

Homework # 4

Due: Monday Jul 24, 2017 at 5 pm

Part I: Practice and Theory

1. Study for Midterm.
2. Midterm Review Quiz (10 points). Only one attempt allowed, no time limit.

Part II : Programming

3. Coding Exercise (40 points).

Write a program following the instructions below. Submit the source code to *ccl.e.ucla.edu*. The code should include header comments as in previous homeworks. Compile and run your program to make sure it works. In addition, you will be graded on good coding practices.

Instructions: Write a program that calculates your final grade by prompting the user to input your course grades. Use the grading system in the syllabus: 20% for Homework, 25% for each Exam, and 30% for the Final Exam, making sure to include the option to substitute the final exam for one exam grade that is lower than the final exam. A sample output is shown in Figure 1. The program outputs a table of your grades and the grade letter you would get in the class. The code must satisfy the following:

- Grades should be restricted between 0 and 100, output error otherwise .
- Grade outputs should have 2 decimal places.
- Include the grading option to replace one of the lowest exam grade by the final exam grade.
- Show the course letter grade according to the following grading scale:

A [93,100]	A- [90,93)	B+ [87,90)
B [83,87)	B- [80,83)	C+ [77,80)
C [73,77)	C- [70,73)	D+ [67,70)
D- [61,63)	D [63,67)	F [0,61).

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PIC 10A GRADE CALCULATOR
Homework grade (%) = 87
Exam I grade (%) = 75
Exam II grade (%) = 54
Final Exam grade (%) = 90

CATEGORY          GRADE
HOMEWORK           87.00
EXAM I             75.00
EXAM II            90.00
FINAL              90.00
OVERALL GRADE      85.65
CLASS GRADE        B
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Figure 1: Hmw4 sample output