

# *Santa Clara University*

*Undergraduate*

## **School of Engineering**

### **Bakersfield 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 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 B6A and MATH B6B
- One natural science: CHEM B1A
- Two calculus-based physics courses: PHYS B4A and PHYS B4B
  - Web Design Engineering majors are not required to complete CHEM B1A, PHYS B4A & B4B. 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/qualifying-for-admission/>

The following information is provided to help transfer students understand and complete additional Santa Clara University Core Curriculum (General Education) and some major 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 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 International Baccalaureate test credits.

| Academic Division   | Minimum number of units required for graduation | Maximum transferrable <b>quarter</b> units | Maximum transferrable <b>Semester</b> Unit equivalency |
|---|---|--|--|
| <b>College of Arts and Sciences</b>                               | 175   | 87.5                                       | 58.33  |
| <b>Leavey School of Business</b>                                  | 175   | 87.5                                       | 58.33  |
| <b>School of Engineering:</b>                                     |   |  |  |
| <i>Bioengineering</i>   | 191   | 95.5                                       | 63.66  |
| <i>Civil Engineering</i>  | 196   | 98   | 65.33  |
| <i>Computer Science &amp; Engineering and General Engineering</i> | 189   | 94.5                                       | 63   |
| <i>Electrical Engineering</i>                                     | 190   | 95   | 63.33  |
| <i>Mechanical Engineering</i>                                     | 192   | 96   | 64   |
| <i>Web Design and Engineering</i>                                 | 175   | 87.5                                       | 58.33  |

*The time needed to complete a degree will depend on the student's total number of transfer units and the distribution toward specific SCU Core, school/college and major curriculum requirements.*

## TRANSFER CREDIT ACCEPTED:

SCU does not give transfer credit for P/NP, CR, S or courses with a grade of C- or lower. Grades are not transferable to SCU, only units. However, awarding of degrees with Latin honors is based on all graded undergraduate courses attempted at SCU and courses taken elsewhere that are used towards the fulfillment of a student's degree. Honors will not be awarded above those merited by the student's record at SCU.

The following courses are not transferrable: most first-year seminars, internships, professional development courses, independent study courses, workshops, most physical education courses, most criminal/administration of justice 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 Bakersfield College UC transferable courses to transfer for credit: Physical Education courses. To view all Bakersfield College's UC transferable courses, visit [www.assist.org](http://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 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 Advanced Writing 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 2<sup>nd</sup> college level English, or who scored a 4 or 5 on the AP English exam, may substitute the course placement or the test credit for CTW 1. Students are responsible for submitting the appropriate AP CollegeBoard Report at the time of acceptance to receive such credit.

|   |
|---|
| <b>Bakersfield College Course</b> <click back > |
| ENGL B1A: Expository Composition                |

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

*Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement.*

|  |
|--|
| <b>Bakersfield College Course</b> <click back >      |
| ENGL B1B: Intro to Types of Literature               |
| ENGL B2: Advanced Composition and Critical Thinking  |
| ENGL B3: Argumentative Writing and Critical Thinking |
| PHIL B9: Critical Thinking and Advanced Composition  |

## 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.

| <b>Bakersfield College Course</b> <click back >          |
|--|
| ANTH B5: North American Indians                          |
| ART B35: Survey of Western Art I                         |
| ART B36: Survey of Western Art II                        |
| ENGL B30A: Survey of American Literature                 |
| ENGL B30B: Survey of American Literature                 |
| HIST B4A: European Civilization                          |
| HIST B4B: European Civilization                          |
| HIST B17A: History of the United States                  |
| HIST B17B: History of the United States since 1870       |
| HIST B18: History of California                          |
| HIST B20A: African American History of the United States |
| HIST B20B: African American History of the United States |
| HIST B36: History of Native American Indians             |
| MUSC B27: History of Rock and Roll                       |
| PHIL B18: History of Ancient Philosophy                  |
| PHIL B33: World Religions-West                           |
| POLS B1: American Government- National, State and Local  |
| SOCI B36: Sociology of the Chicano                       |

