester units or more) will complete 3 courses to fulfill the Core Pathways requirement.

ADDITIONAL SCHOOL OF ENGINEERING REQUIREMENTS PER MAJOR

The following courses allow students to complete additional School of Engineering requirements.

SCU COURSE	CoA COURSE	BIOE	CENG	COEN	ECEN	ELEN	ENGR	MECH	WDE
MATH 11	MATH 3A	X	X	X	X	X	X	X	X
MATH 12	MATH 3B	X	X	X	X	X	X	X	X
MATH 13	MATH 3C	X	X	X	X	X	X	X	X
MATH 14	MATH 3C	X	X	X	X	X	X	X	X
MATH 22 or AMTH 106	MATH 3F	X	X	X	X	X	X	X	
MATH 51 or COEN 19	-			X	X				
MATH 53	-			X	X				
PHYS 31	PHYS 4A	X	X	X	X	X	X	X	
PHYS 32	PHYS 4A/4B	X	X	X	X	X	X	X	
PHYS 33	PHYS 4B	X	X	X	X	X	X	X	
PHYS 34	PHYS 4C					X			
CHEM 11	CHEM 1A	X	X	X	X	X	X	X	
ELEN/COEN 21/21L	-			X	X	X	X		
ELEN 50/50L	-	X		X	X	X	X	X	
CENG 41	-		X				X	X	
COEN 10/10L	CIS 6			X	X	X	X		X
COEN 11/11L	CIS 25*			X	X	X			X
COEN 12/12L	-			X	X	X			X

*Student must learn C programming on own

Abbreviations and Links:

[BIOE = Bioengineering](#)

[CENG = Civil, Environmental, and Sustainable Engineering](#)

[COEN = Computer Science and Engineering](#)

[ECEN = Electrical and Computer Engineering](#)

[ELEN = Electrical Engineering](#)

[ENGR = General Engineering](#)

[MECH = Mechanical Engineering](#)

[WDE = Web Design and Engineering](#)

A "-" indicates that an equivalent course has not been approved at time of publication.

BIOENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
CHEM 1B: General Chemistry	CHEM 12&50
<i>No approved course equivalencies at time of publication</i>	CHEM 31, 32 33
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
Engineering:	
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106

CIVIL ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
GEOL 1: Introduction to Physical Geology	CENG 20/20L
Engineering:	
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
<i>No approved course equivalencies at time of publication</i>	CENG 7/7L
<i>No approved course equivalencies at time of publication</i>	CENG 10/10L
<i>No approved course equivalencies at time of publication</i>	CENG 41
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106

COMPUTER SCIENCE & ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
Engineering:	
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
CIS 6: Introduction to Computer Programming	COEN 10/10L
CIS 25: Object-Oriented Programming Using C++	COEN 11/11L (Student must learn C programming on own)
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106
MATH 11: Discrete Mathematics	MATH 51 or COEN 19
MATH 3E: Linear Algebra	MATH 53

ELECTRICAL & COMPUTER ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
Engineering:	
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
CIS 6: Introduction to Computer Programming	COEN 10/10L
CIS 25: Object-Oriented Programming Using C++	COEN 11/11L (Student must learn C programming on own)
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106
MATH 11: Discrete Mathematics	MATH 51 or COEN 19
MATH 3E: Linear Algebra	MATH 53

ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
PHYS 4C: General Physics w/Calc	PHYS 34
Engineering:	
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
<i>No approved course equivalencies at time of publication</i>	CENG 41
CIS 6: Introduction to Computer Programming	COEN 10/10L
CIS 25: Object-Oriented Programming Using C++	COEN 11/11L (Student must learn C programming on own)
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106

GENERAL ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
PHYS 4B: General Physics w/Calc	PHYS 33 (If PHYS 4A & 4B completed, equates to SCU's PHYS 31, 32 & 33)
Engineering:	
<i>No approved course equivalencies at time of publication</i>	CENG 41
<i>No approved course equivalencies at time of publication</i>	CENG 43/43L
CIS 6: Introduction to Computer Programming	COEN 10/10L
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
<i>No approved course equivalencies at time of publication</i>	MECH 10/10L
<i>No approved course equivalencies at time of publication</i>	MECH 11/11L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106

MECHANICAL ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry	CHEM 11
PHYS 4A: General Physics w/Calc	PHYS 31
Engineering:	
<i>No approved course equivalencies at time of publication</i>	CENG 41
<i>No approved course equivalencies at time of publication</i>	ELEN 50/50L
<i>No approved course equivalencies at time of publication</i>	MECH 10/10L
<i>No approved course equivalencies at time of publication</i>	MECH 11
<i>No approved course equivalencies at time of publication</i>	MECH 15/15L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14
MATH 3F: Differential Equations	MATH 22 or AMTH 106

WEB DESIGN AND ENGINEERING MAJOR REQUIREMENTS

College of Alameda Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry (<i>Recommended</i>)	CHEM 11
Engineering:	
CIS 6: Introduction to Computer Programming	COEN 10/10L
CIS 25: Object-Oriented Programming Using C++	COEN 11/11L (Student must learn C programming on own)
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 3A: Calculus I	MATH 11
MATH 3B: Calculus II	MATH 12
MATH 3C: Calculus III	MATH 13&14

Additional notes:

- Consult the current Undergraduate Bulletin for Advanced Placement and High-Level International Baccalaureate test credit equivalencies at:
<https://www.scu.edu/bulletin/undergraduate/chapter-8/AcademicCreditEvaluation.html>

- Consult the Santa Clara University Undergraduate Bulletin for additional requirements in a major. The Bulletin can be found at: <https://www.scu.edu/academics/course-catalogs/undergraduate-bulletin/>
- Once students are admitted to Santa Clara University, they must abide by the policies, regulations and other requirements outlined in the Undergraduate Bulletin for their cohort year.
- **Per SCU policy, transfer credit earned after enrollment cannot satisfy University Core, major or minor requirements.** Refer to the SCU Undergraduate Bulletin for additional transfer credit restrictions.
- This guide is to be used by transfer applicants, not First-Year (aka: freshmen) applicants. Admitted First-Year students must complete the following Core requirements at SCU: Critical Thinking & Writing 1 and 2; Cultures & Ideas 1 and 2; Religion Theology & Culture 1, 2 and 3 (taken in sequence order at SCU); Civic Engagement; Science, Technology & Society; Experiential Learning for Social Justice; Advanced Writing; and four Pathway courses.

For questions regarding transfer credit or test credit, contact the Transfer Record Analyst at: Registrar@scu.edu.

Disclosure: The information contained in this document is to be used as a guide for the purpose of admissions into Santa Clara University. This information is reviewed periodically and the date of the most recent update is noted in the bottom right-hand corner of this guide. Students are responsible to make sure that any courses taken are listed on this guide at the time of actual enrollment. Transferability is not guaranteed and is up to our discretion, largely based upon the Santa Clara University core curriculum in effect at the time of admission.