

# Study Skills Project 2

Calculus 1

## Objective and Purpose

This project is designed to help you develop the study skills needed for math and science courses in college. You might already know or do some or all of these things – but probably there's something new you'll try because of this project.

There are a number of sections. Each section is independent and does not rely on the other parts of this project, hence they can be completed in any order. They are:

- Calculating your current grade.
- Resolving conflict in group projects.
- Planning for final exams.

## Due Date and Submission Instructions

You have two weeks for this project – due November 6<sup>th</sup> on Blackboard as a PDF document. A late submission suffers a 0.2% per hour penalty, while an incorrect submission format suffers a flat 20% penalty.

A word document version of this is available on Blackboard, please place your answers directly into the document by replacing the blue italicized text with your answers. Supporting handwritten calculations can be turned in on the 6<sup>th</sup>.

## Calculating your current grade

In this part you'll look at how to calculate your current course grade. There are two common grading methods. You'll need to consult the syllabus of each of your courses to determine what method they use.

### Method One – Point System

In this system, every point is equally weighted and your grade is calculated by taking the number of points earned and dividing by the number of points possible. Important assignments are worth more points.

*Do This:* In a certain class, Alice has the scores tabulated to the right. What is her current grade? Add up her points earned and divide by the points possible.

*[Answer goes here, supporting written calculations may be turned in separately]*

Item	Score
Homework 1	8/10
Homework 2	9/12
Homework 3	10/10
Quiz 1	24/25
Quiz 2	18/25
Test 1	85/100
Test 2	88/100

Now suppose you know your current grade and the total number of points that will be assigned in the term. You can calculate what you need to get the final grade you desire by solving the equation below.

(Hint: "[Needed]" is the variable)

$$\frac{[\text{Current}] + [\text{Needed}]}{[\text{Total Points}]} = [\text{Final Grade}]$$

*Do This:* Continuing the previous scenario, Alice knows that there are 230 points remaining in the semester. How many does she need to earn a 90%?

*[Answer goes here, supporting written calculations may be turned in separately]*

*Do This:* Continuing the previous scenario, How many does Alice need to keep her B?

*[Answer goes here, supporting written calculations may be turned in separately]*

### Method Two – Percent System

In this system, different categories are worth fixed percentages. Not every point is weighted equally, this is a method instructors often use to make tests or projects worth more than homework or quizzes: Important assignments are worth more percent. For example, our calculus course has the percentages given to the right.

Test 1	10%
Test 2	15%
Test 3	15%
Quizzes	5%
Activities	10%
Oral Problem Presentations	10%
STEM Residential College Activities	10%
Projects	5%
Final Exam	20%

In order to calculate a “current” grade, instructors usually calculate each of the categories available and divide by the total percentage so far:

$$[\text{Current Grade}] = \frac{[\text{Score}] \cdot [\text{Weight}] + [\text{Score}] \cdot [\text{Weight}] + \dots + [\text{Score}] \cdot [\text{Weight}]}{[\text{Weight}] + [\text{Weight}] + \dots + [\text{Weight}]}$$

*Do This:* Suppose Bob has the scores tabulated to the right. What is his current grade? Use the percentages given above.

[\[Answer goes here, supporting written calculations may be turned in separately\]](#)

Item	Score
Test 1	83%
Quizzes	86%
Activities	94%

*Do This:* Let’s try a more realistic grade calculation. Suppose Carol has the scores tabulated to the right. What is her current grade? Note that you’ll have to calculate the “Quizzes” and “Activities” score before you can use the formula.

[\[Answer goes here, supporting written calculations may be turned in separately\]](#)

Item	Score
Test 1	92%
Quiz 1	80%
Quiz 2	86%
Activity 1	98%
Activity 2	100%
Activity 3	88%

Suppose the some items are still remaining, and you want to know what you need to earn to make a desired grade in the course. You can compute this by solving the formula below. (Hint: “[Remaining Items]” is the variable)

$$[\text{Final Grade}] = [\text{Current Grade}] \cdot [\text{Sum of Current Weights}] + [\text{Remaining Items}] \cdot [\text{Remaining Weight}]$$

*Do This:* Suppose Daniel currently has a 78%, taking into account everything except the final exam. What score does he need on the final exam to bring his grade up to an 80%?

