EECE416 Microcomputer Fundamentals   Fall 2021
Dr. Charles Kim

* This document is 2 pages long.

Code1 Assignment (100 points)

A. Coding subject

There are 4 problems in this coding assignment: (1), (2), (3), and
(4).   Your problem for this coding assignment is randomly allocated
by the last digit of your Howard University ID.

Write and run (or debug) a code which converts a temperature in
Fahrenheit (Tf) to a temperature in:
(1) Celsius (Tc) if **the last digit** of your HU ID is **0 or 1**.
(2) Kelvin (Tk) if **the last digit** of your HU ID is **2 or 3**.
(3) Delisle (Td) if **the last digit** of your HU ID is **4, 5, or 6**.
(4) Romer (Tr) if **the last digit** of your HU ID is **7, 8, or 9**.

A simplified temperature conversion table is given below:

$$Tc = (Tf - 32) \times \frac{5}{9} \quad \text{Celsius}$$

$$Tk = Tc + 273 \quad \text{Kelvin}$$

$$Td = (212 - Tf) \times \frac{5}{6} \quad \text{Delisle}$$

$$Tr = (Tf - 32) \times \frac{7}{24} + 8 \quad \text{Romer}$$

B. Code Specification

(a) Input interface: Read Tf from the keyboard in decimal format
(b) Output interface: Display the result of a temperature in different
scale on the screen (or console) in decimal format.

C. Submission

(a) A <u>report</u> which includes the code itself, debugging/running
results, and screen captures. The file name for the report:
ASM1_LastName.xxx
(b) The <u>code</u>. The file name for the ASM code: **ASM1_LastName.asm**

(c) Submission of (a) and (b) above via email or Slack
(d) Submission due: **8pm Wed Nov 17, 2021**
(e) Submission due extension: usually granted upon request

D. Score Distribution and Scoring Rubrics   - Total points - 100

100 pts	**Distinctively different and original code** with <u>correct</u> results as captured/described in the report and as its code tested by the instructor
80 pts	**One of the similar codes** with <u>correct</u> results as captured/described in the report and as its code tested by the instructor
60 pts	**Distinctively different and original code** with <u>incorrect</u> results either as captured/described in the report or as its code tested by the instructor
50 pts	**One of the same or almost identical codes** with correct results as captured/described in the report and as its code tested by the instructor
30 pt	None of the above
0 pt	No submission