## CULTURES & IDEAS 2: 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.

| <b>Bakersfield College Course</b> <click back >                 |
|---|
| ANTH B2: Cultural Anthropology                                  |
| ART B37: Survey of Art- Latin America                           |
| ENGL B20A: Survey of World Literature                           |
| GEOG B2: Human Geography  |
| GEOG B5: World Regional Geography                               |
| HIST B1: World History from the Origins of Civilization to 1600 |
| HIST B2: History of the World since 1650                        |
| HIST B15: Civilizations of the Middle East                      |
| MUSC B24: A Survey of World Music                               |
| PHIL B32: World Religions-East                                  |
| PHIL B33: World Religions-West                                  |
| PHIL B37: Intro to World Religions                              |
| POLS B2: Comparative Government                                 |
| POLS B3: International Politics                                 |
| SOCI B28: Intro to Gender                                       |

## 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 B6A and MATH B6B**

*To fulfill the admissions mathematics requirement, complete MATH B6A and MATH B6B 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).*

| <b>Bakersfield College Course</b> <click back > | <b>SCU course equivalency</b>   |
|---|---|
| MATH B6A: Analytic Geometry and Calculus I      | <b>MATH 11</b>  |
| MATH B6B: Analytic Geometry and Calculus II     | <b>MATH 13 (If MATH 150 &amp; 160 completed, equates to SCU's MATH 11, 12 &amp; 13)</b> |
| MATH B6C: Calculus III                          | MATH 14   |
| MATH B6D: Ordinary Differential Equations       | MATH 22   |

|                                     |         |
|-------------------------------------|---------|
| MATH B6E: Elementary Linear Algebra | MATH 53 |
|-------------------------------------|---------|

*Note: A score of 4 or 5 on the AP CALCULUS BC exam will equate to SCU's MATH 11 & 12. SCU does not accept remedial mathematics courses. Although a pre-Calculus course is transferrable, it will not fulfill general University 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.

|  |
|--|
| <b>Bakersfield College Course</b> <click back >                                    |
| <i>No approved Bakersfield College course equivalencies at time of publication</i> |

*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 Levey School of Business fulfill the Ethics requirement at SCU. Refer to Levey School of Business Transfer Guide for specific Core and School requirements.

|   |
|---|
| <b>Bakersfield College Course</b> <click back > |
| PHIL B10: Intro to Ethics                       |
| PHIL B12: Ethics of Living and Dying            |

**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.

| Bakersfield College Course <click back >                 |
|--|
| ASL B6: American Deaf Culture                            |
| HIST B20A: African American History of the United States |
| HIST B20B: African American History of the United States |
| HIST B25: Intro to Women in American History             |
| HIST B30A: Early Chicano History                         |
| HIST B30B: History of Chicanos in the Southwest          |
| HIST B36: History of Native American Indians             |
| SOCI B2; Problems of Modern Society                      |
| SOCI B45: Minority Relations                             |

## 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 B1B; PHYS B4A & B4B**

*(Note: Web Design & Engineering major completes one course to satisfy Natural Science core requirement. It is recommended to complete CHEM B1B)*

*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).*

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

| Bakersfield College Course <click back > | SCU course equivalency |
|--|------------------------|
| BIOL B3A: General Biology I              | TRCR 18                |
| BIOL B3B: General Biology II             | TRCR 18                |
| BIOL B7: Environmental Biology           | TRCR 18                |
| BIOL B11: Concepts of Biology            | TRCR 18                |
| BIOL B16: General Microbiology           | TRCR 18                |



|  |  |
|--|--|
| BIOL B20: Human Biology  | TRCR 18  |
| BIOL B32: Human Anatomy and Physiology I   | TRCR 18  |
| BIOL B33: Human Anatomy and Physiology II  | TRCR 18  |
| CHEM B1A: General Chemistry  | TRCR 18  |
| CHEM B1B: General Chemistry and Chemical Analysis                                  | CHEM 11  |
| CHEM B2A: Introductory General Chemistry   | CHEM 13 (If CHEM B1B & CHEM B2A completed, equates to SCU's CHEM 11, 12 & 13 sequence) |
| CHEM B11: Intro to General, Organic and Biochemistry                               | TRCR 18  |
| CHEM B18: Elementary Organic Chemistry   | TRCR 18  |
| CHEM B30A: Organic Chemistry for Science Majors I                                  | CHEM 31  |
| CHEM 30B: Organic Chemistry for Science Majors II                                  | CHEM 33  |
| CRPS B10: Plant Biology  | TRCR 18  |
| ERSC B10/B10L: Intro to Earth Science w/ Lab                                       | TRCR 18  |
| GEOG B1/B1L: Physical Elements of Geography w/ Lab                                 | TRCR 18  |
| GEOL B10/B10L: Intro to Geology w/ Lab   | TRCR 18  |
| GEOL B11/B11L: Historical Geology w/ Lab   | TRCR 18  |
| PHSC B12: Physical Science   | TRCR 18  |
| PHYS B2A: General Physics- Mechanics and Heat                                      | PHYS 11  |
| PHYS B2B: General Physics- Sound, Light, Electricity, Magnetism and Modern Physics | PHYS 13 ( If PHYS B2A & B2B completed, equates to SCU's PHYS 11, 12 & 13 sequence)     |
| PHYS B4A: Mechanics and Wave Motion  | PHYS 31  |
| PHYS B4B: Heat, Electricity and Magnetism  | PHYS 33  |
| PHYS B4C: Optics and Modern Physics  | PHYS 34  |
| SOIL B1: Intro to Soil Science   | TRCR 18  |

