

M E 345 Grading Scale and Grade Calculator

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Grading Scale

In the “old days,” the grading scale was much simpler – 90% was an A, 80% was a B, 70% was a C, and 60% was a D. When Penn State adopted the plus/minus grading system several years ago, Professor Cimbala decided to keep the same scale as the previous one, but simply [interpolated linearly for the plus and minus grades, keeping 90% as an A](#). Thus, this is the standard grading cut-off scale that Professor Cimbala has adopted for all his courses:

Cut-off score (%)	Letter grade
90.00	A
86.66	A-
83.33	B+
80.00	B
76.66	B-
73.33	C+
70.00	C
60.00	D
0.00	F

This grading scale is *not* open to negotiation. If you end up just below one of the cut-offs, Professor Cimbala will look very carefully at your homework and exam scores, and at your class participation to see if you can legitimately be bumped up to the higher grade. If not, nothing can be done to change your grade. It is inevitable that someone is always just below the borderline. Such is life.

Grade Calculator

You can calculate your course grade using the following formula, where all homework, quizzes, class participation, and exam scores are reported as 0 to 100 points, lab precalculations as 0 to 20 points, and group lab reports as 0 to 80 points. The final score then ranges from 0 to 100 points.

$$\begin{aligned}\text{Score} = & [(\text{sum of all homework scores out of 100 each})/(\text{number of homeworks})]*0.24 \\ & + [(\text{sum of all lab precalculation scores out of 20 each})/(\text{number of labs})]*0.24 \\ & + [(\text{sum of all group lab report scores out of 80 each})/(\text{number of labs})]*0.24 \\ & + [(\text{sum of all quiz scores out of 100 each})/(\text{number of quizzes})]*0.21 \\ & + (\text{Average class participation grade out of 100})*0.05 \\ & + (\text{Final exam grade})*0.26\end{aligned}$$

Note: There will be 12 homeworks and 12 labs. Thus,

- Each homework set counts as $24/12 = 2\%$ of your final course grade.
- Each lab precalculation set counts as $24*0.2/12 = 0.4\%$ of your final course grade.
- Each lab report counts as $24*0.8/12 = 1.6\%$ of your final course grade.
- Each quiz counts as $21/7 = 3\%$ of your final course grade.
- Class participation counts as 5% of your final course grade.
- The final exam counts as 26% of your final course grade.
- Lab participation will also be considered if you are on the border when final grades are being tallied. In that case, good lab participation may help bump you to the next higher letter grade. Likewise, poor lab participation will ensure that you do *not* get bumped to the next higher letter grade.