

# 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

## LOS ANGELES CITY COLLEGE

Department of Engineering and Physics (323) 953-4319

### GENERAL EDUCATION AT LACC

#### Required General Education Lower Division Courses

- |                          |                                   |  |
|--------------------------|-----------------------------------|--|
| <input type="checkbox"/> | ENGLISH 101                       | College Reading and Composition I  |
| <input type="checkbox"/> | SPEECH 101                        | Oral Communication I   |
| <br>                     |                                   |  |
| <input type="checkbox"/> | HISTORY 5 or 6 or 11 or 12 or 13* | History of the Americas I or II or Political and Social History of the United States I or II or the United States in the Twentieth Century |
| <input type="checkbox"/> | POLSCI 1                          | The Government of the United States  |
| <input type="checkbox"/> | AREA C (3 courses)                | Arts, Literature, Philosophy and Foreign Languages   |
| <input type="checkbox"/> | AREA E (1 course)                 | Lifelong Understanding and Self Development  |
| <input type="checkbox"/> | ENGLISH 103                       | Critical Thinking, Reading, and Writing  |

\*Select **one** course from HISTORY 5, HISTORY 6, HISTORY 11, HISTORY 12, HISTORY 13.

### COURSES IN MAJOR PROGRAM AT LACC

#### Basic Sciences and Mathematics

- |                          |                        |  |
|--------------------------|------------------------|--|
| <input type="checkbox"/> | CHEM 101               | General Chemistry I                                      |
| <input type="checkbox"/> | CSIT 113 or MATH 150** | Beginning FORTRAN Programming or Introduction to FORTRAN |
| <input type="checkbox"/> | MATH 261               | Calculus I   |
| <input type="checkbox"/> | MATH 262               | Calculus II  |
| <input type="checkbox"/> | MATH 263               | Calculus III   |
| <input type="checkbox"/> | MATH 275               | Ordinary Differential Equations                          |
| <input type="checkbox"/> | PHYSICS 1              | Mechanics of Solids                                      |
| <input type="checkbox"/> | PHYSICS 2              | Heat, Wave Motion, Fluids and Geometrical Optics         |
| <input type="checkbox"/> | PHYSICS 3              | Electricity and Magnetism                                |

#### Lower Division Engineering Courses

- |                          |              |   |
|--------------------------|--------------|---|
| <input type="checkbox"/> | EE 220       | Electrical Circuits                                 |
| <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"/> | IND ARTS 11  | Basic Metalwork                                     |

\*\* May substitute a course in any high-level programming language (i.e., CSIT 106, CSIT 108, CSIT 139, CSIT 140).

## 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 | 3 remaining courses |
|--------------------------|-------------------|---------------------|

#### General Education Upper Division Theme

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| <input type="checkbox"/> | Upper Division 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/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"/> | ME 103                            | Introduction to Mechanical Design        |

◀ Credit will be granted for students who take MATH 270 at L.A. City College.

◀ ◀ Credit will be granted for students who take MATH 225 at L.A. City College.

#### Upper Division Engineering Courses

- |                          |                      |  |
|--------------------------|----------------------|--|
| <input type="checkbox"/> | CE/ME 312            | Strength of Materials Laboratory I   |
| <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"/> | 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"/> | ME 481               | Introduction to Robotics   |
| <input type="checkbox"/> | 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 4-5 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.