[\[Answer goes here, supporting written calculations may be turned in separately\]](#)

*Do This:* Calculate your current grade in this course. Take into account Test 1, Test 2, Quizzes, Activities, and Oral Problem Presentations. (To translate worksheet grades into numbers, use the following: 100=A+; 95=A; 92=A-; 88=B+; 85=B; 82=B-; 78=C+; 75=C; 72=C-; 68=D+; 65=D; 62=D-; 50=F+; 35=F; 20=F-)

*[Answer goes here, supporting written calculations may be turned in separately]*

*Do This:* Now calculate what you need on the remaining items to pass the course. We'll use 70% as passing, because that is the score you need to be able to take calculus II. (Although technically if your major doesn't need calculus II, 60% would still give university credit).

*[Answer goes here, supporting written calculations may be turned in separately]*

## Resolving conflict in group projects

In many of your courses you will have group projects. Most of these will probably go fine, but at some point you're not going to get along with somebody in your group. Address each of the following scenarios in a reasonable manner.

### Scenario 1 – Alice isn't working

You and Alice and two others are in a physics lab together. In this particular lab, the instructor explains the lab and then adjourns to his office next door. For the most part students complete the lab themselves in their groups, but they can go next door and ask questions when needed. There is a lab report due next week.

Alice caught on to the fact that the instructor isn't actually watching you complete the lab. Today after the instructor adjourned to his office, Alice exclaimed "Alright, I think y'all can finish this without me. I'm going to go watch some Netflix." She then starts walking out of the lab.

Choose one of the following responses and explain how you would proceed:

Response 1: Catch up with Alice before she leaves the lab and confront her. What do you say her?

Response 2: A couple minutes after Alice leaves, you go over to the professor's office. What do you say to him?

Response 3: After discussing with your group, you decide to text Alice. What message do you send her?

[\[Answer goes here\]](#)

### Scenario 2 – Alice is working too much

You and Alice and two others are in a chemistry lab together. In this particular lab, there is a quiz each week on the previous lab. Alice is very excited about chemistry. In fact, her mother is a chemist and you know this because every week she talks about other uses for the chemicals you're using that week. She's always been the one to physically work with the machines and beakers.

However, for two weeks in a row now you've discovered that you weren't really learning much. Alice has been making 100% on the quizzes, but you couldn't even recall if the blue button told the machine to agitate or to spin. (I'm trying to describe a scenario where Alice does everything and you've sat and watched and thought you were learning, but weren't)

Today you decide to have a conversation with Alice. You want to assert yourself and make sure she lets you use the equipment too. What do you say to her?

[\[Answer goes here\]](#)

### **Scenario 3 – Alice is bullying other members around**

You and Alice and two others are in a biology lab together. In this particular lab, there is a lab report due every month –they are pretty involved reports and each one is worth a considerable portion of your grade.

You and Alice have not been getting along. Earlier your group decided that you would use Google Docs to prepare your lab reports. Last week you made good headway on your section of the report, and yesterday, you noticed that your section was essentially rewritten. The rewritten version wasn't even written well. A few hours later, Alice sent you a text message saying "Yo, I had to fix all your stuff. Get your act together!" While at lunch with one of your other lab partners, you learned that there have been similar incidents between him and Alice. You send the fourth group member a message, and indeed Alice has been acting rudely to all three of you. (Alice's section has not yet been written, although she has criticized all three sections written by others)

Choose one of the following responses and explain how you would proceed:

Response 1: Talk to the others in the group, then write a letter to Alice on behalf of all three of you.

What do you say?

Response 2: Wait until the next group meeting, then start off the conversation by addressing the elephant in the room. What do you say?

Response 3: You go to the professor, and she says that you should try to resolve the issues with Alice before she considers getting involved. How do you proceed?

[\[Answer goes here\]](#)

## Planning for final exams

Your final exam is likely at a different time than your courses meet, and might even be in a different location. The university registrar sets the final exam schedule. Check your syllabi for any location change.

For each of your classes, find the time and date for your final exam. If you use a planner, record an entry for them in your planner. If you don't have a method of keeping track of important dates, you should find a method to do so. Two good options to experiment with are the physical planner you were given on day 1, or the Google Calendar attached to your UCA account.

Course	Final Exam Date	Final Exam Time

*[Fill in the table above. Add more rows if necessary]*

How do you keep track of important dates? Or how do you plan to do so if you don't yet have a method?

*[Answer goes here]*