

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

Mission 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: MAT 003A/003AH and MAT 003B
- One natural science course with a lab: CHM 001A/001AH
- Two Calculus-based Physics courses: PHY 004A and PHY 004B
 - Web Design Engineering majors are not required to complete CHM 001A/001AH, PHY 004A & 004B. Complete one course in the Natural Science list.

- GPA 3.5

For additional SCU Transfer Admissions information:

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

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

STRUCTURE OF SANTA CLARA UNIVERSITY GENERAL CORE

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



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

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

MAXIMUM NUMBER OF TRANSFER UNITS ACCEPTED:

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

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

TRANSFER CREDIT ACCEPTED:

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

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

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

FOUNDATIONS Core requirements

Critical Thinking & Writing 1 and 2 Core Requirement:

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

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

Admission recommendation: Complete Critical Thinking and Writing 1 Core requirement

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

| Mission College Course |
|--|
| ENG 001A: English Composition |
| ENG 001AX: Intensive English Composition |

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

Admission recommendation: Complete Critical Thinking and Writing 2 Core requirement

| Mission College Course |
|-------------------------------------|
| ENG 001B: English Composition |
| ENG 001C: Clear Thinking in Writing |

CULTURES & IDEAS 1 and 2 Core Requirements:

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

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

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

| Mission College Course |
|---|
| ART 1A: Survey of Western Art I |
| ART 1B: Survey of Western Art II |
| ART 1D: Art of the 20 th Century |
| BUS 28A: Business Law I |
| BUS 51: Introduction to American Business |
| HIS 4A/4AH: History of Western Civilization |
| HIS 4B/4BH: History of Western Civilization |
| HIS 17A/17AH: History of the United States to 1877 |
| HIS 17B/17BH: History of the United States Since 1877 |
| HIS 20: History and Geography of California |
| HUM 1A: Human Values in and from the Arts |
| HUM 1B: Human Values in and from the Arts |
| POL 1/1H: American Government |
| SOC 1: Intro to Sociology |

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

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

| Mission College Course |
|--|
| ANT 3: Intro to Cultural Anthropology |
| ART 7: Survey of Asian Art |
| ENG 6B: World Literature |
| GEO 2: Intro to Cultural Geography |
| GEO 6: World Regional Geography |
| HIS 15/15H: World History to 1500 |
| HIS 16/16H: World History since 1500 |
| HIS 31: History of East Asia |
| HUM 7: International Films (same as POLIT 7) |
| HUM 20: Asian Roots and Culture |
| HUM 22: Intro to Islam |
| MUS 17: Musics of the World |
| POL 2: Comparative Government |
| POL 4: International Relations |
| POL 7: International Film (same as HUMAN 7) |

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).

| Mission College Course | SCU Course Equivalency |
|--|-------------------------------|
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 |

| | |
|-------------------------------|---------|
| MAT 004C: Linear Algebra | MATH 53 |
| MAT 019: Discrete Mathematics | MATH 51 |

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.

| |
|--|
| Mission College Course |
| ANT 55: Magic, Witchcraft and Religion |

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.

| |
|-------------------------------|
| Mission College Course |
| PHI 3: 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.

| Mission College Course |
|---|
| COM 25: Mass Communication and Society |
| ENG 13: Chicana/o-Latina/o Literature |
| GEO 2: Introduction to Cultural Geography |
| HIS 33/33H: Women's Issues Past and Present |
| HUM 16A: Hispanics – Roots and Culture |
| HUM 18/18H: African-American Culture and Humanities |
| HUM 30: Cultural Studies |
| POL 6: Politics of Race, Class and Gender |
| SJS 2: Introduction to Gender Studies |
| SJS 3: Introduction to LGBTQ Studies |
| SOC 2/2H: Social Problems |
| SOC 21: Minorities in the United States |

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 CHM 001A/001AH; PHY 004A & PHY 004B

(Note: Web Design & Engineering major completes one course to satisfy Natural Science core requirement. It is recommended to complete CHM 001A/001AH.)

