



Suggested Course Plan for a UC Riverside Major in

# Electrical Engineering

(Catalog Year 2009)

## Fall Quarter

EE 010 (2)  
*Intro to Electrical Engineering*  
ENGL 001A (4)  
*English Composition*  
MATH 009A (4)  
*First Year Calculus*  
BREADTH (4)  
*Humanities/Social Sciences*

## Winter Quarter

CS 010 (4)  
*C++ Programming*  
ENGL 001B (4)  
*English Composition*  
MATH 009B (4)  
*First Year Calculus*  
PHYS 040A (5)  
*Physics (Mechanics)*

## Spring Quarter

CS 013 (4)  
*Introductory CS for Engineers*  
ENGL 001C or 01SC\* (4)  
*English Composition*  
MATH 009C (4)  
*First Year Calculus*  
PHYS 040B (5)  
*Physics (Heat/Waves/Sound)*

### First Year

CS 061 (4)  
*Machine Organization*  
EE 001A/01LA (4)  
*Engineering Circuit Analysis*  
MATH 046 (4)  
*Differential Equations*  
PHYS 040C (5)  
*Physics (Electricity/Magnetism)*

EE 001B (4)  
*Engineering Circuit Analysis II*  
MATH 010A (4)  
*Multivariable Calculus*  
EE/CS 120A (5)  
*Logic Design*  
BREADTH (4)  
*Humanities/Social Sciences*

CS/EE 120B (5)  
*Embedded Systems*  
MATH 010B (4)  
*Multivariable Calculus*  
BREADTH (4)  
*Humanities/Social Sciences*

### Second Year

EE 100A (4)  
*Electronic Circuits*  
EE 110A (4)  
*Signals & Systems*  
ENGR 180 (3)  
*Technical Communications*  
BREADTH (4)  
*Humanities/Social Sciences*

EE 100B (4)  
*Electronic Circuits*  
EE 105 (4)  
*Simulation of Dynamic Systems*  
EE 110B (4)  
*Signals & Systems*  
BREADTH (4)  
*Biological Science*

EE 114 (4)  
*Probability, Random Variables & Processes*  
EE 116 (4)  
*Electromagnetics*  
EE 132 (4)  
*Automatic Control*  
BREADTH (4)  
*Humanities/Social Sciences*

### Third Year

### Fourth Year

EE 115 (4)  
*Analog Communications*  
EE 141 (4)  
*Digital Signal Processing*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*

CHEM 001A/01LA (5)  
*General Chemistry*  
EE 175A (4)  
*Senior Design Project*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*

EE 175B (4)  
*Senior Design Project*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*  
BREADTH (4)  
*Humanities/Social Sciences*

### Notes

Humanities/Social Sciences courses fulfill breadth requirements specific to the College of Engineering. A list of approved Breadth courses is available on the College of Engineering Student Academic Affairs website: <http://student.engr.ucr.edu/>.

\*Optional, but recommended.

\*\*Technical Electives are courses in Electrical Engineering which explore specific topics. A list of Technical Electives is available on the College of Engineering Student Academic Affairs website: <http://student.engr.ucr.edu/>, and the UCR College Catalog website: [www.catalog.ucr.edu/](http://www.catalog.ucr.edu/).

# Electrical Engineering

## Focus Areas & Technical Electives

### Intelligent Systems (IS)

*EE 146	<i>Computer Vision</i>
EE 140	Computer Visualization
EE 143	Multimedia Technologies and Programming
EE 144	Introduction to Robotics
EE 152	Image Processing

### Nanotechnology, Advanced Materials, and Devices (NMDC)

*EE 133	<i>Solid-State Electronics</i>
EE 117	Electromagnetics II
EE 134	Digital Integrated Circuit Layout and Design
EE 135	Analog Integrated Circuit Layout and Design
EE 136	Semiconductor Device Processing Lab
EE 137	Intro to Semiconductor Optoelectronic Devices
EE 160	Fiber Optic Communication Systems
EE 162	Introduction to Nanoelectronics

### Communications, Signal Processing and Networking (CSP)

*EE 150	<i>Digital Communications</i>
EE 117	Electromagnetics II
EE 128	Data Acquisition and Process Control
EE 137	Intro to Semiconductor Optoelectronic Devices
EE 143	Multimedia Technologies and Programming
EE 152	Image Processing
EE 160	Fiber Optic Communication Systems

### Control and Robotics (CR)

*EE 151	<i>Introduction to Digital Control</i>
EE 128	Data Acquisition and Process Control
EE 144	Introduction to Robotics
EE 146	Computer Vision
EE 152	Image Processing

### Computer Engineering (CE)

\* Refer to the Computer Engineering major course plan and catalog listing

### VLSI Design and Systems (VLSI)

\* Coming Soon