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

Monterey Peninsula 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 20A and MATH 20B
- One natural science course with a lab: CHEM 1A
- Two Calculus-based Physics courses: PHYS 3A and PHYS 3B
    - Web Design Engineering majors are not required to complete CHEM 1A, PHYS 3A & 3B. Complete one course in the Natural Science list.

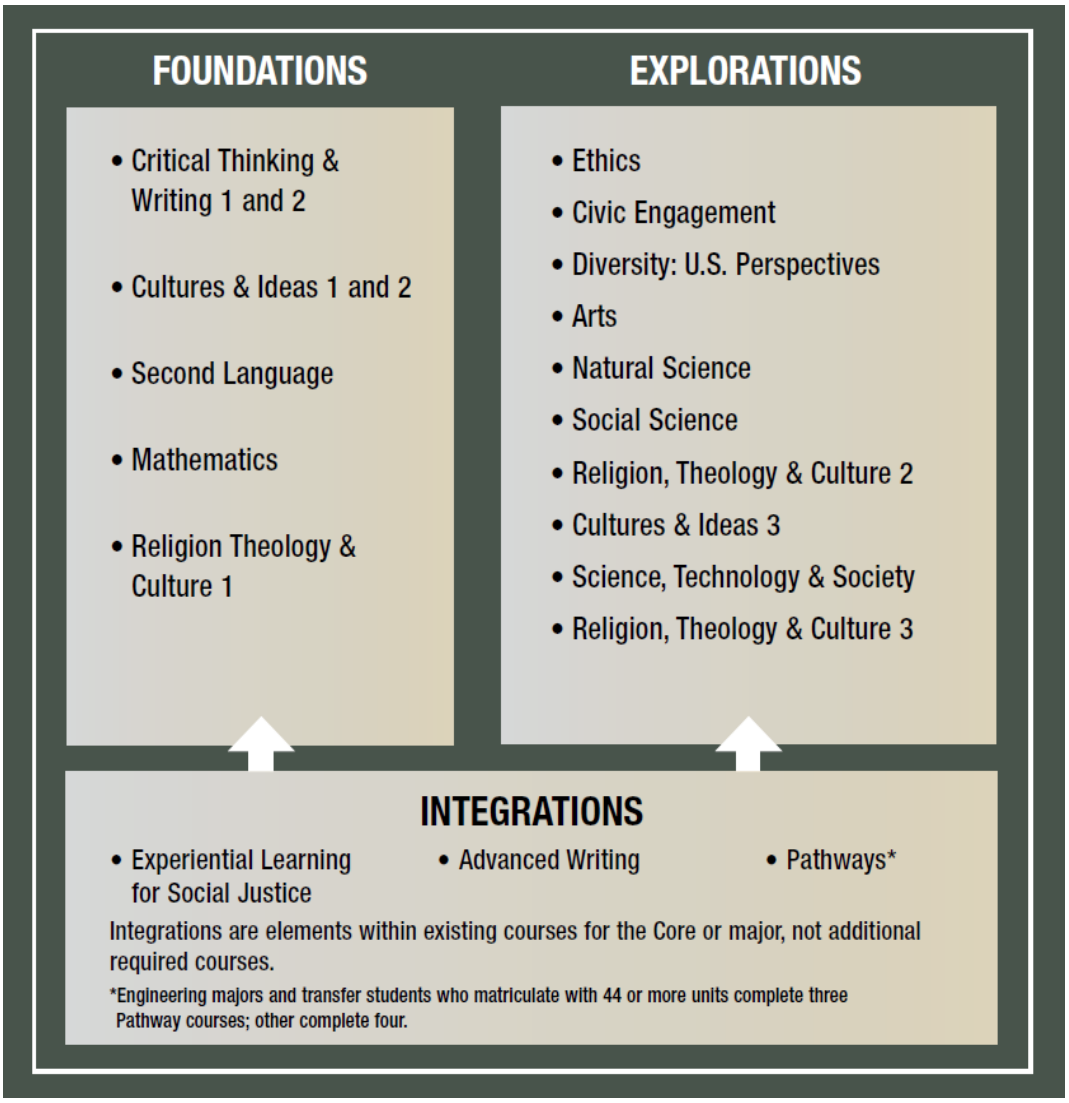
- GPA 3.5

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 Monterey Peninsula College UC transferable courses to transfer for credit: Adaptive Physical Education, Fashion, some Health, Library Services, Physical Education, and Physical Fitness courses. To view all Monterey Peninsula 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.

