

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

Chaffey College 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 65A and MATH 65B
- One natural science course with a lab: CHEM 24A
- Two Calculus-based Physics courses: PHYS 45 and PHYS 46
 - Web Design Engineering majors are not required to complete CHEM 24A, PHYS 45 & 46. Complete one course in the Natural Science list.
- GPA 3.5

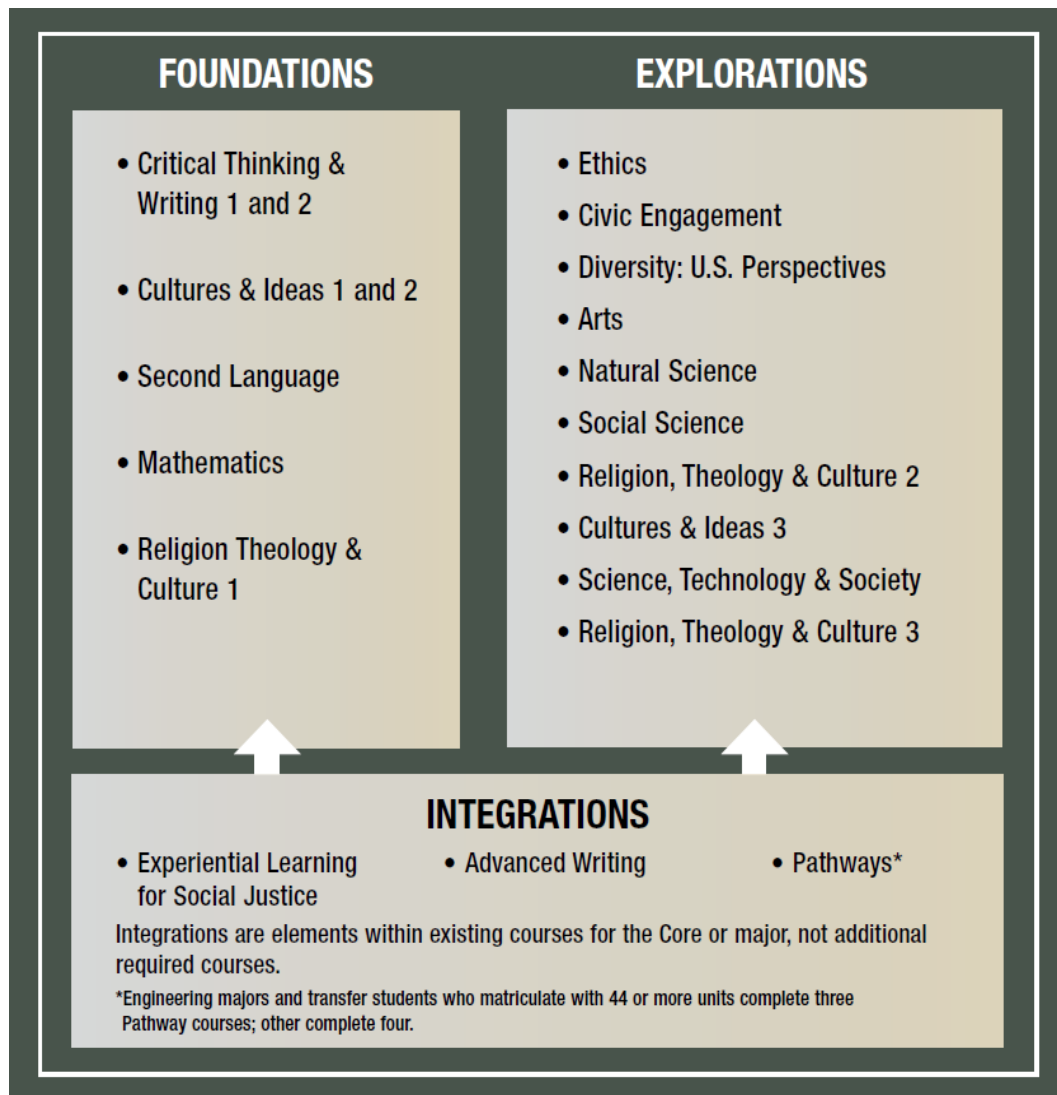
For additional SCU Transfer Admissions information:

<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 Chaffey College UC transferable courses to transfer for credit: Fashion Merchandising, Kinesiology Activity, Lecture, and Team courses. To view all Chaffey College's UC transferable courses, visit www.assist.org. **UC transferable 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.

