

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

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

GLENDALE COMMUNITY COLLEGE

Engineering Drafting Department (818) 240-1000 ext. 5541

GENERAL EDUCATION AT GCC

Required General Education Lower Division Courses

It is recommended that you take all ten courses below at GCC.

- | | | |
|--------------------------|------------------------|---|
| <input type="checkbox"/> | ENGL 101 | Freshman English |
| <input type="checkbox"/> | SPCH 101 | Public Speaking |
| <input type="checkbox"/> | HIST 110, 117 or 118** | United States History or History of the United States |
| <input type="checkbox"/> | POLS 106+105* | American State and Local Government <u>and</u>
American Political Ideals |
| <input type="checkbox"/> | AREA C (3 courses) | Arts, Literature, Philosophy and Foreign Language |
| <input type="checkbox"/> | AREA E (1 course) | Lifelong Understanding and Self-Development |
| <input type="checkbox"/> | ENGL 104 | Critical Thinking and Argumentation |

† HIST 110 is the recommended history course. However, you can also meet the Cal State L.A.'s U.S. History requirement by taking HIST 117 or 118.

* See advisor for other available options.

COURSES IN MAJOR PROGRAM AT GCC

Basic Sciences and Mathematics

- | | | |
|--------------------------|----------|---------------------------------|
| <input type="checkbox"/> | CHEM 101 | General Chemistry |
| <input type="checkbox"/> | MATH 103 | Calculus and Analytic Geometry |
| <input type="checkbox"/> | MATH 104 | Calculus and Analytic Geometry |
| <input type="checkbox"/> | MATH 105 | Calculus and Analytic Geometry |
| <input type="checkbox"/> | MATH 108 | Ordinary Differential Equations |
| <input type="checkbox"/> | PHY 101 | Engineering Physics |
| <input type="checkbox"/> | PHY 102 | Engineering Physics |
| <input type="checkbox"/> | PHY 103 | Engineering Physics |

Required Technical Courses

- | | | |
|--------------------------|-------------|--|
| <input type="checkbox"/> | CS/IS 150** | FORTRAN Programming |
| <input type="checkbox"/> | ECT 102 | Electronics Circuits II (AC) |
| <input type="checkbox"/> | ENGR 100 | Introduction to Engineering |
| <input type="checkbox"/> | ENGR 103 | Descriptive Geometry |
| <input type="checkbox"/> | MATP 146 | Materials and Processes |
| <input type="checkbox"/> | MET 150*** | Principles of Metallurgy and Heat Treating |

** May substitute a course in any high-level programming language (i.e., CS/IS 130, CS/IS 135, CS/IS 137, CS/IS 139, CS/IS 140, CS/IS 145).

*** Non-transferable course. Credit will be granted for Cal State L.A. course ME 328 upon matriculation as a Cal State L.A. Engineering major.

CAL STATE L. A.

Department of Mechanical Engineering (323) 343-4490

GENERAL EDUCATION AT CAL STATE L.A.

General Education Upper Division Theme

- 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"/> | TECH 160▲ | Introduction to Metalworking |
| <input type="checkbox"/> | CE/ME 201 [formerly ENGR 201] | Statics |
| <input type="checkbox"/> | CE/ME 205 [formerly ENGR 205] | Strength of Materials |
| <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 |

▲ Credit will be granted for students who take MT 101 at Glendale Community College.

▲▲ Credit will be granted for students who take MATH 107 at Glendale Community College.

▲▲▲ Credit will be granted for students who take MATH 136 at Glendale Community 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 329 | Metallography Laboratory |
| <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 or 5 courses (at least 16 units) 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.