



Weighted Grade Book Project

Due Date:

Understanding how weighted averages work will be a very important topic for you in this course, since your grades are determined in this way. In this project, you will create an Excel spreadsheet that can calculate a student's final grade in a course. You will then write a reflection paper answering several questions regarding your project.

In this project you are required to do the following:

1. **Create an Excel spreadsheet** that will be capable of calculating a student's final grade in a given course. Keep in mind that weighting is involved in determining the final grade. Your Excel spreadsheet should contain the following:
 - ☐ Your **name**, course name and project name.
 - ☐ The scores provided on the next page
 - ☐ Category averages
 - ☐ The weights used to determine the final weighted grade for the course
 - ☐ A labeled cell with the **Final course grade** that uses a **formula** to calculate the weighted average grade for the course. *If a value is changed in your spreadsheet, your final calculation should recalculate.* Please limit your use of Excel functions to those used in the course-packet (for a list see the 'Excel Reference sheet' in Ivy Learn's 'Excel Help' Module).
 - ☐ In addition to correctly calculating the final grade, your spreadsheet should be **well-organized**, with **clear labels**
2. Write a **typed** reflection paper (minimum one page). Remember that we are looking for elegant and sophisticated reasoning. It must include the following information: Your **name**, course name and project name.
 - ☐ An explanation of how the final grade is calculated and how Excel is used in this process.
 - ☐ Analyze and reflect on the results for the student data provided. What is the **final course score** you determined based on the initial data provided? What letter grade is this?
 - ☐ The student wishes to know what changes she could have made to increase her grade to the next higher letter grade. Could the student receive the next higher letter grade by improving any individual score from any category? If it is possible, what was the **minimum new score** that would achieve an increase of a letter grade for her course grade? Consider at least two scenarios to answer this question. If not possible, explain why.
 - ☐ The student also has questions about how labs were scored. The labs were initially graded out of varying points to reflect the increasing difficulty of the labs. The student initially received scores of 18/50, 60/75, and 91/100. Note that the scores for these labs are listed in the data as percentages equivalent to these ratios. Could scoring the labs out of points rather than percentages affect the category average for the labs? Explain why or why not.
 - ☐ The student had perfect attendance for the semester and feels that attendance and participation should have counted for something. Suppose the instructor agrees to count attendance as 5% of the grade. Create a new weighting system that includes attendance as 5% and explain why/how you chose your new weight values. What final course grade would the student earn under your new category weighting system?
 - ☐ Reflect on the results of your project. What have you learned from doing this project?

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In addition to addressing the given statements, your project should:

- ☐ Contain a paper that is well organized and in paragraph form (not just bulleted answers!).
- ☐ Contain a paper that is clear to someone who is not familiar with the project. (i.e. don't assume that you are writing this to your instructor, make sure anyone could understand your statements.)
- ☐ Give specific values (i. e. quantify statements).
- ☐ Provide support for your statements (e.g. explain how values were found and justify statements).
- ☐ Contain a spreadsheet using the original grade values given below.
- ☐ Use appropriate representations (tables, color, formatting) that will help the reader understand the project.
- ☐ Have sophisticated and elegant solutions.
- ☐ **Project should be your original work. Copying someone else's work is cheating. Sharing your work with someone else is cheating.**

3. Submit both an Excel and Word file following your instructor's directions for submission.

Use the following parameters and scores in your Excel spreadsheet

Create an Excel spreadsheet that will compute the following sample student's data set for the course described below. Assume all scores are out of 100 and that all grades have been recorded for this student.

Grading and Evaluation Rules for CHMT 250 Environmental Chemistry:

Methods of Evaluation: There will be an Exam 1, Midterm and Final Exam in this class. Three major Labs will also be assigned. Homework and ten quizzes will also be part of the course grade. **This course requires a C or better for transfer requirements.**

Final Grade Calculation:

Homework	5%
Labs	20%
Quizzes	15%
Exam 1	15%
Midterm	20%
Final Exam	25%

Grading Scale:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

A student has the following grades in each category:

Attendance:	16 days present out of 16 days
Homework:	80, 84, 82, 82, 86, 86, 88, 87, 84, 84, 58, 63, 72, 0, 70, 50
Quiz:	96, 97, 98, 95, 92, 95, 96, 78, 72, 65
Labs:	36, 80, 91
Exam 1:	95
Midterm:	82
Final Exam:	65