**SOCIAL SCIENCE:** Complete one course from list below.

*Note: Students accepted in the Leavey School of Business take ECON B1 & B2 to satisfy the Social Science requirement. Refer to Leavey School of Business Transfer Guide for specific Core and school requirements.*

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.

|  |
|--|
| <b>Bakersfield College Course</b> <click back >                  |
| ANTH B3: Intro to Archaeology                                    |
| ECON B1: Principles of Economics- Micro                          |
| ECON B2: Principles of Economics- Macro                          |
| PSYC B1A: General Psychology                                     |
| PSYC B1B: Biological Psychology                                  |
| PSYC B6: Research Methods for the Behavioral and Social Sciences |

|                             |
|-----------------------------|
| SOCI B1: Intro to 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.

Note: Students accepted in the Leavey School of Business fulfill the Cultures and Ideas 3 requirement at SCU. Refer to Leavey School of Business Transfer Guide for specific core and school requirements.

| <b>Bakersfield College Course</b> <click back >                 |
|---|
| ANTH B2: Cultural Anthropology                                  |
| ART B37: Survey of Art- Latin America                           |
| ENGL B20A: Survey of World Literature                           |
| GEOG B2: Human Geography  |
| GEOG B5: World Regional Geography                               |
| HIST B1: World History from the Origins of Civilization to 1600 |
| HIST B2: History of the World since 1650                        |
| HIST B15: Civilizations of the Middle East                      |
| MUSC B24: A Survey of World Music                               |
| PHIL B32: World Religions-East                                  |
| PHIL B33: World Religions-West                                  |
| PHIL B37: Intro to World Religions                              |
| POLS B2: Comparative Government                                 |
| POLS B3: International Politics                                 |
| SOCI B28: Intro to Gender                                       |

**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 30 semester units (or 44 quarter units) of transfer credit must take 4 courses to fulfill the pathways requirement. However, students transferring in with 30 or more semester units (or 44 or more quarter units) 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.

### BIOENGINEERING MAJOR REQUIREMENTS

| Bakersfield College Course <click back >                       | SCU course equivalency         |
|--|--------------------------------|
| <b>Natural Science:</b>  |                                |
| <i>No approved course equivalencies at time of publication</i> | BIOE 21 and BIOE 22            |
| <i>No approved course equivalencies at time of publication</i> | BIOL 21, 22 OR BIOL 21, 24, 25 |
| CHEM B1A and CHEM B1B  | CHEM 11, 12, 13                |
| CHEM B30A and CHEM B30B  | CHEM 31, 32 33                 |
| PHYS B4A and PHYS B4B  | PHYS 31, 32, 33                |
|  |                                |
| <b>Engineering:</b>  |                                |
| <i>No approved course equivalencies at time of publication</i> | BIOE 10                        |
| <i>No approved course equivalencies at time of publication</i> | ENGR 1                         |
| <i>No approved course equivalencies at time of publication</i> | MECH 10                        |
| <i>No approved course equivalencies at time of publication</i> | ELEN 21                        |
| ENGR B17/B17L  | ELEN 50/50L                    |
| ENGR B19C  | COEN 45 (or 44)                |
|  |                                |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Mathematics:</b>                  |                     |
| MATH B6A, B6B, B6C                   | MATH 11, 12, 13, 14 |
| MATH B6D: Ord Differential Equations | MATH 22             |