Monterey Peninsula College Course
ENGL 1A: College Composition
ENGL 1AE: College Composition: Enhanced

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

Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement

Monterey Peninsula College Course
ENGL 1B: Introduction to Literature
ENGL 2: Argumentative Writing and Critical Thinking
PHIL 10: Introduction to 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.

Monterey Peninsula College Course
ADMJ 2: Introduction to Administration of Justice
ADMJ 3: Community and The Justice System
ADMJ 4: Concepts of Criminal Law
ANTH 20: Native Peoples of North America
ARTH 3: Western Art I
ARTH 4: Western Art II
ARTH 12: Greek and Roman Art and Architecture
ARTH 13: Early Christian and Medieval Art
ARTH 14: Renaissance Art and Architecture
ECON 1: The American Economic System
ENGL 40A: Survey of American Literature I
ENGL 40B: Survey of American Literature II
ETNC 4: Mexican-American Art in Am
ETNC 5: African-American Arts and
ETNC 16: African-Americans in American Government
ETNC 18: Latinos in American Government
ETNC 20: Native Peoples of North America
ETNC 34: Asian- American Women
GWOS 12: Women in the United States
GENT 1: Prehistory and Earliest Civilizations (to 1200 BCE)
GENT 2: Foundations of the Classical World (1200-500 BCE)
GENT 3: The Golden Age of Greece (500-300 BCE)
GENT 7: Early Renaissance: 1350 - 1520 A.D.
GENT 8: Late Renaissance and Reformation: 1520 - 1600 A.D.
GENT 10: Age of Reason (1690 - 1775 A.D.)
GENT 11: Reaction and Revolution (1775 - 1815 A.D.)
GENT 12: Age of Progress (1815 - 1870 A.D.)

GENT 13: End of Innocence (1870 - 1918 A.D.)
GENT 21: Medieval and Renaissance Europe (400-1520 A.D.)
GENT 22: Age of Revolution (1690-1870 A.D.)
HIST 4: Western Civilization I
HIST 5: Western Civilization II
HIST 7: The Ancient World- World Civ. To 1500
HIST 10: Modern Latin America
HIST 15: History of California
HIST 17: United States History to 1877
HIST 18: United States History from 1865
HIST 20: History of Mexico
HUMA 30: Humanities in the Multicultural America
POLS 1: Introduction to American Government and Politics
POLS 10: Gender in American Government
POLS 16: African-Americans in American Government
POLS 18: Latinos in American Government
WRLD 4A: The Roman Republic and Rise of Empire (500 BCE - 14 CE)
WRLD 4B: The Roman Empire (14 - 600 CE)

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.

Monterey Peninsula College Course
ANTH 4: Introduction to Cultural Anthropology
ANTH 6: Intro to Archaeology and Prehistory
ANTH 21: Ancient Civilizations of Mesoamerica
ANTH 30: Gender in Global Perspective
ARTH 7: Arts of Africa, Oceania, and the Americas
ARTH 8: Survey of Asian Art
ARTH 10: History of Architecture
ENGL 44: Survey of World Literature I
ENGL 45: Survey of World Literature II
ETNC 10: Intercultural Relations
ETNC 21: Ancient Civilizations of Mesoamerica
ETNC 30: Women in Cross Cultural Perspective
ETNC 40: The African Experience
GENT 5: Medieval World: Part I: 400 - 1100 A.D.
GENT 6: Medieval World: Part II: 1100 - 1350 A.D.
GENT 9: Foundations of Modern World: 1600-1690
GENT 14: Between World Wars (1918 - 1945 A.D.)
GENT 15: World War II to Present (1945 - Present)
GENT 23: The Modern World (1870-Present)
GEOG 4: Intro to Human Geography
GEOG 5: World Regional Geography

GLST 1: Introduction to Global Studies
GLST 2: Global Issues
GWOS 30: Gender in Global Perspective
HIST 6: History of World Religions
HIST 7: World History 1500
HIST 8: World History Since 1500
HIST 40: The African Experience
HIST 47: History of the Ancient Mediterranean and Near East
HIST 48: History of the Middle East
MUSI 5: Introduction to World Music
PHIL 8: Intro to World Religions
PHIL 13: Intro to Eastern Philosophy
POLS 2: Introduction to Comparative Government and Politics
POLS 4: Introduction to International Relations
POLS 5: Politics of Developing Countries
SOCI 16: Global and Urban Studies
WOMN 30: Women in Cross Cultural Perspective
WRLD 20: The Classical World (1200 BCE - 14 CE)

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 20A and MATH 20B

To fulfill the admission mathematics requirement, complete both MATH 20A and 20B 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).***

Monterey Peninsula College Course	**SCU course equivalencies**
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14

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.

