

1) Course Goals

- ① Fun & rewarding course
- ② Programming skills
 - A) OOP (using C++) & structured programming using C
 - B) basic algorithms
 - C) data structures
 - D) Scripting (using Python) for automation & verification tasks
 - E) software management techniques
- ③ Obtain job referrals, interviews

2) Course Expectations

- stay COVID-free & safe
- follow USC academic integrity rules
- attend lecture & discussion
- take notes during lecture/discussion
- participate in class & discussion via questions & answers
- aim to top the class
- review posted material in advance to the corresponding lecture
- do mandatory assignments
- stay quiet/respectful of others during lectures
- check BB regularly for class updates
- keep course material confidential

3) The variable assignment in Python is based on dynamic memory allocation. When y is assigned x ($y=x$), a new section of memory is allocated of the size of the value of x and y points to the location that value is stored.

8) The following code will be executed forever. My compiler gave me the following warning when I attempted to run the code: "Result of comparison of constant ~~300~~ with expression of type 'unsigned char' is always true." An unsigned char can only represent the numbers 0-255. Therefore this code will continue to repeat forever because when $i=255$, $i++$ will cause an overflow error and give $i=0$. \therefore the loop will never terminate because i can never be greater than 255, much less 300 (2×150).