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

Folsom Lake 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 400 and MATH 401
- One natural science course with a lab: CHEM 400
- Two Calculus-based Physics courses: PHYS 411 and PHYS 421
    - Web Design Engineering majors are not required to complete CHEM 400, PHYS 411 & 421. Complete one course in the Natural Science list.

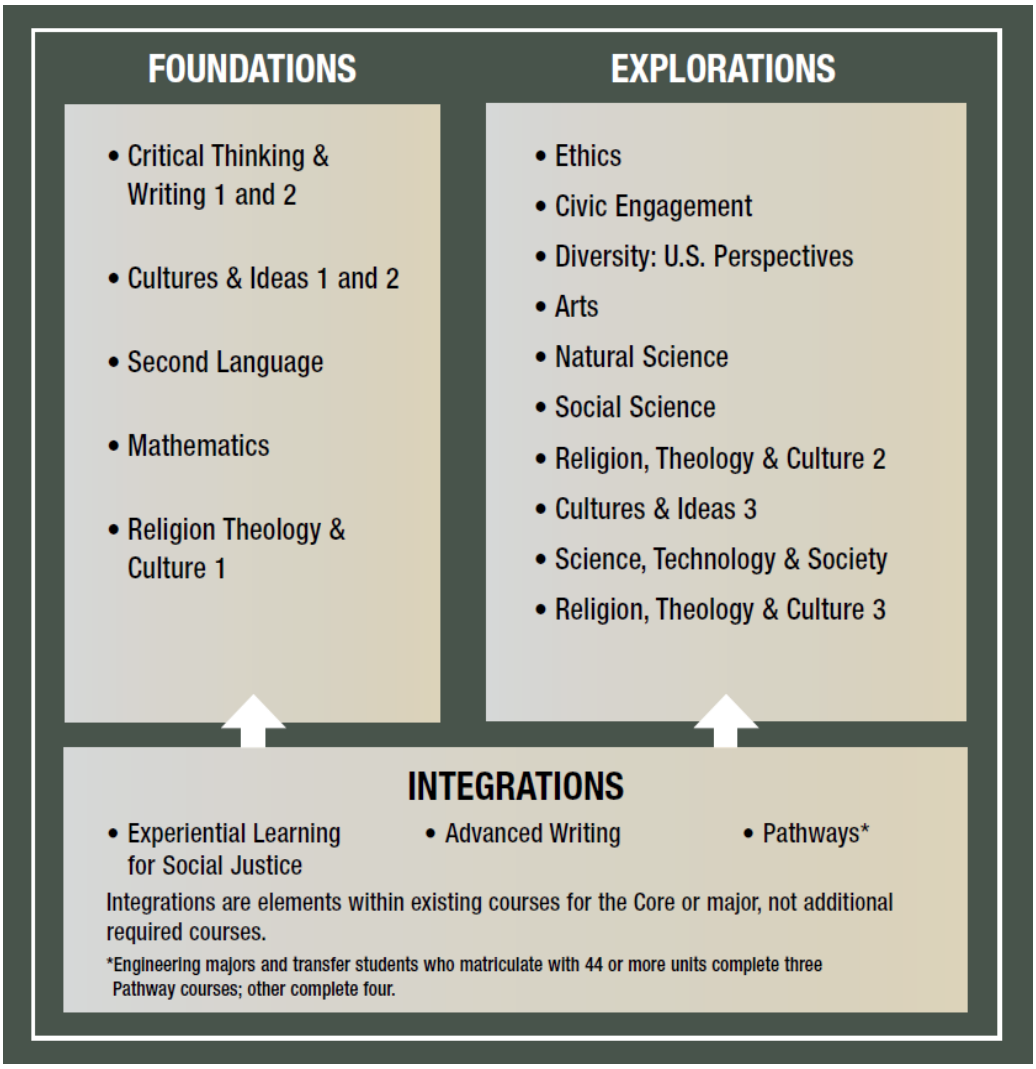
- GPA 3.5

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 <u>First-Year students may not</u> 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: *Engineering Physics*	193	96.5	64.33
Leavey School of Business	175	87.5	58.33
School of Engineering:			
Bioengineering	191	95.5	63.66
Civil Engineering	195	97.5	65
Computer Science & Engineering and General Engineering	189	94.5	63
Electrical Engineering and Electrical & Computer Engineering	190	95	63.33
Mechanical Engineering	192	96	64
Web Design and Engineering	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 Folsom Lake College UC transferrable courses to transfer for credit: some Agriculture, English as a Second Language, Recreation Management, Rise and most Kinesiology courses. To view all Folsom Lake College'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.