Monterey Peninsula College Course
No approved Monterey Peninsula 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.*

Monterey Peninsula College Course
PHIL 4: Moral Issues

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.

Monterey Peninsula College Course
ANTH 20: Native Peoples of North America
ANTH 30: Gender in Global Perspective
BUSI 38: Multiculturalism in Corporate America
ECED 56: Teaching in a Diverse Society
ENGL 11: Literature By and About Women
ETNC 4: Mexican-American Art in American Culture
ETNC 5: African-American Arts and Music in American Culture
ETNC 6: Culture in American Film
ETNC 10: Introduction to Social Justice

ETNC 13: Introduction to Race and Ethnicity
ETNC 14: Sociology of Latinos and Latinas
ETNC 16: African-Americans in American Government
ETNC 18: Latinos in American Government
ETNC 20: Native Peoples of North America
ETNC 22: Asian Americans and Pacific Islanders in American Society
ETNC 23: Chicano History 1848 to Present
ETNC 24: African Americans in United States History to 1865
ETNC 25: African Americans in United States History Since 1865
ETNC 30: Gender in Global Perspective
ETNC 40: The African Experience
ETNC 45: Introduction to Language and Society
GWOS 1: Introduction to Gender and Women's Studies
GWOS 3: Gender and Violence
GWOS 4: Gender, Sexuality, and Popular Culture
GWOS 5: Women of Color in the U.S.
GWOS 10: Gender in American Politics
GWOS 11: Literature By and About Women
GWOS 12: Women in United States History
GWOS 15: Introduction to LGBTQ Global Literatures
GWOS 30: Gender in Global Perspective
GWOS 40: Introduction to Feminist Theory
HIST 12: Women in United States History
HIST 23: Chicano History 1848 to Present
HIST 24: African Americans in United States History to 1865
HIST 25: African Americans in United States History Since 1865
HIST 40: The African Experience
HUMA 4: Images of Women in the Arts
HUMA 30: Humanities in the Multicultural America
HUMA 40: Introduction to Feminist Theory
LING 45: Introduction to Language and Society
PHIL 40: Introduction to Feminist Theory
POLS 10: Gender in American Politics
POLS 16: African-Americans in American Government
POLS 18: : Latinos in American Government
SIGN 10: Structure and Culture of American Sign Language
SIGN 20: Introduction to Deaf Culture
SOCI 2: Contemporary Social Problems
SOCI 13: Introduction to Race and Ethnicity
SOCI 14: Sociology of Latinos and Latinas
SOCI 22: Asian Americans and Pacific Islanders in American Society
SPCH 4: Intercultural Communication

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 3A & 3B

(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 Monterey Peninsula 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.

Monterey Peninsula College Course	SCU course equivalencies
ANAT 1/2: Human Anatomy w/Lab	TRCR 18
ANAT 5: Human Biology w/Lab	TRCR 18
ANTH 2/2L: Introduction to Biological Anthropology w/Lab	ANTH 1
ASTR 10/10L: Introduction to Astronomy w/Lab	TRCR 18
BIOL 10: Principles of Biology w/Lab	TRCR 18
BIOL 13: Marine Biology w/Lab	TRCR 18
BIOL 21: Concepts in Biology I: Cells, Genetics, and Organisms w/Lab	TRCR 18
BIOL 22: Concepts in Biology II: Diversity, Ecology, and Evolution w/Lab	TRCR 18
BIOL 25/26: Applied Microbiology Lecture w/Lab	
BIOL 31/32: Environmental Science w/Lab	TRCR 18
CHEM 1A: General Chemistry I w/Lab	CHEM 11
CHEM 1B: General Chemistry II w/Lab	CHEM 12&50
CHEM 2: Fundamental Chemistry w/Lab	TRCR 18
CHEM 12A: Organic Chemistry I w/Lab	CHEM 31
CHEM 12B: Organic Chemistry II w/Lab	CHEM 33 (If CHEM 12A & 12B is completed, equates to SCU's CHEM 31, 32, & 33)
GEOL 2/2L: Physical Geology w/Lab	CENG 20/20L
GEOL 3/3L: Historical Geology w/Lab	TRCR 18
GEOL 12/12L: Earth Ocean Climate: Introduction to Earth Science w/Lab	TRCR 18
OCEN 2/2L: Intro Oceanography w/Lab	TRCR 18
PHYS 2A: General Physics I w/Lab	PHYS 11

