



Suggested Course Plan for a UC Riverside Major in

# Computer Engineering

(Catalog Year 2010)

## *Fall Quarter*

CS 010 (4)  
*C++ Programming I*  
ENGL 001A (4)  
*English Composition*  
ENGR 001G(1)  
*Professional Dev & Mentoring*  
MATH 009A (4)  
*First Year Calculus*  
BREADTH (4)  
*Humanities/Social Science*

## *Winter Quarter*

**First Year**  
CS 012 (4)  
*C++ Programming II*  
ENGL 001B (4)  
*English Composition*  
MATH 009B (4)  
*First Year Calculus*  
PHYS 040A (5)  
*Physics (Mechanics)*

## *Spring Quarter*

CS 014 (4)  
*Data Structures*  
MATH 009C (4)  
*First Year Calculus*  
MATH/CS 011 (4)  
*Intro to Discrete Structures*  
PHYS 040B (5)  
*Physics (Heat/Waves/Sound)*

## **Second Year**

CS 100 (4)  
*Software Construction*  
EE 001A/011A (4)  
*Engineering Circuit Analysis I*  
MATH 046 (4)  
*Differential Equations*  
PHYS 040C (5)  
*Physics (Electricity/Magnetism)*

EE 001B (4)  
*Engineering Circuit Analysis II*  
MATH 010A (4)  
*Multivariable Calculus*  
MATH/CS 111 (4)  
*Discrete Structures*  
BREADTH (4)  
*Humanities/Social Science*

CS 061 (4)  
*Machine Organization*  
MATH 113 (5)  
*Linear Algebra*  
BREADTH (4)  
*Humanities/Social Sciences*  
BREADTH (4)  
*Humanities/Social Science*

## **Third Year**

CS 141 (4)  
*Algorithms*  
EE 100A (4)  
*Electronic Circuits*  
EE 110A (4)  
*Signals and Systems*  
ENGR 101G(1)  
*Professional Dev & Mentoring*

EE 100B (4)  
*Electronic Circuits*  
EE 110B (4)  
*Signals and Systems*  
EE/CS 120A (5)  
*Logic Design*  
CS 153/160 (4)  
*Operating Systems/Concurrent Prog*

CS/EE 120B (5)  
*Embedded Systems*  
ENGR 180W (4)  
*Technical Communications*  
BREADTH (4)  
*Humanities/Social Science*

## **Fourth Year**

CS 122A/EE 128 (5)  
*Micro Design/Instrumentation*  
CS 161/161L (6)  
*Computer Architecture*  
BREADTH (4)  
*BIOL 002 or 003 or 005A/LA*  
BREADTH (4)  
*Humanities/Social Sciences*

CHEM 001A/LA or CHEM 003 (5)  
*General Chemistry/Concepts of Chem*  
STAT 155 (4)  
*Probability, Statistics for Engr*  
TECHNICAL ELECTIVE (4)  
*\*\*See Catalog List*  
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### **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/>.

\*\*Technical Electives are courses in Computer 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/).

## Technical Electives for 2010-2011

5 courses (at least 20 units) of Technical Electives are needed for Computer Engineering. Within the Technical Electives selected they must include CS 179 (E-Z) or both EE 175A and EE 175B. Additionally, at least 2 Technical Elective courses must come from the same focus area. The possibilities are listed below:

### A R E A S   O F   F O C U S

	Computer Architecture	Digital Design and Interface	Computer Communications	Information and Signal Processing	Computer Systems Engineering	Control and Automation
<b>CLASSES</b>						
CS 100					X	
CS 121		X				
CS 122A	X	X				X
CS 122B	X	X				X
CS 130				X		
CS 133				X		
CS 150	X			X		
CS 152					X	
CS 153					X	
CS 160			X		X	
CS 162	X					
CS 164	X		X		X	
CS 165					X	
CS 166				X	X	
CS 168		X				
CS 170				X		
CS 177	X		X			
CS 179	X	X	X	X	X	X
CS 180			X			
CS 181					X	
CS 183					X	
CS 193	X	X	X	X	X	X
EE 105						X
EE 115			X			
EE 128		X				X
EE 132						X
EE 133*	X	X			X	
EE 134*	X	X			X	
EE 135*	X	X			X	
EE 141		X				
EE 144						X
EE 146				X		
EE 150			X			
EE 151						X
EE 152				X		
EE 175A	X	X	X	X	X	X
EE 175B	X	X	X	X	X	X