

CST 357/457

Michael Ruth

Homework #1

Due: 9/18/23 (by midnight)

Undergraduates & Graduate Students:

For this assignment, you will be writing a C program. You will create a folder which contains the program and then zip the folder for submission to blackboard. Please be sure to document your programs appropriately. You must rename the file using your last name followed by your first name followed by a dash followed by the assignment name (For instance, this is homework1, so I'd turn it in as RuthMichael-Homework1.zip)

BMI Calculator:

- a. **(15%)** Write a program that repeatedly asks if they want to calculate their BMI,
- b. **(20%)** if so, then it asks for their weight (pounds) and height (inches), then calls a function (see c)
- c. **(20%)** create a function that takes the integer weight and integer height and returns the user's BMI (as a double)
- d. **(20%)** Create another function that takes the bmi as a double and prints the correct response based on the user's BMI: underweight, normal, overweight, or obese
- e. **(20%)** The output, should be:
Given your weight: X and your height: Y, your BMI is Z which makes you A
(where X is the given weight, Y is the given height, Z is the calculated BMI from c and A is the calculated result from d)
- f. **(5%)** NOTE: repeatedly asks indicates that the program will continually ask the user if they would like to calculate their BMI. Read a **character** [y] to indicate yes or [n] to indicate no. If the user indicates no, then the program stops, otherwise continues
- g. Please name the program/file: **bmi.c**

Note:

- If you don't turn in the file in the correct format, I will take **10 points** off the total score.
- If you don't name the files or methods correctly, I will take **10 points** off the total score.
- You **SHOULD NOT** need to use material learned outside this class. If you choose to do so, you will earn **NO** points on this homework.
- If someone else turns in your homework, you both get a zero whether or NOT you know each other.
- Do **NOT** try to do this last minute!