PHYS 2B: General Physics II w/Lab	PHY 13 (If PHYS 2A & 2B completed, equates to SCU's PHYS 11, 12 & 13)
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
PHYS 10: Introduction to Physics w/Lab	TRCR 18
PHSO 1/2: Human Physiology w/Lab	TRCR 18

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.

Monterey Peninsula College Course
ANTH 4: Introduction to Cultural Anthropology
ANTH 6: Intro to Archaeology and Prehistory
ECON 2: Principles of Economics: Macro
ECON 4: Principles of Economics: Micro
ETNC 10: Intercultural Relations in American Society
POLS 2: Intro to Comparative Government
POLS 7: Intro to Political Sci Research
PSYC 1: General Psychology
PSYC 3: sIntroduction to Social Psychology
PSYC 38: Biological Psychology
SSCI 10: Critical Thinking about Social and Cultural Issues
SOCI 1: Introduction to Sociology
SOCI 2: Contemporary Social Problems
SOCI 3: Introduction to Social Psychology
SOCI 40: Marriage and Family Life

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.

Monterey Peninsula College Course
ANTH 4: Introduction to Cultural Anthropology
ANTH 6: Intro to Archaeology and Prehistory
ANTH 21: Ancient Civilizations of Mesoamerica
ANTH 30: Gender in Global Perspective
ARTH 7: Arts of Africa, Oceania, and the Americas
ARTH 8: Survey of Asian Art
ARTH 10: History of Architecture
ENGL 44: Survey of World Literature I
ENGL 45: Survey of World Literature II
ETNC 10: Intercultural Relations
ETNC 21: Ancient Civilizations of Mesoamerica
ETNC 30: Women in Cross Cultural Perspective
ETNC 40: The African Experience
GENT 5: Medieval World: Part I: 400 - 1100 A.D.
GENT 6: Medieval World: Part II: 1100 - 1350 A.D.
GENT 9: Foundations of Modern World: 1600-1690
GENT 14: Between World Wars (1918 - 1945 A.D.)
GENT 15: World War II to Present (1945 - Present)
GENT 23: The Modern World (1870-Present)
GEOG 4: Intro to Human Geography
GEOG 5: World Regional Geography
GLST 1: Introduction to Global Studies
GLST 2: Global Issues
GWOS 30: Gender in Global Perspective
HIST 6: History of World Religions
HIST 7: World History 1500
HIST 8: World History Since 1500
HIST 40: The African Experience
HIST 47: History of the Ancient Mediterranean and Near East
HIST 48: History of the Middle East
MUSI 5: Introduction to World Music
PHIL 8: Intro to World Religions
PHIL 13: Intro to Eastern Philosophy
POLS 2: Introduction to Comparative Government and Politics
POLS 4: Introduction to International Relations
POLS 5: Politics of Developing Countries
SOCI 16: Global and Urban Studies
WOMN 30: Women in Cross Cultural Perspective
WRLD 20: The Classical World (1200 BCE - 14 CE)

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	MPC COURSE	BIOE	CENG	COEN	ECEN	ELEN	ENGR	MECH	WDE
MATH 11	MATH 20A	X	X	X	X	X	X	X	X
MATH 12	MATH 20B	X	X	X	X	X	X	X	X
MATH 13	MATH 20C	X	X	X	X	X	X	X	X
MATH 14	MATH 20C	X	X	X	X	X	X	X	X
MATH 22 or AMTH 106	MATH 32	X	X	X	X	X	X	X	
MATH 51 or COEN 19	MATH 40			X	X				
MATH 53	MATH 31			X	X				
PHYS 31	PHYS 3A	X	X	X	X	X	X	X	
PHYS 32	PHYS 3C	X	X	X	X	X	X	X	
PHYS 33	PHYS 3B	X	X	X	X	X	X	X	
PHYS 34	-					X			
CHEM 11	CHEM 1A	X	X	X	X	X	X	X	
ELEN/COEN 21/21L	-			X	X	X	X		
ELEN 50/50L	ENGR 12/12L	X		X	X	X	X	X	
CENG 41	ENGR 8		X				X	X	
COEN 10/10L	CSIS 10A			X	X	X	X		X
COEN 11/11L	-			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

