Math 116 – Sec. 2 Spring 2023

# Homework Polices

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Recall the following breakdown for your final grade:

Assignment	Course points	Percent of final grade
Homework	150 pts	25%
Exam 1	$100 \mathrm{~pts}$	16.67%
Exam 2	$100 \mathrm{\ pts}$	16.67%
Exam 3	$100 \mathrm{\ pts}$	16.67%
Final Exam	$150 \mathrm{~pts}$	25%
Total	600 pts	100%

The points for the "homework" assignments (quotes because they are not all what you would think of as homework) are further divided into three categories: Webassign, written, and quizzes. Each of which are described below. Also below is the breakdown of the course points for the homework category.

Homework	Course points	Percent of final grade
Webassign	90 pts	15%
Written	30 pts	5%
Quizzes	30 pts	5%
Total	150 pts	25%

## Webassign

Webassign is discussed in the course policies. As far as grading goes, there are 24 Webassign assignments, worth various amounts of points. I will effectively drop 2 of these assignment. What do I mean by "effectively"? So, normally if you drop to assignments us sum up the points you earned on all but the two lowest assignments and divide that by the sum of the possible points for those assignments. I will be doing something better, I will be summing up the points you earned on all the assignments (every point counts) and will be dividing that by the sum of the possible points minus twice the average number of points an assignment is worth. However I will not give anyone more than 100% on their final Webassign score. Because I will be effectively dropping two Webassign assignments, I will not accept late work without proper documentation.

The due dates for the Webassign assignments are all on Webassign, the course calendar and the week they are do is also indicated on the course policies document. However, I may change some of these due dates if circumstances warrant it.

The way to access Webassign, is to go through the widget on our class D2L page. Here is a link to a webassign tutorial that may be helpful: https://www.youtube.com/watch?v=2eP385K0djg

### Written Homework

Written homework will be assigned and submitted in Gradescope. The assignments will be made available at least one week before the due date. The due dates can be seen in Gradescope. The *tentative* due dates are on the course calendar and course policies document. I anticipate there being around 8 of these assignments, depending on the needs of the class this number and due dates may be adjusted. Three of these assignments will ask for an *exercise essay* described below. Each assignment will be out of ten points except for those with an exercise essay which will be out of 20 points. I will effectively drop at least one written homework assignment when I compute final grades. And so, here again, I will not accept late work without proper documentation.

A written homework assignment will generally consist of two problems from the textbook. The problems will emphasize business applications and the grading will take particular note of the written explanations and interpretations, as well as the mathematical notation. While students are permitted to work together on their written work, the work submitted must be one's own. Copying work from another student will not be tolerated. Students who copy another person's work are violating the university's Code of Academic Integrity and may be subject to penalties described in the Code.

Students are expected to complete the following procedures to receive full points on their written work assignments.

- 1. Show and clearly explain the method(s) used to solve the problem as well as providing correct interpretations for each solution. Proper mathematical notation should be used and the student's work should be neat and well-organized in the final draft that is submitted. Points will be awarded for correctness and completeness. Simply giving an answer is not acceptable and will receive little or no credit.
- 2. Clearly indicate the final answer.

#### Exercise Essays

An exercise essay is simply a comprehensive written exposition of how you solved the indicated exercise. For completeness (and full credit) it must include the following elements

- Summarize the whole exercise. This can be done by describing the final outcome but providing just what is necessary to understand it.
- Background information from the problem statement or otherwise.
- Address each of the questions in the exercises and answer then while explaining your reasoning. (If you use any equations from the text cite them as shown in the example.)
- Brief conclusion.

Also, the essay must be typed. So, you may need to learn how to put equations or even a plot in a document. Here is an example of an exercise essay:

 $<sup>^1\</sup>mathrm{See}$  discussion above in the Webassign section

Sec 1.4 problem 81ac Corporate Fraud

This problem uses data from the FBI of fraud cases in 2008 and 2012 to create a linear model which is used to estimate the number of fraud cases in 2016. According to the data, at the begin of 2008 there was a total of 545 pending fraud cases. Than at the beginning of 2012 that number was 726 cases. The problem asserts that growth of this quantity is approximately linear.

The problem ask to derive an equation of the line passing through the points (0, 545) and (4, 726), The numbers 0 and 4 are identified with the years 2008 and 2012, respectively, for computational convenience. To find this equation I first need to find the slope. To do that I will use equation (3) is section 1.4 of the text and get

$$m = \frac{726 - 545}{4 - 0} = \frac{181}{4} = 45.25$$

cases per year. With the slope in hand I will now use equation (4) in the same section to get the equation for the line. This simplifies to (replacing x with t)

$$y - 545 = 45.25(t - 0) \Rightarrow y = 45.25t + 545.$$

This equation models the number of pending fraud cases y, t years after 2008. So, using this model we can predict that in 2016 (t = 8) there were

$$y = 45.25 * 8 + 545 = 907$$

pending fraud cases.

In this problem we used prior data to estimate that in 2016 there were approximately 907 pending fraud cases.

You will be writing three exercise essays throughout this course. One at the beginning, one in the middle and one at the end. A rubric will be provided on Gradescope.

## Quizzes

Quizzes are generally given in class, with the exception of the Quiz 1 which will be a Google forms survey. This will be graded on completion (meaning if you complete it you will get full credit). Quiz 2 will be an in class quiz on the course objectives and learning outcomes. The remaining quizzes will be in class and will be designed to help prepare you for the exam. They will have one or two questions that are comparable to final exam questions. I will inform you of quizzes a few days prior to its being given. I anticipate a total of six quizzes one of which will be effectively dropped. These cannot be made up without appropriate documentation