

# A unique partnership leading to your degree in Civil Engineering

Two of Southern California's leading educational institutions have created a  
2 + 2 articulation agreement to expedite your studies to become a Civil Engineer

## Mt. SAN ANTONIO COLLEGE

Physics and Engineering Department (909) 594-5611 ext. 4424

### GENERAL EDUCATION AT Mt. SAC

#### Required General Education Lower Division Courses

- |   |  |
|---|--|
| <input type="checkbox"/> ENGL 1A or 1AH | Freshman Composition <i>or</i> Freshman Composition - Honors |
| <input type="checkbox"/> HIST 7 or 8*   | History of United States                                     |
| <input type="checkbox"/> SPCH 1A or 1AH | Public Speaking <i>or</i> Public Speaking - Honors           |

It is recommended that you take **three** of the six courses listed below. The **three** remaining lower division GE courses along with the three courses required to satisfy the GE Upper Division Theme will be useful in balancing the technical course load at Cal State L.A.

- |  |  |
|--|--|
| <input type="checkbox"/> ENGL 1C or 1CH      | Critical Thinking and Writing <i>or</i> Critical Thinking and Writing - Honors |
| <input type="checkbox"/> POLI 1 or 1H        | Political Science <i>or</i> Political Science - Honors                         |
| <input type="checkbox"/> BLOCK C (3 courses) | Arts and Humanities  |
| <input type="checkbox"/> BLOCK E (1 course)  | Lifelong Understanding and Self-Development                                    |

\* HIST 7 is equivalent to Cal State L.A.'s HIST 202A and HIST 8 is equivalent to Cal State L.A.'s HIST 202B. You can also meet the Cal State L.A.'s History Requirement by taking any one course from HIST 1, 1H, 30, 31, 36, 40.

### COURSES IN MAJOR PROGRAM AT Mt. SAC

#### Basic Sciences and Mathematics

- |                                   |   |
|-----------------------------------|---|
| <input type="checkbox"/> CHEM 1A  | General Chemistry                         |
| <input type="checkbox"/> MATH 180 | Calculus and Analytic Geometry            |
| <input type="checkbox"/> MATH 181 | Calculus and Analytic Geometry            |
| <input type="checkbox"/> MATH 280 | Calculus and Analytic Geometry            |
| <input type="checkbox"/> MATH 285 | Linear Algebra and Differential Equations |
| <input type="checkbox"/> PHYS 4A  | Engineering Physics                       |
| <input type="checkbox"/> PHYS 4B  | Engineering Physics                       |

#### Technical Courses

- |                                  |                             |
|----------------------------------|-----------------------------|
| <input type="checkbox"/> ENGR 8  | Properties of Materials     |
| <input type="checkbox"/> ENGR 40 | Statics                     |
| <input type="checkbox"/> ENGR 41 | Dynamics                    |
| <input type="checkbox"/> ENGR 42 | Mechanics of Materials      |
| <input type="checkbox"/> ENGR 44 | Electrical Engineering      |
| <input type="checkbox"/> ENGR 48 | Introduction to Engineering |
| <input type="checkbox"/> SURV 1A | Surveying                   |

## CAL STATE L.A.

Department of Civil Engineering (323) 343-4450

### GENERAL EDUCATION AT CAL STATE L.A.

#### General Education Lower Division

- |                                |  |
|--------------------------------|--|
| <input type="checkbox"/> _____ | Insert GE holdover course (See Mt SAC GE note) |
| <input type="checkbox"/> _____ | Insert GE holdover course (See Mt SAC GE note) |
| <input type="checkbox"/> _____ | Insert GE holdover course (See Mt SAC GE note) |

#### General Education Upper Division Theme

- |   |           |
|---|-----------|
| <input type="checkbox"/> Upper Division GE Theme* | 3 courses |
|---|-----------|

\*A biology course must be included as part of GE Upper Division Theme

Note: You must select two **diversity** courses from among the GE courses you take at Cal State L.A.

### COURSES IN MAJOR PROGRAM AT CAL STATE L.A.

#### Lower Division Engineering Courses

- |   |  |
|---|--|
| <input type="checkbox"/> CE 190 ▶                         | Introduction to CAD                      |
| <input type="checkbox"/> CE 195                           | Civil Engineering Design I               |
| <input type="checkbox"/> CE 290                           | Numerical Methods for Engineers          |
| <input type="checkbox"/> CE/ME 211 (formerly ENGR 211) ▶▶ | Statistics and Probability for Engineers |
| <input type="checkbox"/> CS 290 ▶▶▶                       | Introduction to FORTRAN Programming      |

▶ Credit will be granted for students who take ENGR 24 at Mount San Antonio College.

▶▶ Credit will be granted for students who take MATH 110 at Mount San Antonio College.

▶▶▶ Credit will be granted for students who take CSCI 120 at Mount San Antonio College.

#### Upper Division Engineering Courses

- |                                    |   |
|------------------------------------|---|
| <input type="checkbox"/> ENGR 300  | Economics for Engineers                   |
| <input type="checkbox"/> ENGR 301  | Ethics and Professionalism in Engineering |
| <input type="checkbox"/> ENGL 306  | Technical Report Writing                  |
| <input type="checkbox"/> CE/ME 303 | Fluid Mechanics I                         |
| <input type="checkbox"/> CE/ME 312 | Strength of Materials Laboratory I        |
| <input type="checkbox"/> CE/ME 313 | Fluid Mechanics Laboratory I              |
| <input type="checkbox"/> ME 326A   | Thermodynamics I                          |
| <input type="checkbox"/> CE 360    | Structural Mechanics I                    |
| <input type="checkbox"/> CE 361    | Introduction to Structural Design I       |
| <input type="checkbox"/> CE 364    | Concrete Laboratory                       |
| <input type="checkbox"/> CE 366    | Soil Mechanics I                          |
| <input type="checkbox"/> CE 368    | Soil Mechanics Laboratory                 |
| <input type="checkbox"/> CE 370    | Transportation Engineering                |
| <input type="checkbox"/> CE 384    | Introduction to Environmental Engineering |
| <input type="checkbox"/> CE 487    | Design of Water Resources Systems         |
| <input type="checkbox"/> CE 495    | Civil Engineering Design Project          |

#### Technical Electives

- |   |                                    |
|---|------------------------------------|
| <input type="checkbox"/> CE DESIGN ELECTIVES            | 2 design courses                   |
| <input type="checkbox"/> CE DESIGN OR LECTURE ELECTIVES | 2 design <i>or</i> lecture courses |
| <input type="checkbox"/> CE LABORATORY ELECTIVE         | 1 laboratory course                |

Note: You are required to take the Writing Proficiency Examination (WPE) prior to completing 135 quarter units.