

**CPCC, Department of Electrical and Computer Engineering
EGR 212, Spring 2013, Homework #1**

Due: The next class day at the beginning of class (20 points)

Assignment should be typed (except for the last problem), a hard copy turned in to instructor

1. (1) Is using someone else's typed assignment and changing the name to your name considered cheating? Why or why not?
2. (1) Is it acceptable to give someone a copy of your homework assignment before the due date/time? Why or why not?
3. (1) What would be considered cheating on a computer project assignment?
4. (1) What are the valid excuses for missing a homework turn-in deadline and being able to turn it in late?
5. (1) When is it acceptable to talk in class on your mobile phone?
6. (1) What is the difference between a profession and a career (or job).
7. (1) Convert the following 8-bit binary digits to an ASCII string of characters:
01001000 01100101 01101100 01101100 01101111
8. (1) Convert the decimal number 800 to binary. **SHOW ALL OF YOUR WORK!**
9. (1) Convert the following ASCII code to hexadecimal: Science is cool!!!
10. (1) Convert the following (unsigned) binary numbers to hexadecimal then to decimal:
a) 100 b) 1010 c) 1000000 d) 111110
11. (1) Convert the following Hexadecimal numbers to binary then to decimal
a) FF b) F0A1 c) 0F100 d) 100
12. (1) Using our understanding of binary data compression (ie. 000000000000 compresses to 00, 000000000001 compresses to 01, 111111111111 compresses to 10, and 11 represents a **non-compressed** encoding: decompress the following:
00 00 01 10 11 010101010101 00 00 10 10
13. (1) Using the compression scheme above, compress the following unencoded stream:
000000000000 000000000001 100000000000 111111111111 110101101010
14. (7) Write each of the 10 parts of the IEEE code of ethics in your own words (number them the same please.)