# Math 2210 - Final Grade Calculations 

University of Utah

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This is an explanation of how your final grade for math 2210 was calculated. It's basically the same as I explained it on the syllabus, with some slight modifications. Note that none of the modifications harm your final grade, but they may improve it.

Your percentage grade on assignments was just a simple sum of all your assignment scores, divided by the total possible points on assignments. This percentage was then multiplied by $30 \%$ to get the assignment contribution to your final percentage:

$$
\begin{gathered}
\frac{A P}{M P A P} \times 30 \%=A C . \\
A P=\text { Assignment Points } \\
M P A P=\text { Maximum Possible Assignment Points } \\
A C=\text { Assignment Contribution }
\end{gathered}
$$

As for quiz scores I first curved them, adding 1 to your quiz 2 score and 12 to your qiuz 3 score. I then dropped the lowest quiz score after the curve, and then determined if your middle quiz percentage was higher than your percentage on the final. Depending on which of these were the case your quiz contribution to your final percentage was:

- Final Percentage Lower than Curved Middle Quiz Percentage :

$$
\frac{H C Q S}{50} \times 20 \%+\frac{M C Q S}{50} \times 20 \%=Q C
$$

- Final Percentage Higher Than Middle Quiz Percentage :

$$
\frac{H C Q S}{50} \times 20 \%+\frac{M C Q S}{50} \times 10 \%=Q C
$$

$H C Q S=$ Highest Curved Quiz Score
$M C Q S=$ Middle Curved Quiz Score
$Q C=$ Quiz Contribution
Finally, the final exam I graded out of 100 points. The final was either worth $30 \%$ of your grade or $40 \%$ of your grade, depending upon whether your final percentage was better than your middle quiz percentage. So, your final contribution was:

- Final Percentage Lower Than Curved Middle Quiz Percentage :

$$
\frac{F S}{100} \times 30 \%=F C
$$

- Final Percentage Higher Than Curved Middle Quiz Percentage:

$$
\frac{F S}{100} \times 40 \%=F C
$$

$$
\begin{aligned}
& F S=\text { Final Score } \\
& F C=\text { Final Contribution }
\end{aligned}
$$

Your total score is just the sum of the three contributions:

$$
\begin{gathered}
T S=A C+Q C+F C . \\
T S=\text { Total Score } \\
A C=\text { Assignment Contribution } \\
Q C=\text { Quiz Contribution } \\
F C=\text { Final Contribution }
\end{gathered}
$$

Now, I promised some students than if they studied and learned the material and did better on the final than they did in the class that I'd take that into consideration in calculating final grades. Well, the median and mean scores on the final were very comparable to the median and mean total scores, and the standard deviations were quite similar as well. So, I just decided that if your final score was higher than your total score, I'd just use your final score in calculating your final grade. So, for example, if your total score was 81 , while your final score was 86 , I'd use the 86 in calculating your final grade. This improved a few students' final grades, and about two or three students' final grades substantially (by more than one grade bucket).

The final grade buckets were:

$$
\begin{gathered}
\text { A }: 93+ \\
\text { A- }: 90-93 \\
\text { B+ }: 87-90 \\
\text { B }: 83-87 \\
\text { B- }: 80-83 \\
\text { C+ }: 77-80 \\
\text { C }: 73-77 \\
\text { C- }: 70-73 \\
\text { D+ }: 67-70 \\
\text { D }: 63-67 \\
\text { D- }: 60-63 \\
\text { F }: 60-
\end{gathered}
$$

I rounded up, in that if, for example, you had a final score of 72.6 I'd round that to a 73 and give you a C and not a C-. However, if you had a $72.1 \%$ you'd still get a C-

The number of people achieving the various final grades were:
A: 11
A-: 2
B+: 0
B: 9
B- : 4
$\mathrm{C}+: 2$
C: 3

$$
\begin{gathered}
\text { C- }: 1 \\
\text { D+ }: 0 \\
\text { D }: 9 \\
D-: 3 \\
\text { F:5 }
\end{gathered}
$$

If you have any questions or concerns about this please let me know. Thanks for a great class. Good luck and best wishes in all you do.