Chaffey College Course
ENGL 1A: Composition

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

Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement

Chaffey College Course
ENGL 1B: Advanced Composition and Critical Thinking
ENGL 1C: Intro to Literature

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.

Chaffey College Course
ARTH 3: Survey of Western Art from Prehistory through the Middle Ages
ARTH 5: Survey of Western Art from Renaissance to Contemporary
ARTH 9: Art of the Ancient Americas
CINEMA 26: Survey of American Cinema
CJ 1: Introduction to the Criminal Justice System
ECON 7: Economic History of the United States
ENGL 75A: American Literature
ENGL 75B: American Literature
ENGL 80A: Survey of British Literature
ENGL 80B: Survey of British Literature
HIST 5: Early Western Civilizations
HIST 6: Modern Western Civilizations
HIST 16: Westward Movement and the Indian Wars 1840-90
HIST 17: United States History through 1877
HIST 18: United States History from 1865
HIST 19: History of Ethnic Relations in the United States
HIST 20: History of the United States- 1945 to Present
HIST 21: The Sixties in American History
HIST 70: Chicanos- The Common History of Mexico and the United States
HUMAN 5: Arts and Ideas- Antiquity to Renaissance
HUMAN 6: Arts and Ideas- Renaissance to Modern
HUMAN 20: The Holocaust- History and Philosophy
MUSIC 2A: Music History and Literature
MUSIC 2B: Music History and Literature
PHIL 73: Seminar in Contemporary American Philosophy

PS 1: American Politics
PS 2: Intro to Political Science

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.

Chaffey College Course
ANTHRO 3: Intro to Social and Cultural Anthropology
ARTH 7: Arts of Africa, Oceania, and Indigenous North America
ARTH 9: Art of the Ancient Americas
ARTH 11: Survey of Asian Arts
CINEMA 25: Survey of World Cinema
COMSTD 74: Intercultural Communication
DANCE 1: Survey of Dance
ENGL 68: Mythology
ENGL 70A: World Literature
ENGL 70B: World Literature
GEOG 1: World Regional Geography
GEOG 11: Human Geography
HIST 1: World History- Pre Civilization to 1500
HIST 2: World History- 1500 to Present
HIST 4: History of Slavery
HIST 7: History of the Middle East
HIST 9: History of Asian Civilizations I
HIST 10: History of Asian Civilizations II
HIST 12: Asian American History
MUSIC 26: World Music
PHIL 81: Intro to Eastern Philosophy
PS 7: International Relations
PS 10: Comparative Politics
SOC 15: Ethnic and Race Relations: U.S. and Global Perspectives

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 65A and MATH 65B

To fulfill the admission mathematics requirement, complete both MATH 65A and 65B 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).

Chaffey College Course	SCU course equivalency
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 81: Linear Algebra	MATH 53
MATH 85: Differential Equations	MATH 22 or AMTH 106

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.

Chaffey College Course
No approved Chaffey College course equivalencies at time of publication

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.

Note: Students accepted in the Leavey School of Business fulfill the Ethics requirement at SCU. Refer to Leavey School of Business Transfer Guide for specific Core and School requirements.

Chaffey College Course
PHIL 72: Seminar in Ethics

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.

Chaffey College Course
COMSTD 74: Intercultural Communication
ENGL 74: Asian-American Literature
ENGL 76: African-American Literature
ENGL 77: Latino Literature
ENGL 79: Native American Literatures
HIST 12: Asian American History
HIST 19: History of Ethnic Relations in the United States
HIST 25: Women in United States History
HIST 37: California History
HIST 50: African-American History I
HIST 51: African-American History II
HIST 71: Chicanos- The Chicano Minority in the United States
SOC 14: Sociology of Gender
SOC 15: Ethnic and Race Relations- US and Global Perspectives
SOC 25: Intro to Chicano/Latino Studies
SOC 26: Intro to Latin American Studies
SOC 70: Social Problems

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 24A; PHYS 45 & 46s*

(Note: Web Design & Engineering major completes one course to satisfy Natural Science core requirement. It is recommended to complete CHEM24A)

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 Chaffey College 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.

