

Calculating Grades in Classes

From Steve J. Hodges at Cabrillo College

The grading of a course is unique to each professor. Some of your grades may be based off of weighted averages, while others may be based on total points earned. It is important to know how your grade is calculated so you can predict your final grade in the class.

Calculating a grade in a class that uses weighted averages:

1. Find the percentage of your total grade from each grading category.

Example:

The final grade in class EX 101 is calculated as follows:

Projects (Homework) 50% (or 0.5)

Exams 40% (or 0.4)

Lab Hours 10% (or 0.1)

2. In each category, calculate the amount of points earned on **each assignment**, the points earned in **each category**, and the **total points possible**.

Example:

A student in EX 101 achieves the following scores:

Project 1 80/100 Midterm 132/150

Project 2 95/100 Final Exam 142/200

Project 3 72/100 Lab Points 72/72

Project 4 84/100

Project 5 94/100

Projects Total:

80+95+72+84+94 = 425 points earned 100+100+100+100+100= 500 points possible

Exams Total:

132+142 = 274 points earned 150+200= 350 points available

Labs Total:

72 points earned 72 points available

3. For each category, divide the total points you've earned by the total points possible in that category.

Example:

Projects: **425/500 = 0.85**

Exams: **274/350 = 0.78**

Lab Points: **72/72 = 1.00**

4. For each category, multiply the **result of step 3** by the **percentage that category is worth (step 1)** to get the **final result** for that category.

Example:

	<u>% of Grade (step 1)</u>	<u>Your Score (step 3)</u>	<u>Multiply to get Final Result</u>
Projects	0.50	0.85	$0.50 \times 0.85 = \mathbf{0.425}$
Exams	0.40	0.78	$0.40 \times 0.78 = \mathbf{0.312}$
Lab	0.10	1.00	$0.10 \times 1.00 = \mathbf{0.10}$

5. Add all of the final results from each category, and multiply by 100 to find your final percentage and grade.

Example:

$0.425 + 0.312 + 0.10 = 0.837 * 100 = 83.7\%$ and a final grade of "B"

Please note: letter grades may be based off of different percentages in your class. Check your syllabus for more information.

Score Required	Letter Grade
90%	A
80%	B
70%	C
60%	D
50%	F

Calculating a grade that uses total points earned

1. From your syllabus, find the total number of points available for the course.

Example:

Projects: 500 points
Exams: 350 points
Lab: 72 points

2. In each category, calculate the amount of points earned on **each assignment**, the points earned in **each category**, and the **total points possible**.

Example:

A student in EX 101 achieves the following scores:

Project 1	80/100	Midterm	132/150
Project 2	95/100	Final Exam	142/200
Project 3	72/100	Lab Points	72/72
Project 4	84/100		
Project 5	94/100		

Projects Total:

$80+95+72+84+94 = \mathbf{425 \text{ points earned}}$ $100+100+100+100+100 = \mathbf{500 \text{ points possible}}$

Exams Total:

$132+142 = \mathbf{274 \text{ points earned}}$ $150+200 = \mathbf{350 \text{ points available}}$

Labs Total:

$\mathbf{72 \text{ points earned}}$ $\mathbf{72 \text{ points available}}$

3. Add up the total amount of points earned, and add the total points possible. Divide total points earned by total points possible and multiply by 100 to find your final percentage and grade.

$425+274+72 = \mathbf{771 \text{ points earned}} > 500 + 350 + 72 = \mathbf{922 \text{ total points}} > 771 / 922 = \mathbf{0.836} > 83.6\% \text{ or } \text{"B"}$