Folsom Lake College Course
ENGWR 300: College Composition

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

Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement

Folsom Lake College Course
ENGWR 301: College Composition and Literature
ENGWR 302: Advanced Composition and Critical Thinking

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.

Folsom Lake College Course
ADMJ 300: Introduction to Administration of Justice
ARTH 303: Art Survey: Ancient to 14th Century
ARTH 304: Ancient Art
ARTH 306: Medieval Art
ARTH 307: Italian Renaissance Art
ARTH 309: Art Survey: Renaissance to 19th Century
ARTH 311: Art Survey: Modern Art
ARTH 318: History of American Art
ARTH 324: Art of the Americas
ARTH 325: Native American Art History
ARTH 330: Survey of African-American Art
ENGLT 320: American Literature I
ENGLT 321: American Literature II
ENGLT 330: African American Literature
GEOG 322: Geography of California
HIST 301: History of Western Civilization (to 1660)
HIST 302: History of Western Civilization
HIST 310: History of the United States
HIST 311: History of the United States
HIST 314: Recent United States History
HIST 319: American Environmental History
HIST 344: Survey of California History: A Multicultural Perspective
HIST 368: History of France
HUM 300: Classical Humanities

HUM 310: Modern Humanities
HUM 332: American Humanities
MUFHL 310: Survey of Music History and Literature (Greek Antiquity to 1750)
MUFHL 311: Survey of Music History and Literature (1750 to Present)
POLS 301: Introduction to Government: United States
SJS 300: Introduction to Social Justice Studies
TA 302: History and Theory of the Theatre I
TA 303: History and Theory of the Theatre II
TAFILM 303: History of Film: 1880's through 1950's
TAFILM 304: History of Film: 1950's to Present

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.

Folsom Lake College Course
ANTH 310: Cultural Anthropology
ANTH 320: Introduction to Archaeology and World Prehistory
ARTH 328: Survey of African Art
ARTH 332: Asian Art
ARTH 333: Introduction to Islamic Art
DANCE 380: World Dance History
ENGLT 340: World Literature I
ENGLT 341: World Literature II
ENGLT 345: Mythologies of the World
GEOG 310: Human Geography: Exploring Earth's Cultural Landscapes
HIST 307: History of World Civilizations to 1500
HIST 308: History of World Civilizations, 1500 to Present
HUM 320: Asian Humanities
HUM 325: Arts and Humanities of the Islamic World
MUFHL 330: World Music
PHIL 352: Introduction to World Religions
POLS 302: Introduction to Government: Foreign
POLS 310: Introduction to International Business

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 400 and MATH 401

To fulfill the admission mathematics requirement, complete both MATH 400 and 401 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).***

Folsom Lake College Course	SCU course equivalency
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 410: Introduction to Linear Algebra	MATH 53
MATH 420: 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.

Folsom Lake College Course
No approved Folsom Lake 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.*

Folsom Lake College Course

PHIL 310: Introduction to 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.

Folsom Lake College Course
ADMJ 302: Community Relations: Multicultural Issues
ARTH 312: Women in Art
ARTH 325: Native American Art History
ARTH 330: Survey of African-American Art
BUS 330: Managing Diversity in the Workplace
COMM 325: Intercultural Communication
ENGLT 330: African American Literature
ENGLT 360: Women in Literature
HIST 310: History of the United States
HIST 311: History of the United States
HIST 312: History of the United States (to 1865)
HIST 313: History of the United States (1865-1945)
HIST 314: Recent United States History
HIST 331: Women in American History
HIST 344: Survey of California History: A Multicultural Perspective
HUM 370: Women and the Creative Imagination
PSYC 360: Psychology of Women
PSYC 368: Cross Cultural Psychology
SOC 301: Social Problems
SOC 321: Race, Ethnicity and Inequality in the United States
SOC 341: Sex and Gender in the U.S.
SWHS 331: Cross Cultural Psychology
TA 304: Women in Theatre

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 400; PHYS 411 & 421

(Note: Web Design & Engineering major completes one course to satisfy Natural Science core requirement. It is recommended to complete CHEM400.)

