# **CS 1371 Homework Guide**

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#### Introduction

For many of you, CS 1371 will be your first encounter with programming and thus homework assignments involving programming. Even for those of you who have programmed before, this class can be an entirely new experience. So, to make life a little easier we have created this CS1371 Homework Guide to cover the variety of details involved with the homework assignments.

# **Completing the Assignment**

If you have not already, we recommend the creation of a CS 1371 directory folder on your computer to hold each individual homework assignment.

- Create a folder for the assignment in your CS 1371 directory.
- Download the assignments files from T-Square to the assignment folder.
- Open the hw<##>.m file and fill out the information section at the top of the file, where ## corresponds to the homework number. There is typically one homework assignment a week, with usually 13-14 assignments total.
- Follow the directions outlined in the hw<##>.m file. For each problem, make sure to follow the directions carefully, especially in cases such as variable names, file names, and function headers.
- Test your code. While testing seems like a small task, it can make the difference between a zero and a hundred on an assignment. When you test your code, make sure you receive no errors and the output of your code is correct.
- Suppress your outputs. While writing code, sometimes it is useful to have MATLAB automatically display the results from running the code. However, when turning in your homework, your function should not display anything to the Command Window. This is called suppressing your outputs. To do this you need to put semi-colons at the end of any lines that may cause something to

- display to the Command Window. Not suppressing your outputs may result in a loss of points on your Homework Assignment.
- Once you have completed the entire assignment, always do one final check over to make sure everything is working properly before submitting it.

# **Submitting the Assignment**

For this class, all homework assignments will be submitted on T-Square. It is extremely important to properly submit each assignment. Failure to do so may result in a significant loss of points.

- Each assignment comes with a basic hw<##>.m file, such as hw01.m or hw14.m. In those files, there will be a section called **Files to Submit** near the top of the assignment. Compare the name of each file you are submitting to the names in the **Files to Submit** section and make sure that they correctly match up.
  - Note: Case and spelling do matter.
- Submit the assignment on T-square.

  Note: Do not archive your files into some format such as .zip or .rar
- Check to see if you received a confirmation e-mail. If you have not received a confirmation e-mail, then you may not have submitted the assignment properly and you need to resubmit your files.
  - Note: You must have a confirmation e-mail for each submitted assignment.
- Re-download your submitted files and check whether you submitted the correct files. Also, test your submitted files in MATLAB to see that they do run properly.
- If you discover any errors, then fix those errors and resubmit to T-Square. For each assignment, you can submit as many times as you want before the due date. When resubmitting, you should delete the submitted files from the submit list, resubmit each file again, even if some files did not have any errors.

# Commenting

Whenever you program, it is always a good idea to comment your code. Commenting helps you keep track of what you are attempting to code and it helps others in understanding why you wrote various lines of code. Since there is no partial credit in our homework grading system, we have added a commenting system to give some incentive to at least attempt each problem. From now on, when you write a solution to a problem, you should comment your code and explain what you were attempting to do to solve the problem. Some good places to comment would be sections of your code that directly relate with your algorithm. However, do not comment every line of code. Instead comment the lines of code that are either difficult to understand or are important steps to solving the problem.

Commenting will purely be for extra-credit purposes, so if you don't want to comment your code, you don't have to. Your Section TA will grade the comments from each homework assignment, and he or she will keep track of your commenting points throughout the semester.

Finally, if you come to help desk, you are expected to have your code commented. If a TA sees that your code is not commented, he or she has the right to move on to another student until you comment your code.

# **Two Submission Policy**

For each homework assignment, you will have two opportunities to submit the coding portion of the assignment. The first submission is the official submission and is due as labeled on the class schedule. The second submission is generally due a few days later and is given as an opportunity to improve your coding submission grade. In between the two submissions, we will try to provide feedback on your first submission. *However*, we do not guarantee that you will always receive feedback between the two submissions.

Generally, your coding homework grade will be taken as the average of the two submission grades. In some cases though, which we will specifically announce, the grade may taken as the maximum of the two grades. Also, it is guaranteed that your overall grade will never be lower than the grade you received on the first submission.

Finally, turning in a second submission is not a requirement, but if you chose to do so, you must turn in every file required for the assignment, not just the files you have changed. Also, any other portions of the assignment, such as the commented code, will still be due on the day of the first assignment unless stated otherwise.

# **Collaboration Policy**

On each homework assignment, you are allowed to collaborate with your fellow classmates. However, collaboration means working together to identify methods to solving problems, not the sharing or copying of code. If you share or copy code, you will have violated Georgia Tech's Academic Honor Code and we will prosecute you. Also, when you collaborate, make sure to reference who or what you have collaborated with in the collaboration section of the homework file. Again, *Copying or sharing of your code is a violation of Georgia Tech's Academic Honor Code and a very serious offense.* 

## **Grades**

For each assignment, your overall homework grade is made up of three parts: Homework Coding Grade (95%), ABCs Grade (5%), and the Homework Commenting Grade (10%).

Note: Homework Commenting Grades are considered extra-credit, which is why the total adds up to 110%.