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 Mission 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.

| Mission College Course | SCU Course Equivalency |
|---|--|
| AST 001 AND 003/003H: Astronomy w/Lab | TRCR 18 |
| BIO 001A/001AH: General Biology: Cells w/Lab | TRCR 18 |
| BIO 001B: General Biology: Organisms w/Lab | TRCR 18 |
| BIO 004: Microbiology w/Lab | TRCR 18 |
| BIO 010 AND 010L: Introduction to Biology w/Lab | TRCR 18 |
| BIO 011: Human Biology w/Lab | TRCR 18 |
| BIO 016: Marine Biology w/Lab | TRCR 18 |
| BIO 032: California Plants and Animals w/Lab | TRCR 18 |
| BIO 047: Human Anatomy w/Lab | TRCR 18 |
| BIO 048/048H: Human Physiology w/Lab | TRCR 18 |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| CHM 001B/001BH: General Chemistry II w/Lab | CHEM 12&50 |
| CHM 002 AND 002L: Introductory Chemistry w/Lab | TRCR 18 |
| CHM 012A/012AH: Organic Chemistry I w/Lab | CHEM 31 |
| CHM 012B/012BH: Organic Chemistry II w/Lab | CHEM 33 (If CHEM 12A & 12B completed, equates to CHEM 31, 32 & 33) |
| CHM 030A: Fundamentals of Chemistry w/Lab | CHEM 11 |
| PHYS 002A: General Physics w/Lab | PHYS 11 |
| PHYS 002B: General Physics w/Lab | PHYS 13 (If PHYS 2A & 2B completed, equates to PHYS 11, 12 & 13) |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| PHY 010: Introduction to Physics 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.

| Mission College Course |
|---|
| ANT 3: Intro to Cultural Anthropology |
| ECN 1A: Principles of Macroeconomics |
| ECN 1B: Principles of Microeconomics |
| PHI 5: Intro to Social and Political Philosophy (same as POLIT 3) |
| POLI2: Comparative Government |
| POL 3: Intro to Social and Political Philosophy (same as PHIL 5) |
| POL 4: International Relations |
| PSY 1/1H: General Psychology |
| PSY 10: Social Psychology |
| SOC 1/1H: Introduction to Sociology |
| SOC 2: Social Problems |
| SOC 21: Minorities in the United States |
| SOC 47: Sociology of Criminology |

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.

| Mission College Course |
|--|
| ANT 3: Intro to Cultural Anthropology |
| ART 7: Survey of Asian Art |
| ENG 6B: World Literature |
| GEO 2: Intro to Cultural Geography |
| GEO 6: World Regional Geography |
| HIS 15/15H: World History to 1500 |
| HIS 16/16H: World History since 1500 |
| HIS 31: History of East Asia |
| HUM 7: International Films (same as POLIT 7) |
| HUM 20: Asian Roots and Culture |
| HUM 22: Intro to Islam |
| MUS 17: Musics of the World |
| POL 2: Comparative Government |
| POL 4: International Relations |
| POL 7: International Film (same as HUMAN 7) |

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 | MC COURSE | BIOE | CENG | COEN | ECEN | ELEN | ENGR | MECH | WDE |
|------------------------|-------------------------|------|------|------|------|------|------|------|-----|
| MATH 11 | MAT 003A/003AH | X | X | X | X | X | X | X | X |
| MATH 12 | MAT 003B | X | X | X | X | X | X | X | X |
| MATH 13 | MAT 004A | X | X | X | X | X | X | X | X |
| MATH 14 | MAT 004A | X | X | X | X | X | X | X | X |
| MATH 22 or AMTH 106 | MAT 004B | X | X | X | X | X | X | X | |
| MATH 51 or COEN 19 | MAT 019 | | | X | X | | | | |
| MATH 53 | MAT 004C | | | X | X | | | | |
| PHYS 31 | PHY 004A | X | X | X | X | X | X | X | |
| PHYS 32 | PHY 004C | X | X | X | X | X | X | X | |
| PHYS 33 | PHY 004B | X | X | X | X | X | X | X | |
| PHYS 34 | - | | | | | X | | | |
| CHEM 11 | CHM 001A/001AH | X | X | X | X | X | X | X | |
| ELEN/COEN 21/21L | - | | | X | X | X | X | | |
| ELEN 50/50L | EGR 024 & 024L | X | | X | X | X | X | X | |
| CENG 41 | EGR 023 | | X | | | | X | X | |
| COEN 10/10L | CIS 037A* OR CIS 043 | | | X | X | X | X | | X |
| COEN 11/11L | - | | | X | X | X | | | X |
| COEN 12/12L | - | | | X | X | X | | | X |
| | | | | | | | | | |