Chaffey College Course	SCU course equivalency
ANTHRO 1/1L: Intro to Physical Anthropology w/ Lab	TRCR 18
ASTRON 35: Planets and the Solar System w/ Lab	TRCR 18
BIOL 1: General Biology	TRCR 18
BIOL 2: Environmental Biology	TRCR 18
BIOL 3: California Natural History	TRCR 18
BIOL 20: Human Anatomy	TRCR 18
BIOL 22: Human Physiology	TRCR 18
BIOL 23/23L: General Microbiology w/ Lab	TRCR 18
BIOL 40: Introduction to Cell and Molecular Biology	TRCR 18
BIOL 62: Biology of Organisms	TRCR 18
BIOL 63: Evolutionary Ecology	TRCR 18
CHEM 7: Chemistry in Everyday Life with Lab	TRCR 18
CHEM 9: Health Science Chemistry	TRCR 18
CHEM 10: Introductory Chemistry	TRCR 18
CHEM 12: Elementary Organic and Biochemistry	TRCR 18
CHEM 24A: General Chemistry I	CHEM 11
CHEM 24B: General Chemistry II	CHEM 12&50
CHEM 70: Quantitative Analysis	TRCR 18
CHEM 76A: Organic Chemistry I	CHEM 31
CHEM 76B: Organic Chemistry II	CHEM 33 (If CHEM 76A & 76B completed, equates to SCU's CHEM 31, 32 & 33)

ESC 1/1L: Earth Science w/ Lab	TRCR 18
ESC 5/5L: Oceanography w/ Lab	TRCR 18
GEOG 4/5: Physical Geography w/ Lab	TRCR 18
GEOL 1: Physical Geology	TRCR 18
GEOL 2: Historical Geology	TRCR 18
PHSCI 10: Survey of Chemistry and Physics	TRCR 18
PHYS 5/6: The Ideas of Physics w/ Lab	TRCR 18
PHYS 20A: Algebra/Trigonometry College Physics I	PHYS 11
PHYS 20B: Algebra/Trigonometry College Physics II	TRCR 18
PHYS 30A: Physics for the Medical and Life Sciences I	PHYS 11
PHYS 30B: Physics for the Medical and Life Sciences II	TRCR 18
PHYS 44: Intro to Motion	PHYS 31
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers III	PHYS 32

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.

Chaffey College Course
ANTHRO 2: Intro to Archaeology
ECON 1: Intro to Economics
ECON 2: Principles of Macroeconomics
ECON 4: Principles of Microeconomics
PS 10: Comparative Politics
PSYCH 1: Intro to Psychology
PSYCH 41: Biological Psychology
PSYCH 80: Research Methods in Psychology
SOC 10: Intro to Sociology
SOC 70: Social Problems
SOC 80: Intro to Research Methods in Sociology

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.

Chaffey College Course
ANTHRO 3: Intro to Social and Cultural Anthropology
ARTH 7: Arts of Africa, Oceania, and Indigenous North America
ARTH 9: Art of the Ancient Americas
ARTH 11: Survey of Asian Arts
CINEMA 25: Survey of World Cinema
COMSTD 74: Intercultural Communication
DANCE 1: Survey of Dance
ENGL 68: Mythology
ENGL 70A: World Literature
ENGL 70B: World Literature
GEOG 1: World Regional Geography
GEOG 11: Human Geography
HIST 1: World History- Pre Civilization to 1500
HIST 2: World History- 1500 to Present
HIST 4: History of Slavery
HIST 7: History of the Middle East
HIST 9: History of Asian Civilizations I
HIST 10: History of Asian Civilizations II
HIST 12: Asian American History
MUSIC 26: World Music
PHIL 81: Intro to Eastern Philosophy
PS 7: International Relations
PS 10: Comparative Politics
SOC 15: Ethnic and Race Relations: U.S. and Global Perspectives

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	CC COURSE	BIOE	CENG	COEN	ECEN	ELEN	ENGR	MECH	WDE
MATH 11	MATH 65A	X	X	X	X	X	X	X	X
MATH 12	MATH 65B	X	X	X	X	X	X	X	X
MATH 13	MATH 75	X	X	X	X	X	X	X	X
MATH 14	MATH 75	X	X	X	X	X	X	X	X
MATH 22 or AMTH 106	MATH 85	X	X	X	X	X	X	X	
MATH 51 or COEN 19	COMPSCI 4			X	X				
MATH 53	MATH 81			X	X				
PHYS 31	PHYS 45	X	X	X	X	X	X	X	
PHYS 32	PHYS 47	X	X	X	X	X	X	X	
PHYS 33	PHYS 46	X	X	X	X	X	X	X	
PHYS 34	-					X			
CHEM 11	CHEM 24A	X	X	X	X	X	X	X	
ELEN/COEN 21/21L	-			X	X	X	X		

