

TA Grading Guidelines

The following should be regarded as what they are: merely *guidelines* rather than hard-and-fast rules.

General Grading Guidelines

The following guidelines apply to grading both homeworks and projects:

- The grading should be as consistent as possible:
 1. For each assignment, between different students.
 2. Between different assignments, though that is less important than (1).
- To help achieve consistency, it may be a good idea to hold off on completing grading, until the late submission deadline has passed. Of course, end-of-semester and other deadlines may preclude this.
- For what seem to be minor problems, $1/2$ a point can be taken off. However, when the overall assignment grade is recorded it should be rounded up to the nearest integer.
- The guidelines given here are not inviolate and can be violated when it makes sense to do so.

Exam and Homework Grading Guidelines

- Not all homework/exam questions have exactly one answer; in fact, some homeworks questions may be vague, intentionally or sometimes unintentionally. The student's answer to such questions should be graded against what the question (and any clarifications made to it) actually specifies and not only by comparison with the solution. For such questions, the provided solution may be only one of many possible solutions.
- It is the student's obligation to ensure that work turned in is readable by any average person. A TA should not feel obligated to decipher illegible scribblings.
- It is the student's obligation to clearly indicate which answers are canceled; if there are multiple answers to the same question, then only the last answer will be graded.
- A reasonable answer should get at least 50% of the maximum points for that question.
- If a question is marked [RECORD], then the TA should record the grade obtained for that question individually for each student.

Project Grading Guidelines

- A project may be submitted multiple times before the project submission deadline. Only the last submission should be graded. It is expected that students do not abuse this privilege.

- If a project does not compile, the student should usually get no more than 65%. Depending on how complete the project is, it may get appreciably less. In this case, it is useful to look for README or other files the student may have enclosed explaining the status of his or her project.

If it doesn't compile because it appears to be missing a file, then the TA doing the grading **may** attempt to contact the student by email. However, the TA has no obligation to do so, since it is entirely the student's responsibility to ensure that the submission is complete.

- If a project compiles and passes all its runtime tests it should be guaranteed at least 85% assuming it has met **all** aspects of the project specification. Note that this does not imply that a project which fails a single test cannot get more than 85%.
- The remaining 15% should be a judgement call on the TA's part. Things like the following:

- Quality of code. Is it modular? Does it exhibit cut-and-paste reuse rather than reuse using programming constructs?

If a reader cannot understand the code because the code logic is convoluted with assignments to the same variable interspersed in complex control flow, then that is often an indication of poor code quality.

5-10 points may be taken off for particularly egregious submissions.

- Is it well-commented? Note that the important point is that the program should be easily understandable and not that it meet some bureaucratic guidelines that every function have comments in such-and-such form. Also note that a program understandable on its own with minimal or even no comments is preferable to a convoluted program which needs heavy commenting to explain its convolutions.
- Is it over-commented? Does it exhibit the `i++; /* increment i */` syndrome?
- Consistency of formatting and naming conventions. No particular style is mandated as we all have our favorites. The consistency though is important and IMHO a important indicator of how well crafted the program may be. 5-10 points may be taken off for particularly egregious submissions.
- Are there unnecessary fixed limits built into the code? Are there arrays declared with a fixed size which does not naturally follow from the problem domain?
- Are there magic numbers hardwired into code rather than being referenced via symbolic names. This is such an egregious violation of good programming practice that even a single violation can be penalized by taking off 5 points.
- Does the project use the `method(s)` and `algorithm(s)` specified in the assignment. If not, you can take off much more than 15%, depending on how far off the project went from the spirit of the assignment.

- The TA should usually merely be glancing at the code. If a test case has failed, then an attempt may be made to try finding out what caused it to fail, but usually it would be unreasonable to spend more than a couple of minutes on it.

Project should be returned to the students either by hardcopy or email. The returned material should contain at least the following:

- a) The overall grade (and breakup if applicable).
- b) A copy of the student's README file.
- c) Log of the compilation.
- d) Some description of the test case(s) used along with inputs and expected outputs.
- e) Log of the program execution.

Additionally it may also contain listings of portions of the students programs with the TA's comments added.

Accreditation Requirements

For accreditation purposes, it is necessary to track the work done by students. Specifically, if a question on a homework or exam is marked [RECORD], then the TA should record the grade obtained for that question individually for each student.

Assignment of Final Grades

For assignment of final grades, the TA should provide a printout containing all the class grades printed out as compactly as possible. There should be a row for each student sorted in descending order of overall grade (computed as per the course introduction) Besides individual assignment/exam grades, the sheet should include columns containing the overall hw, project, lab, exam grades (out of 100 after dropping as per the policy), as well as rows containing the statistics (min, max, average) for each column.

Letter grades will be assigned strictly monotonically based on the overall grades with major input from the TA. If at all possible, students whose overall grades differ by a very tiny amount will receive the same letter grade.