

## PPCC Computer Engineering Transfer Guide 2008-2009

Below is the four-year sample program for Computer Engineering students at UCCS. Courses in bold with an asterisk (\*) can be taken at PPCC either prior to coming to UCCS or concurrently at both campuses. To graduate within 4 years, a student would have to be concurrently enrolled for the duration of the degree program. To assure ease of transfer it is recommended that you contact the UCCS Engineering Advisor (719-255-3427) before each semester.

A more structured Engineering Concurrent program also is available to students who meet the admission requirements. Check out the transfer website for more information:

[http://www.uccs.edu/~transfer/ENG\\_Concurrent\\_Program/engineering\\_concurrent\\_program.htm](http://www.uccs.edu/~transfer/ENG_Concurrent_Program/engineering_concurrent_program.htm)

<b>Freshman Year</b>	
<i>Fall Semester (16 semester hours)</i>	
* <b>MATH 135 Calculus I (MAT201 @ PPCC)</b>	4
* <b>ENGL 131 Rhetoric and Writing I (ENGL121 @ PPCC)</b>	3
ECE 1001 Introduction to Robotics	3
* <b>CS 115 Principles of Computer Science (CSC160 @ PPCC)</b>	3
* <b>Social Sciences/Humanities Elective (see list below)</b>	3
	<b>Total 16</b>
<i>Spring Semester (17 semester hours)</i>	
* <b>MATH 136 Calculus II (MAT202 @ PPCC)</b>	4
* <b>PES 111 General Physics I (PHY211 @ PPCC)</b>	4
ECE 1021 Computer-Based Modeling & Methods of Engineering	3
* <b>CS 145 Data Structures &amp; Algorithms (CSC161 @ PPCC)</b>	3
* <b>Social Sciences/Humanities Elective (see list below)</b>	3
	<b>Total 17</b>
<b>Sophomore Year</b>	
<i>Fall Semester (16 semester hours)</i>	
* <b>MATH 235 Calculus III (MAT203 @ PPCC)</b>	4
* <b>PES 112 General Physics II (PHY212 @ PPCC)</b>	4
ECE 2610 Introduction to Signals & Systems	4
ECE 1411 Logic Circuits I	2
CS 208 Programming in UNIX	2
	<b>Total 16</b>
<i>Spring Semester (15 semester hours)</i>	
* <b>MATH 215 Discrete Mathematics (MAT215 @ PPCC)</b>	3
ECE 2205 Circuits & Systems I	4
ECE 2411 Logic Circuits II	2
CS 330 Software Engineering	3
* <b>Social Sciences/Humanities Elective (see list below)</b>	3
	<b>Total 15</b>
<b>Junior Year</b>	
<i>Fall Semester (16 semester hours)</i>	
ECE 3210 Electronics I	3
ECE 3420 Microprocessor Systems Laboratory	1
ECE 3430 Introduction to Microcomputer Systems	3
ECE 4242 Advanced Digital Design Methodology	3
CS 306 Object-Oriented Programming Using C++	3
ENGL 309 Technical Writing and Presentation	3
	<b>Total 16</b>

<p><i>Spring Semester (16 semester hours)</i></p> <p><b>*MATH 340 Intro to Differential Equations (MAT265 @ PPCC)</b> 3</p> <p>ECE 3440 Microcomputer Systems Laboratory 1</p> <p>ECE 3610 Engineering Probability and Statistics 3</p> <p>ECE 4480 Computer Architecture and Design or CS 420 Computer Architecture I 3</p> <p>CS 472 Design and Analysis of Algorithms 3</p> <p><b>*Social Sciences/Humanities Electives (see list below)</b> 3</p> <p style="text-align: right;"><b>Total 16</b></p>	
<p><b>Senior Year</b></p>	
<p><i>Fall Semester (16 semester hours)</i></p> <p>ECE 4330 Embedded Systems Design 3</p> <p>ECE 4890 Senior Seminar 1</p> <p>CS 450 Operating Systems I 3</p> <p>Technical Electives 3</p> <p><b>*Science Elective (see list below)</b> 6</p> <p style="text-align: right;"><b>Total 16</b></p>	
<p><i>Spring Semester (16 semester hours)</i></p> <p>ECE 4899 Design Project 3</p> <p>Technical Electives 7</p> <p><b>*Social Sciences/Humanities Electives (see list below)</b> 3</p> <p><b>*Free Elective (see list below)</b> 3</p> <p style="text-align: right;"><b>Total 16</b></p>	
	<b>Total Hours 128</b>
<p><b>Science Requirements for BS in CpE degree</b></p> <p>Students must choose 6 credit hours (<i>ch</i>):</p> <p>CHEM 103-5 ch (<b>CHE111 @ PPCC</b>)</p> <p>CHEM 106-5 ch (<b>CHE112 @ PPCC</b>)</p> <p>BIOL 110/111-3/1 ch (<b>BIO111 @ PPCC</b>)</p> <p>BIOL 115/116-3/1 ch (<b>BIO112 @ PPCC</b>)</p> <p>GEOL 101-4 ch (<b>GEY111 @ PPCC</b>)</p> <p>GEOL 102-4 ch (<b>GEY121 @ PPCC</b>)</p> <p>Any Physics (PES) course that has a prerequisite of PES111</p> <p><b>Note: PPCC students receive 2 hours of credit for PES 115/215 when they transfer PHY 211/212 in addition to credit for PES 111/112.</b></p>	
<p><b>Social Sciences/Humanities Requirements for Computer Engineering degree</b></p> <p>Computer Engineering students at UCCS are required to take 15 credits of social sciences and humanities so that they can be more aware of their social responsibilities and better able to consider related factors in the decision making process. To ensure this, a minimum of 9 hours in social sciences and 6 hours in humanities, or vice versa, must be taken; at least 6 of these hours must be beyond the introductory level (200 level or higher course). Breakouts by areas are as follows:</p> <ul style="list-style-type: none"> <li>- <b>Social Science Departments:</b> Anthropology, Communications, Economics, Geography and Environmental Studies, Gerontology, Political Science, Psychology, Sociology and Women's Studies.</li> <li>- <b>Humanities Departments:</b> Art History, Ethnic Studies, English (150 or higher classes), History, Humanities, Music (except choir or lessons) and Philosophy.</li> </ul> <p><b>Note: PPCC students should look closely at the PPCC to UCCS transfer course listing to ensure that they will meet the appropriate department distribution and the 200+ level requirement.</b></p>	
<p><b>Technical Elective Requirements for Computer Engineering degree</b></p> <p>All CpE students are required to take at least 15 hours of technical electives to satisfy requirements for technical breadth and depth. (Students must meet course prerequisites). Of these 15 hours at least 6 hours must come</p>	

from Computer Science and at least 6 hours must come from Electrical Engineering. The other 3 hours can come from either area or from an outside engineering area like Mechanical or Mathematics.

**\*MATH 313 Introduction to Linear Algebra (MAT255 @ PPCC)**

**Free Electives for the Computer Engineering degree**

Free elective credit may come from any academic coursework, except Mathematics courses below MATH 135 (MAT201) and only 3 credit hours of Computer Science below CS 115 (CSC160).