

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. TRADE-TECHNICAL COLLEGE

Department of Science and Math (213) 744-9091

GENERAL EDUCATION AT LATTC

Required General Education Lower Division Courses

- | | |
|--------------------------------------|-----------------------------------|
| <input type="checkbox"/> ENGLISH 101 | College Reading and Composition |
| <input type="checkbox"/> ENGLISH 103 | Composition and Critical Thinking |
| <input type="checkbox"/> SPEECH 101 | Oral Communications I |

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"/> U.S. HISTORY* | HISTORY 11, 12, 13, 41, 42, 43, or 44 |
| <input type="checkbox"/> POLSCI 1 | The Government of the U.S. |
| <input type="checkbox"/> BLOCK C (3 courses) | Arts, Literature, Philosophy and Foreign Language |
| <input type="checkbox"/> BLOCK E (1 course) | Lifelong Understanding and Self-Development |

* HISTORY 11 is equivalent to Cal State L.A.'s HIST 202A and HISTORY 12 or 13 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 HISTORY 41, 42, 43, 44.

COURSES IN MAJOR PROGRAM AT LATTC

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 with Analytic Geometry II |
| <input type="checkbox"/> MATH 267 | Calculus with Analytic Geometry III |
| <input type="checkbox"/> MATH 275 | Ordinary Differential Equations |
| <input type="checkbox"/> PHYSICS 1 | Mechanics of Solids |
| <input type="checkbox"/> PHYSICS 2 | Mechanics of Fluids, Heat, and Sound |
| <input type="checkbox"/> PHYSICS 3 | Electricity and Magnetism |

** CHEM 102 is recommended for students who are interested in Environmental Engineering specialization.

Technical Courses

- | | |
|---------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> CIS 739*** | Programming in C |
| <input type="checkbox"/> GEN ENGR 101 | Introduction to Science, Engineering, and Technology |
| <input type="checkbox"/> GEN ENGR 131 | Statics |
| <input type="checkbox"/> GEN ENGR 151 | Materials of Engineering |
| <input type="checkbox"/> GEN ENGR 241 | Strength of Materials |
| <input type="checkbox"/> GEN ENGR 242 | Strength of Materials Laboratory |

*** 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 LATTC GE note) |
| <input type="checkbox"/> _____ | Insert GE holdover course (See LATTC GE note) |
| <input type="checkbox"/> _____ | Insert GE holdover course (See LATTC 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 290 | Numerical Methods for Engineers |
| <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"/> EE 204 (formerly ENGR 204) | Circuit Analysis I |

▶ Credit will be granted for students who take MATH 270 at LA Trade-Technical College.

▶▶ Credit will be granted for students who take MATH 225 at LA Trade-Technical 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 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.