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
CHEM 1B: General Chemistry II w/Lab	CHEM 12&50
CHEM 12A: Organic Chemistry I w/Lab	CHEM 31
CHEM 12B: Organic Chemistry II w/Lab	CHEM 32 (If CHEM 12A & 12B completed, equates to SCU CHEM 31, 32, 33 sequence)
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106

CIVIL ENGINEERING MAJOR REQUIREMENTS

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
GEOL 2/2L: Physical Geology w/Lab	CENG 20/20L
Engineering:	
ENGR 2: Engineering Design Graphics	CENG 7
ENGR 8: Engineering Statics	CENG 41
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106

COMPUTER SCIENCE & ENGINEERING MAJOR REQUIREMENTS

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
CSIS 10A: Programming Methods I: JAVA	COEN 10/10L
No approved course equivalency at time of publication	COEN 11/11L
No approved course equivalency at time of publication	COEN 12/12L
MATH 40: Discrete Mathematics	COEN 19 or MATH 51
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106
MATH 31: Linear Algebra	MATH 53

ELECTRICAL & COMPUTER ENGINEERING MAJOR REQUIREMENTS

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
CSIS 10A: Programming Methods I: JAVA	COEN 10/10L
No approved course equivalency at time of publication	COEN 11/11L
No approved course equivalency at time of publication	COEN 12/12L
MATH 40: Discrete Mathematics	COEN 19 or MATH 51
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14

MATH 32: Differential Equations	MATH 22 or AMTH 106
MATH 31: Linear Algebra	MATH 53

ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
No approved course equivalency at time of publication	PHYS 34
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
ENGR 8: Engineering Statics	CENG 41
CSIS 10A: Programming Methods I: JAVA	COEN 10/10L
No approved course equivalency at time of publication	COEN 11/11L
No approved course equivalency at time of publication	COEN 12/12L
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106

GENERAL ENGINEERING MAJOR REQUIREMENTS

American River College Course	SCU course equivalency
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
ENGR 2: Engineering Design Graphics	MECH 10
ENGR 17: Programming and Problem-Solving in MATLAB	MECH 45
ENGR 8: Engineering Statics	CENG 41

CSIS 10A: Programming Methods I: JAVA	COEN 10/10L
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106

MECHANICAL ENGINEERING MAJOR REQUIREMENTS

American River College Course	**SCU course equivalency**
Natural Science:	
CHEM 1A: General Chemistry I w/Lab	CHEM 11
PHYS 3A: Science and Engineering Physics I w/Lab	PHYS 31
PHYS 3B: Science and Engineering Physics II w/Lab	PHYS 33
PHYS 3C: Science and Engineering Physics III w/Lab	PHYS 32
Engineering:	
ENGR 12/12L: Engineering Circuits w/Lab	ELEN 50/50L
ENGR 2: Engineering Design Graphics	MECH 10
ENGR 17: Programming and Problem-Solving in MATLAB	MECH 45
ENGR 8: Engineering Statics	CENG 41
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	MATH 13&14
MATH 32: Differential Equations	MATH 22 or AMTH 106

WEB DESIGN AND ENGINEERING MAJOR REQUIREMENTS

American River College Course	**SCU course equivalency**
Natural Science:	
CHEM 1A: General Chemistry I w/Lab *(Recommended)*	CHEM 11
Engineering:	
CSIS 10A: Programming Methods I: JAVA	COEN 10/10L
No approved course equivalency at time of publication	COEN 11/11L
No approved course equivalency at time of publication	COEN 12/12L
Mathematics:	
MATH 20A: Calculus with Analytic Geometry I	MATH 11
MATH 20B: Calculus with Analytic Geometry II	MATH 12
MATH 20C: Calculus of Several Variables	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.