# **Regrade Requests**

Since CS 1371 is a class of up to a thousand students, we use an Autograder to grade each homework assignment. The Autograder is essentially a really big MATLAB program that tests your scripts and functions to see if the outputs match the correct values for given test cases. While the Autograder has been perfected over many semesters, it still makes some mistakes now and then. That is why we give you the opportunity to request a grade appeal. However, there are very strict guidelines to requesting a grade appeal, so do not automatically request one just because you are disappointed in your grade. You should carefully follow the steps we have listed below whenever you plan to appeal a homework grade.

Note: Once homework grades have been posted, you have a week to request a grade appeal. No grade appeals will be taken past that period.

- Download the files you submitted for the homework in question. It is important that you download the files you submitted on T-Square and not use the files that are currently stored on your computer. The Autograder only checks files submitted on T-Square, so you are responsible for any differences between the files you submitted on T-Square, and the files stored on your computer.
- Since the Autograder is a MATLAB program, spelling and case does matter in the context of homework assignments. Always check to see whether you followed the naming conventions outlined in the homework. If you realize that you had accidentally misnamed a variable or file, then you may not request a grade appeal for that problem of the assignment.
- When downloading your submitted files, there should be an additional file or files known as "grade.txt". Download that file or files as they explain the grade breakdown for each problem.
- In MATLAB, run the test cases in the "grade.txt" files. If there is an error produced or noticeable inaccuracy with your answers compared to the solution outputs (homework solutions are provided in the T-Square resources section for comparison), then no consideration will be given towards grade appeals.
- If you still believe your code is correct and that the grade was a mistake, then email your section TA regarding the homework in question. In the subject line, you should write [CS 1371] Homework <##> Regrade Request. Then, in the body of the e-mail, you should specifically point out which problems were graded incorrectly. You should also make sure to include your Section, your GT username (Ex. gburdell3), and whether the regrade is for the first or second submission. Do not email your code to your TA. Your TA has access to your original submission on T-Square, and that is what they will use to check your code. If your TA agrees with you, he or she will proceed to forward the request onward to the Homework STA, who will then give consideration to your grade appeal.
- If your section TA does not approve or deny your request within a week of the day you sent your e-mail, then forward said e-mail to the Homework STA. The forwarded email message must contain the sent date of the original email.

  Note: Not following the procedures listed above may forfeit your right to request a grade appeal for the homework in question.

## **Functions You Should Never Use**

The following MATLAB functions should not be included in your code because they cause the Autograder to break. You can still use these functions while coding, but make sure to either comment the functions out, or remove them completely before submitting the files to T-Square. If these functions are not removed, you will lose a significant amount of points for that part of the assignment.

- clear
- clc
- input
- error
- figure
- disp

## **General Questions**

## • What Should I Do If T-Square Crashes?

If T-Square crashes before you submit your homework, first e-mail your section TA. When you e-mail your TA, just mention the situation, but don't attach your homework with the e-mail. Homework will never be accepted by e-mail. Also, do not e-mail your professor, for they will be aware of the situation. It is not necessary to continually check to see if T-Square returns, but you should check at points in the day. If T-Square does not return in time, appropriate action will be taken such as extending the due date. However, do not assume there will always be a homework extension if T-Square crashes. If T-Square does come back up, you are still expected to turn in the assignment.

### • What is the Grace Period?

The grace period is a three hour period after the homework due date in which you are still allowed to turn in the assignment for full credit. The grace period exists to deal with issues that may cause you to need some extra time. However, any issues that occur in the grace period are your responsibility. So, if T-square, your computer, or the internet crashes during the grace period, it is still your responsibility to submit the homework on time and there will be no allowances for it. Treat the original due date with respect, and always attempt to submit before the grace period starts. Remember, we will only accept assignments submitted through T-Square, and not through other sources such as e-mail.

# **Appendix**

## A. Downloading Assignments from T-Square

- Go to the CS-1371 tab in T-Square and under Course Tools click Assignments.
- Click on the assignment you wish to download. This will take you to the specific assignment page where it will list all additional resources for the assignment.
- Download each of these resources or the zip file by right clicking on the link and selecting Save Link As... and navigating to your CS1371 folder and saving the link there or in a specific subfolder you've created.

## C. Submitting Assignments on T-Square

- Go to the CS-1371 tab in T-Square and under Course Tools click Assignments.
- Click on the assignment you wish to submit.
- Next, click the "Add Attachments" link at the bottom of the page.
- Now click "Browse..." to select the files you wish to upload. T-Square only allows one file at a time so you may have to click "Browse..." multiple times.
- Once all the required files have appeared click "Continue..."
- Finally click the "Submit" button.
  - Note: Click the Submit button and not the Save as Draft button. Saving as Draft will not submit your assignment and it will not be graded.

#### D. How to Test Code

- Test Cases Most homework problems will have examples on what the outputs should be based on given inputs. You should always run those examples to test to see whether your code is outputting the correct values. If your code does indeed output the correct values for that test case, you are guaranteed to receive some credit for the problem. However, overall, the Autograder tests with a variety of inputs, so you should also make up your own inputs, and see if the outputs are correct and that there are no errors when running your code.
- Look in the workspace, not the command window A common mistake for students to make is to just look at the command window and see if the output displayed on the window is correct. DO NOT DO THIS. Always check the workspace to see if the correct variable has the correct output. Many times people will write code that displays the correct value, but does not actually set a variable. Do not make this mistake, for you will receive no credit for just displaying the correct value on the command window.

Good Luck and Welcome to CS 1371!