ELEN 50/50L	ENGIN 71	X		X	X	X	X	X	
CENG 41	ENGIN 50		X				X	X	
COEN 10/10L	COMPSCI 1 or CISPROG 1			X	X	X	X		X
COEN 11/11L	COMPSCI 2			X	X	X			X
COEN 12/12L	-			X	X	X			X
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

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
CHEM 24B: General Chemistry II	CHEM 12&50
CHEM 76A: Organic Chemistry I	CHEM 31
CHEM 76B: Organic Chemistry II	CHEM 33 (If CHEM 76A & 76B completed, equates to SCU's CHEM 31, 32 & 33)
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers III	PHYS 32
Engineering:	
ENGIN 71: Circuit Analysis	ELEN 50/50L
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106

CIVIL ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33

PHYS 47: Physics for Scientists and Engineers III	PHYS 32
GEOL 1: Physical Geology	CENG 20/20L
Engineering:	
ENGIN 26: Engineering Graphics and CAD	CENG 7/7L
<i>No approved course equivalencies at time of publication</i>	CENG 10/10L
ENGIN 30: Engineering Application of Digital Computation	CENG 15
ENGIN 50: Engineering Statics	CENG 41
<i>No approved course equivalencies at time of publication</i>	CENG 44A/44AL
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106

COMPUTER SCIENCE & ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers III	PHYS 32
Engineering:	
ENGIN 71: Circuit Analysis	ELEN 50/50L
CISPROG 1: Introduction to Computer Programming or COMPSCI 1: Programming Concepts and Methodology I	COEN 10/10L
COMPSCI 2: Programming Concepts and Methodology II	COEN 11/11L
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
COMPSCI 4: Discrete Structures	COEN 19 or MATH 51
COMPSCI 3: Computer Architecture and Organization	COEN 20/20L
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106
MATH 81: Linear Algebra	MATH 53

ELECTRICAL & COMPUTER ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers	PHYS 32
III	
Engineering:	
ENGIN 71: Circuit Analysis	ELEN 50/50L
CISPROG 1: Introduction to Computer Programming or COMPSCI 1: Programming Concepts and Methodology I	COEN 10/10L
COMPSCI 2: Programming Concepts and Methodology II	COEN 11/11L
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
COMPSCI 4: Discrete Structures	COEN 19 or MATH 51
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106
MATH 81: Linear Algebra	MATH 53

ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers	PHYS 32
III	
<i>No approved course equivalencies at time of publication</i>	PHYS 34
Engineering:	
ENGIN 50: Engineering Statics	CENG 41
ENGIN 71: Circuit Analysis	ELEN 50/50L
CISPROG 1: Introduction to Computer Programming or COMPSCI 1: Programming Concepts and Methodology I	COEN 10/10L
COMPSCI 2: Programming Concepts and Methodology II	COEN 11/11L
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12

MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106

GENERAL ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers III	PHYS 32
Engineering:	
ENGIN 50: Engineering Statics	CENG 41
<i>No approved course equivalencies at time of publication</i>	CENG 43/43L
CISPROG 1: Introduction to Computer Programming or COMPSCI 1: Programming Concepts and Methodology I	COEN 10/10L
ENGIN 71: Circuit Analysis	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 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106

MECHANICAL ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I	CHEM 11
PHYS 45: Physics for Scientists and Engineers I	PHYS 31
PHYS 46: Physics for Scientists and Engineers II	PHYS 33
PHYS 47: Physics for Scientists and Engineers III	PHYS 32
Engineering:	
ENGIN 50: Engineering Statics	CENG 41
<i>No approved course equivalencies at time of publication</i>	CENG 43/43L
ENGIN 71: Circuit Analysis	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 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: Calculus III	MATH 13&14
MATH 85: Differential Equations	MATH 22 or AMTH 106

WEB DESIGN AND ENGINEERING MAJOR REQUIREMENTS

Chaffey College Course	SCU course equivalency
Natural Science:	
CHEM 24A: General Chemistry I (<i>Recommended</i>)	CHEM 11
Engineering:	
CISPROG 1: Introduction to Computer Programming or COMPSCI 1: Programming Concepts and Methodology I	COEN 10/10L
COMPSCI 2: Programming Concepts and Methodology II	COEN 11/11L
<i>No approved course equivalencies at time of publication</i>	COEN 12/12L
Mathematics:	
MATH 65A: Calculus I	MATH 11
MATH 65B: Calculus II	MATH 12
MATH 75: 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.