* Student can get tested by their advisor to see if can waive COEN 11 & 11L

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

| Mission College Course | SCU course equivalency |
|---|--|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| CHM 001B/001BH: General Chemistry II w/Lab | CHEM 12&50 |
| CHM 012A/012AH: Organic Chemistry I w/Lab | CHEM 31 |
| CHM 012B/012BH: Organic Chemistry II w/Lab | CHEM 33 (If CHEM 12A & 12B completed, equates to CHEM 31, 32 & 33) |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| EGR 025: Engineering Graphics and Design | MECH 10 |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |

CIVIL ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|---|------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 025: Engineering Graphics and Design | CENG 7/7L |
| EGR 023: Mechanics - Statics | CENG 41 |
| Mathematics: | |

| | |
|--|---------------------|
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |

COMPUTER SCIENCE & ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|---|------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| CIS 037A: Introduction to C Programming OR CIS 043: Software Development with Java Programming | COEN 10/10L |
| <i>No approved course equivalency at time of publication</i> | COEN 11/11L |
| <i>No approved course equivalency at time of publication</i> | COEN 12/12L |
| CIS 039: Introduction to Computer Systems | COEN 20/20L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |
| MAT 004C: Linear Algebra | MATH 53 |
| MAT 019: Discrete Mathematics | MATH 51 or COEN 19 |

ELECTRICAL & COMPUTER ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|---|------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |

| | |
|---|---------------------|
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| CIS 037A: Introduction to C Programming OR CIS 043: Software Development with Java Programming | COEN 10/10L |
| <i>No approved course equivalency at time of publication</i> | COEN 11/11L |
| <i>No approved course equivalency at time of publication</i> | COEN 12/12L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |
| MAT 004C: Linear Algebra | MATH 53 |
| MAT 019: Discrete Mathematics | MATH 51 or COEN 19 |

ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|---|------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| EGR 023: Mechanics - Statics | CENG 41 |
| CIS 037A: Introduction to C Programming OR CIS 043: Software Development with Java Programming | COEN 10/10L |
| <i>No approved course equivalency at time of publication</i> | COEN 11/11L |
| <i>No approved course equivalency at time of publication</i> | COEN 12/12L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |

GENERAL ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|---|-------------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| EGR 023: Mechanics - Statics | CENG 41 |
| EGR 025: Engineering Graphics and Design | MECH 10/10L |
| EGR 026: Engineering Materials | MECH 15/15L |
| CIS 037A: Introduction to C Programming OR CIS 043: Software Development with Java Programming | COEN 10/10L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |
| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |

MECHANICAL ENGINEERING

| Mission College Course | SCU course equivalency |
|---|-------------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab | CHEM 11 |
| PHY 004A: Engineering Physics - Mechanics w/Lab | PHYS 31 |
| PHY 004B: Engineering Physics - Electricity and Magnetism w/Lab | PHYS 33 |
| PHY 004C: Engineering Physics - Light and Heat w/Lab | PHYS 32 |
| Engineering: | |
| EGR 024&024L: Introduction to Circuit Analysis w/Lab | ELEN 50/50L |
| EGR 023: Mechanics - Statics | CENG 41 |
| EGR 025: Engineering Graphics and Design | MECH 10/10L |
| EGR 026: Engineering Materials | MECH 15/15L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | MATH 13&14 |

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| MAT 004B: Differential Equations | MATH 22 or AMTH 106 |
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WEB DESIGN AND ENGINEERING MAJOR REQUIREMENTS

| Mission College Course | SCU course equivalency |
|--|------------------------|
| Natural Science: | |
| CHM 001A/001AH: General Chemistry I w/Lab <i>(Recommended)</i> | CHEM 11 |
| Engineering: | |
| CIS 037A: Introduction to C Programming OR CIS 043: Software Development with Java Programming | COEN 10/10L |
| <i>No approved course equivalency at time of publication</i> | COEN 11/11L |
| <i>No approved course equivalency at time of publication</i> | COEN 12/12L |
| Mathematics: | |
| MAT 003A/003AH: Analytic Geometry and Calculus I | MATH 11 |
| MAT 003B: Analytic Geometry and Calculus II | MATH 12 |
| MAT 004A: Intermediate Calculus | 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.