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 Folsom Lake 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.

Folsom Lake College Course	SCU course equivalency
ANTH 300/301: Biological Anthropology w/Lab	ANTH 1
ASTR 300/400: Introduction to Astronomy w/Lab	TRCR 18
BIOL 307: Biology of Organisms w/Lab	TRCR 18
BIOL 310: General Biology w/Lab	TRCR 18
BIOL 323: Plants and People w/Lab	TRCR 18
BIOL 400: Principles of Biology w/Lab	TRCR 18
BIOL 410: Principles of Botany w/Lab	TRCR 18
BIOL 420: Principles of Zoology w/Lab	TRCR 18
BIOL 430: Anatomy and Physiology w/Lab	TRCR 18
BIOL 431: Anatomy and Physiology w/Lab	TRCR 18
BIOL 440: General Microbiology w/Lab	TRCR 18
BIOL 442: General Microbiology and Public Health w/Lab	TRCR 18
CHEM 305: Introduction to Chemistry w/Lab	TRCR 18
CHEM 306: Introduction to Organic and Biological Chemistry w/Lab	TRCR 18
CHEM 400: General Chemistry I w/Lab	CHEM 11
CHEM 401: General Chemistry II w/Lab	CHEM 12&50
CHEM 410: Quantitative Analysis w/Lab	TRCR 18
CHEM 420: Organic Chemistry w/Lab	CHEM 31
CHEM 421: Organic Chemistry w/Lab	CHEM 33 (If CHEM 12A & CHEM 12B completed, equates to SCU's CHEM 31, 32 & 33 sequence)

GEOG 300/301L: Physical Geography: Exploring Earth's Environmental Systems w/Lab	TRCR 18
GEOL 300/301: Physical Geology w/Lab	TRCR 18
GEOL 302: Physical Geology w/Lab	TRCR 18
GEOL 305/306: Earth Science w/ Lab	TRCR 18
GEOL 310/311: Historical Geology w/ Lab	TRCR 18
PS 302: Introduction to Physical Science w/Lab	TRCR 18
PHYS 350: General Physics w/Lab	TRCR 18
PHYS 360: General Physics w/Lab	TRCR 18
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 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.

Folsom Lake College Course
ECON 302: Principles of Macroeconomics
ECON 304: Principles of Microeconomics
PSYC 300: General Principles
PSYC 312: Biological Psychology
SOC 300: Introductory 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.

Folsom Lake College Course
ANTH 310: Cultural Anthropology

ANTH 320: Introduction to Archaeology and World Prehistory
ARTH 328: Survey of African Art
ARTH 332: Asian Art
ARTH 333: Introduction to Islamic Art
DANCE 380: World Dance History
ENGLT 340: World Literature I
ENGLT 341: World Literature II
ENGLT 345: Mythologies of the World
GEOG 310: Human Geography: Exploring Earth's Cultural Landscapes
HIST 307: History of World Civilizations to 1500
HIST 308: History of World Civilizations, 1500 to Present
HUM 320: Asian Humanities
HUM 325: Arts and Humanities of the Islamic World
MUFHL 330: World Music
PHIL 352: Introduction to World Religions
POLS 302: Introduction to Government: Foreign
POLS 310: Introduction to International Business

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	FLC COURSE	BIOE	CENG	COEN	ECEN	ELEN	ENGR	MECH	WDE
MATH 11	MATH 400	X	X	X	X	X	X	X	X
MATH 12	MATH 401	X	X	X	X	X	X	X	X
MATH 13	MATH 402	X	X	X	X	X	X	X	X
MATH 14	MATH 402	X	X	X	X	X	X	X	X
MATH 22 or AMTH 106	MATH 420	X	X	X	X	X	X	X	
MATH 51 or COEN 19	-			X	X				
MATH 53	MATH 410			X	X				
PHYS 31	PHYS 411	X	X	X	X	X	X	X	
PHYS 32	PHYS 431	X	X	X	X	X	X	X	
PHYS 33	PHYS 421	X	X	X	X	X	X	X	
PHYS 34	PHYS 431					X			
CHEM 11	CHEM 400	X	X	X	X	X	X	X	
ELEN/COEN 21/21L	-			X	X	X	X		
ELEN 50	ENGR 400	X		X	X	X	X	X	
CENG 41	ENGR 420		X				X	X	
COEN 10/10L	CISP 360*			X	X	X	X		X
COEN 11/11L	CISP 400 AND CISP 401 **			X	X	X			X
COEN 12/12L	CISP 430			X	X	X			X

