

A unique partnership leading to your degree in Civil Engineering

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

L.A. VALLEY COLLEGE

Department of Electronics/Engineering (818) 781-1200 ext. 2561

GENERAL EDUCATION AT L.A. VALLEY COLLEGE

Required General Education Lower Division Courses

- | | | |
|--------------------------|-------------------------|--|
| <input type="checkbox"/> | ENGLISH 101 | College Reading and Composition I |
| <input type="checkbox"/> | HISTORY 11 or 12 or 13* | Political and Social History of U.S. I or II or
The U.S. in Twentieth Century |
| <input type="checkbox"/> | SPEECH 101 | Oral Communication I |

It is recommended that you take **four** of the six courses listed below. The **two** 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"/> | ENGLISH 103 | Critical Thinking and English Composition |
| <input type="checkbox"/> | POL SCI 1 | The Government of the U.S. |
| <input type="checkbox"/> | BLOCK C (3 courses) | Humanities |
| <input type="checkbox"/> | BLOCK E (1 course) | Integrated Psychological and Physiological Studies |

* HISTORY 11 or 12 is equivalent to Cal State L.A.'s HIST 202A and HISTORY 13 is equivalent to Cal State L.A.'s HIST 202B. See advisor for other available options.

COURSES IN MAJOR PROGRAM AT L.A. VALLEY COLLEGE

Basic Sciences and Mathematics

- | | | |
|--------------------------|------------|--|
| <input type="checkbox"/> | CHEM 101 | General Chemistry I |
| <input type="checkbox"/> | MATH 265 | Calculus with Analytic Geometry I |
| <input type="checkbox"/> | MATH 266 | Calculus and Analytic Geometry II |
| <input type="checkbox"/> | MATH 267 | Calculus and Analytic Geometry III |
| <input type="checkbox"/> | MATH 275 | Ordinary Differential Equations |
| <input type="checkbox"/> | PHYSICS 37 | Physics for Engineers and Scientists I |
| <input type="checkbox"/> | PHYSICS 38 | Physics for Engineers and Scientists II |
| <input type="checkbox"/> | PHYSICS 39 | Physics for Engineers and Scientists III |

Technical Courses

- | | | |
|--------------------------|------------------------|--|
| <input type="checkbox"/> | CIST 813 or MATH 175** | Beginning FORTRAN Programming or Mathematical Elements of Computer Programming |
| <input type="checkbox"/> | ELECTRONICS 4 | Fundamentals of Electronics |
| <input type="checkbox"/> | GEN ENGR 101 | Introduction to Science, Engineering, and Technology |
| <input type="checkbox"/> | GEN ENGR 151 | Materials of Engineering |
| <input type="checkbox"/> | GEN ENGR 243 | Statics and Strength of Materials |

** May substitute a course in any high-level programming language.

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 LA Valley College GE note) |
| <input type="checkbox"/> | _____ | Insert GE holdover course (See LA Valley College 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 202 | Plane Surveying |
| <input type="checkbox"/> | CE/ME 205 | Strength of Materials I |
| <input type="checkbox"/> | CE/ME 210 (formerly ENGR 210) ▶ | Matrix Algebra for Engineers |
| <input type="checkbox"/> | CE/ME 211 (formerly ENGR 211) ▶ | Statistics and Probability for Engineers |
| <input type="checkbox"/> | CE 290 | Numerical Methods for Engineers |

▶ It is recommended that students take CE 190, CE/ME 210, and CE/ME 211 at Cal State L.A. However, credit will be granted for students who take GET 213, MATH 270 and MATH 225, respectively, at LA Valley 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"/> | CE/ME 320 | Dynamics 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 or 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.