*Note: Medical-device track: complete BIOL 21, 22; Biomolecular or Pre-med track: complete BIOL 21, 24, 25*

## CIVIL ENGINEERING MAJOR REQUIREMENTS

| Bakersfield College Course <click back >                       | SCU course equivalency |
|--|------------------------|
| <b>Natural Science:</b>  |                        |
| CHEM B1A   | CHEM 11/11L            |
| PHYS B4A and PHYS B4B  | PHYS 31, 32, 33        |
| GEOL B10/B10L  | CENG 20/20L            |
|  |                        |
| <b>Engineering:</b>  |                        |
| <i>No approved course equivalencies at time of publication</i> | ENGR 1                 |
| <b>ENGR B17/B17L</b>   | ELEN 50/50L            |
| <i>No approved course equivalencies at time of publication</i> | MECH 10                |
| <i>No approved course equivalencies at time of publication</i> | CENG 7/7L              |
| <i>No approved course equivalencies at time of publication</i> | CENG 10/10L            |
| <b>ENGR B36</b>  | CENG 41                |
| <i>No approved course equivalencies at time of publication</i> | CENG 44A/44AL          |
|  |                        |
| <b>Mathematics:</b>  |                        |
| MATH B6A, B6B, B6C   | MATH 11, 12, 13, 14    |
| MATH B6D   | MATH 22                |

## COMPUTER SCIENCE & ENGINEERING

| Bakersfield College Course <click back >                       | SCU course equivalency   |
|--|--|
| <b>Natural Science:</b>  |  |
| CHEM B1A   | CHEM 11  |
| PHYS B4A and PHYS B4B  | PHYS 31, 32, 33  |
|  |  |
| <b>Engineering:</b>  |  |
| <i>No approved course equivalencies at time of publication</i> | ENGR 1   |
| <b>ENGR B17/B17L</b>   | ELEN 50/50L  |
| <i>No approved course equivalency at time of publication</i>   | COEN 10 (AP Comp Sci A exam with score of 3, 4 or 5 receives SCU's COEN 10 equivalency)  |
| <i>No approved course equivalencies at time of publication</i> | COEN 11, 12, 19, 20, 21, 70 (AP Comp Sci A score of 4 or 5 equates to SCU's COEN 10, 11) |
|  |  |
| <b>Mathematics:</b>  |  |
| MATH B6A, B6B, B6C   | MATH 11, 12, 13, 14  |
| MATH B6D   | MATH 22  |
| MATH B6E   | MATH 53  |

**ELECTRICAL ENGINEERING**

| <b>Bakersfield College Course</b> <click back >   | <b>SCU course equivalency</b>           |
|---|---|
| <b>Natural Science:</b>   |   |
| CHEM B1A  | CHEM 11                                 |
| CHEM B1B OR MATH 6BE  | CHEM 12 OR MATH 53                      |
| PHYS B4A and PHYS B4B   | PHYS 31, 32, 33                         |
| PHYS B4C  | PHYS 34                                 |
|   |   |
| <b>Engineering:</b>   |   |
| <i>No approved course equivalencies at time of publication</i>  | ENGR 1                                  |
| <b>ENGR B36</b>   | CENG 41                                 |
| <b>ENGR B19C OR</b><br><i>(No approved course equivalencies for COEN 11 and COEN 12 at time of publication)</i> | COEN 44 <b>OR</b> (COEN 11 AND COEN 12) |
| <i>No approved course equivalencies at time of publication</i>  | ELEN 20, 21, 33                         |
| <b>ENGR B17/B17L</b>  | ELEN 50/50L                             |
|   |   |
| <b>Mathematics:</b>   |   |
| MATH B6A, B6B, B6C  | MATH 11, 12, 13, 14                     |
| MATH B6D  | MATH 22                                 |