*If CISP 360 has no lab then must take COEN 10L

**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

Folsom Lake College Course	SCU course equivalency
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
CHEM 401: General Chemistry II w/Lab	CHEM 12&50
CHEM 420: Organic Chemistry w/Lab	CHEM 31
CHEM 421: Organic Chemistry w/Lab	CHEM 33 (If CHEM 12A & CHEM 12B completed, equates to SCU's CHEM 31, 32 & 33 sequence)
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106

CIVIL ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	SCU course equivalency
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
GEOL 300/301 Physical Geology w/Lab OR GEOL 302: Physical Geology w/Lab	CENG 20/20L
Engineering:	
ENGR 312: Engineering Graphics	CENG 7/7L
ENGR 420: Statics	CENG 41
Mathematics:	
MATH 400: Calculus I	MATH 11

MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106

COMPUTER SCIENCE & ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)
CISP 360: Introduction to Structured Programming	COEN 10/10L (If CISP 360 has no lab then must take COEN 10L)
CISP 400: Object Oriented Programming with C++ AND CISP 401: Object Oriented Programming with Java	COEN 11/11L (*Student must learn C programming on own)
CISP 430: Data Structures	COEN 12/12L
No approved course equivalency at time of publication	COEN 19 OR MATH 51
CISP 310: Assembly Language Programming for Microcomputers	COEN 20 (Must take COEN 20L)
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106
MATH 410: Introduction to Linear Algebra	MATH 53

ELECTRICAL & COMPUTER ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)

CISP 360: Introduction to Structured Programming	COEN 10/10L (If CISP 360 has no lab then must take COEN 10L)
CISP 400: Object Oriented Programming with C++ AND CISP 401: Object Oriented Programming with Java	COEN 11/11L (*Student must learn C programming on own)
CISP 430: Data Structures	COEN 12/12L
No approved course equivalency at time of publication	COEN 19 OR MATH 51
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106
MATH 410: Introduction to Linear Algebra	MATH 53

ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)
ENGR 420: Statics	CENG 41
CISP 360: Introduction to Structured Programming	COEN 10/10L (If CISP 360 has no lab then must take COEN 10L)
CISP 400: Object Oriented Programming with C++ AND CISP 401: Object Oriented Programming with Java	COEN 11/11L (*Student must learn C programming on own)
CISP 430: Data Structures	COEN 12/12L
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106

GENERAL ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11

PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)
ENGR 420: Statics	CENG 41
CISP 360: Introduction to Structured Programming	COEN 10/10L (If CISP 360 has no lab then must take COEN 10L)
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106

MECHANICAL ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab	CHEM 11
PHYS 411: Mechanics of Solids and Fluids w/Lab	PHYS 31
PHYS 421: Electricity and Magnetism w/Lab	PHYS 33
PHYS 431: Heat, Waves, Light and Modern Physics w/Lab	PHYS 32 (If PHYS 411, 421 & 431 completed, equates to SCU's PHYS 31, 32, 33 & 34)
Engineering:	
ENGR 400: Introduction to Electrical Circuits and Devices	ELEN 50 (must take ELEN 50L)
ENGR 420: Statics	CENG 41
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: Calculus III	MATH 13 & 14
MATH 420: Differential Equations	MATH 22 OR AMTH 106

WEB DESIGN AND ENGINEERING MAJOR REQUIREMENTS

Folsom Lake College Course	**SCU course equivalency**
Natural Science:	
CHEM 400: General Chemistry I w/Lab *(Recommended)*	CHEM 11
Engineering:	
CISP 360: Introduction to Structured Programming	COEN 10/10L (If CISP 360 has no lab then must take COEN 10L)

CISP 400: Object Oriented Programming with C++ AND CISP 401: Object Oriented Programming with Java	COEN 11/11L (*Student must learn C programming on own)
CISP 430: Data Structures	COEN 12/12L
Mathematics:	
MATH 400: Calculus I	MATH 11
MATH 401: Calculus II	MATH 12
MATH 402: 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.