

A unique partnership leading to your degree in Engineering with Special Option in Manufacturing Engineering

Two of Los Angeles' leading educational institutions have created a
2 + 2 articulation agreement to expedite your studies to become a Manufacturing 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"/> | CSIT 813 or MATH 175** | Beginning FORTRAN Programming or
Mathematical Elements of Computer Programming |
| <input type="checkbox"/> | GEN ENGR 101 | Introduction to Science, Engineering, and Technology |
| <input type="checkbox"/> | GEN ENGR 112 | Engineering Descriptive Geometry |
| <input type="checkbox"/> | GEN ENGR 151 | Materials of Engineering |
| <input type="checkbox"/> | GEN ENGR 243 | Statics and Strength of Materials |
| <input type="checkbox"/> | GET 166 | Shop Practice |

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

CAL STATE L. A.

Department of Mechanical Engineering (323) 343-4490

GENERAL EDUCATION AT CAL STATE L.A.

General Education Lower Division

- | | | |
|--------------------------|-------------------|---|
| <input type="checkbox"/> | Lower Division GE | 2 remaining courses (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"/> | EE 204 ▶ | Circuit Analysis I |
| <input type="checkbox"/> | CE/ME 205 | Strength of Materials |
| <input type="checkbox"/> | CE/ME 210 (formerly ENGR 210) ▶ ▶ | Matrix Algebra for Engineers |
| <input type="checkbox"/> | EE 210 or ME 310 ▶ | Electrical Measurement Laboratory or
Mechanical Engineering Measurements Laboratory |
| <input type="checkbox"/> | CE/ME 211 (formerly ENGR 211) ▶ ▶ | Statistics and Probability for Engineers |
| <input type="checkbox"/> | EE 211 ▶ | Electrical Circuits Laboratory |

▶ It is recommended that students take EE 204, EE 210 or ME 310, and EE 211 at Cal State L.A. However, credit will be granted for students who take ELECTRONICS 20 (prerequisite: ELECTRONICS 4A and 4B) at LA Valley College.

▶ ▶ It is recommended that students take CE/ME 210 and CE/ME 211 at Cal State L.A. However, credit will be granted for students who take MATH 270 and MATH 225, respectively, at LA Valley College.

Upper Division Engineering Courses

- | | | |
|--------------------------|----------------------|---|
| <input type="checkbox"/> | ENGL 306 or TECH 400 | Technical Writing or Written Communication Skills for
Industrial Technology |
| <input type="checkbox"/> | ENGR 300 | Economics for Engineers |
| <input type="checkbox"/> | ENGR 301 | Ethics and Professionalism in Engineering |
| <input type="checkbox"/> | CE/ME 312 | Strength of Materials I Laboratory |
| <input type="checkbox"/> | ME 323 | Machine Design I |
| <input type="checkbox"/> | ME 327 | Manufacturing Processes |
| <input type="checkbox"/> | ME 328 | Introduction to Metallurgy |
| <input type="checkbox"/> | ME 329 | Metallography Laboratory I |
| <input type="checkbox"/> | ME 410 or EE 360 | Control of Mechanical Systems or Control Systems Theory I |
| <input type="checkbox"/> | ME 428 or TECH 484 | Automation and Computer Aided Manufacturing or
Automated Manufacturing Systems |
| <input type="checkbox"/> | EE/ME 481 | Introduction to Robotics |
| <input type="checkbox"/> | EE/ME 491 | Robotics Laboratory |

Technical and Management Electives

- | | | |
|--------------------------|------------------------------------|--|
| <input type="checkbox"/> | 300 LEVEL TECHNICAL ELECTIVES | Select 4 courses from CE/ME 303, CE/ME 320, EE 304, EE 336, ME 306, ME 326A |
| <input type="checkbox"/> | MANAGEMENT ELECTIVES | Select 3 courses from MGMT 306, MGMT 460, MGMT 463, MGMT 464, MGMT 467, MGMT 496 |
| <input type="checkbox"/> | UPPER DIVISION TECHNICAL ELECTIVES | Select 4 courses from EE 336, EE 345, EE 372, EE 445, ME 414, ME 422, TECH 325, TECH 327, TECH 411, TECH 425 |

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

Effective April 2000