**GENERAL ENGINEERING**

| <b>Bakersfield College Course</b> <click back >                | <b>SCU course equivalency</b> |
|--|-------------------------------|
| <b>Natural Science:</b>  |                               |
| CHEM B1A   | CHEM 11                       |
| PHYS B4A and PHYS B4B  | PHYS 31, 32, 33               |
|  |                               |
| <b>Engineering:</b>  |                               |
| <i>No approved course equivalencies at time of publication</i> | ENGR 1                        |
| <i>No approved course equivalencies at time of publication</i> | BIOE 10                       |
| <b>ENGR B36</b>  | CENG 41                       |
| <i>No approved course equivalencies at time of publication</i> | CENG 43/43L                   |
| <i>No approved course equivalencies at time of publication</i> | COEN 10/10L, COEN 21, 21L     |
| <b>ENGR B17/B17L</b>   | ELEN 50/50L                   |
| <i>No approved course equivalencies at time of publication</i> | MECH 10/10L, MECH 11/11L      |
|  |                               |
|  |                               |
| <b>Mathematics:</b>  |                               |
| MATH B6A, B6B, B6C   | MATH 11, 12, 13, 14           |
| MATH B6D   | MATH 22                       |

**MECHANICAL ENGINEERING**

| <b>Bakersfield College Course</b> <click back > | <b>SCU course equivalency</b> |
|---|-------------------------------|
| <b>Natural Science:</b>                         |                               |
| CHEM B1A  | CHEM 11                       |
| PHYS B4A and PHYS B4B                           | PHYS 31, 32, 33               |

|  |                         |
|--|-------------------------|
|  |                         |
| <b>Engineering:</b>  |                         |
| ENGR B19C  | COEN 44/44L or 45/45L   |
| ENGR B36   | CENG 41                 |
| <i>No approved course equivalencies at time of publication</i> | CENG 43/43L             |
| ENGR B17/B17L  | ELEN 50/50L             |
| <i>No approved course equivalencies at time of publication</i> | ENGR 1                  |
| <i>No approved course equivalencies at time of publication</i> | MECH 10/10L, 11, 15/15L |
|  |                         |
| <b>Mathematics:</b>  |                         |
| MATH B6A, B6B, B6C   | MATH 11, 12, 13, 14     |
| MATH B6D   | MATAH 22                |

## WEB DESIGN AND ENGINEERING

| Bakersfield College Course <click back >  | SCU course equivalency   |
|---|--|
| <b>Natural Science:</b> <i>fulfilled with one course from Natural Science list.</i> |  |
| CHEM B1A  | CHEM 11 ( <i>recommended</i> )   |
|   |  |
| <b>Engineering:</b>   |  |
| <i>No approved course equivalencies at time of publication</i>                      | ENGR 1   |
| <i>No approved course equivalencies at time of publication</i>                      | COEN 10, 11, 12, 60 OR CSCI 10, 60, 61<br>( <i>AP COMP SCI A exam with score of 3 equates to SCU's COEN 10/10L, score of 4 or 5 equates to SCU's COEN 10/10L and 11/11L OR CSCI 10</i> ) |
|   |  |
| <b>Mathematics:</b>   |  |
|   | MATH 11, 12, 13, 14  |
| <i>No approved course equivalencies at time of publication</i>                      | AMTH 108 (OR MATH 122)   |

### Additional notes:

- Consult the current Undergraduate Bulletin for Advanced Placement and International Baccalaureate test credit equivalencies at:  
<https://www.scu.edu/academics/course-catalogs/undergraduate-bulletin/>
- 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 at: <https://www.scu.edu/academics/course-catalogs/undergraduate-bulletin/>

- 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 (unless transfer credit for a course was preapproved to fulfill the Core RTC 1 requirement); Civic Engagement; Religion, Theology & Culture 2 and 3 (taken in sequence order after RTC 1 is completed); Science, Technology & Society; Experiential Learning for Social Justice; Advanced Writing; and four Pathway courses.

For questions regarding transfer credit or AP/IB test credit, contact Sheli Whiting, Transfer Record Analyst at: [swhiting@scu.edu](mailto:swhiting@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.

Santa Clara University

School of Engineering

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

- E LSJ 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\*
Intermediate Calculus III/IV
Differential Equations

NATURAL SCIENCE\*

- General Chemistry\*
General Chemistry (2nd sem)
Engineering Phys\*
Engineering Phys\*
Engineering Phys\*

ADDITIONAL ENGINEERING MAJOR Requirements

- Intro to Engineering (OPTIONAL)
Intro to Circuit Analysis
Engineering Graphics
Computer Programming

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 Admissions webpage at: https://www.scu.edu/admission/undergraduate/transfer-students/transferring-credits/. The time needed to complete a degree offered in the School of Engineering will depend on the total number of units accepted and their distribution toward satisfying SCU Core, School of Engineering and major requirements.