TO: CHE 205 TA’s and Graders  
FROM: Bullard, Beisel, Hsiao, and Abolhasani  
SUBJECT: Players and Procedures  
DATE: August 2016

This is probably the most formal we’re going to be all semester. We have a pretty substantial mob of students to deal with, though, and if we’re not all clear about who’s supposed to do what, the whole operation can degenerate into chaos pretty quickly.

Here are the 205 TA’s and graders that we currently have in place:

| Role                        | E-mail               | Office Hours       | Problem session |
|-----------------------------|----------------------|--------------------|-----------------
| Ishan Joshipura             | idjosh@ncsu.edu      | T and H, 11-noon   | T (lead), W     |
| Hannah Reese               | hrreese@ncsu.edu     | T and H, 5-6pm     | M (lead), T     |
| Ryan Dudek                 | rbdudek@ncsu.edu     | M 5-6pm, W 4-5pm   | W (lead), M     |
| Ethan Hicks                | echicks@ncsu.edu     | N/A                | N/A             |
| Melissa Lieb               | mmleib@ncsu.edu      | N/A                | N/A             |
| Carrie Wright              | cwright3@ncsu.edu    | N/A                | N/A             |

Based on our previous experience, we would like to suggest the following policies and processes:

### Roles and Responsibilities

- **TA’s:**
  - Hold office hours twice a week (60 minutes each)
  - Conduct weekly problem sessions
  - Assist with proctoring and grading tests (3 tests, Friday afternoon 3-5PM: dates are 9/16, 10/21, 11/18 and final exams 12/08, 12/12, and 12/13)
  - Check the Moodle Homework forum at least once a day and respond to questions

- **Graders:**
  - Grade weekly problem sets
  - Assist with proctoring and grading tests (3 tests, Friday afternoon 3-5PM: dates are 9/16, 10/21, 11/18 and final exams 12/08, 12/12, and 12/13)
  - Maintain spreadsheet (one person, the Recorder, does this)

- **Problem session captain** coordinates problem session content among the TA’s. The problem session captain will meet weekly with Dr. Abolhasani to discuss the content of the problem session for the next week and address any concerns that might come up.

- **Recorder** (one of the graders) maintains grade spreadsheets (kept as Google spreadsheet) and makes sure grades are entered for each assignment and test in the lecture and problem sessions and re-grades are posted. The papers must be graded and the recorder notified in time to return homework on Monday (Bullard) and Tuesday (Hsiao, Abolhasani, and Beisel).

- **Logistics:** we have access to three lockers in the CHE lounge as well as a “red box” for late homework and homework re-grades:
  - Locker #21: 02-20-34 – all three instructors will put un-graded homework sets in this locker.
Locker #22: 25-39-33 – return graded and recorded homework and completed re-grades for Hsiao and Bullard
Locker #23: 31-13-39 - return graded and recorded homework and completed re-grades for Beisel and Abolhasani in this locker
Red HW box 16-26-16 – students put late homeworks and re-grade requests. Should be emptied each Monday at 8:35am by a grader or TA (to be assigned)

This is extremely handy for hand-off of homework solutions, homework papers, etc. to maintain the security of class materials.

Exams

- TA’s and graders will be responsible for helping to proctor the exams, which are on Friday afternoons from 3-5PM, as well as the final exam. Please make plans now to be present for the three exams and the final exam grading periods afterwards. We’ll prepare detailed solution keys for the tests, instructing you how much credit to give for each part of each problem.

Problem Session

- Problem session meets weekly for 2 hours except when there is a “short week” or vacation. Times are:
  - Monday, 3:00 – 4:50pm, 1011 EB1 (Centennial campus) (2nd hour is office hours open to all)
  - Tuesday, 1:55 – 3:45pm, 2211 Gardner (main campus) (2nd hour is office hours open to all)
  - Wednesday, 1:55 – 3:45pm, 2010 Biltmore (main campus) (2nd hour is office hours open to all)
- Since it is desirable to have two people in the problem session when possible, we’d would like to have partners for problem session. One TA will be the “main” planner/lecturer on a given day, the other TA will be the helper.
- It works well to work problems/have pre-planned content for the first hour, take a break, then let the second hour be “extended office hours” where students can stay if they choose to work on homework, ask questions, etc.
- Excel instruction is typically done in the problem session with students bringing their laptops.
- You will take attendance for all problem sessions using the clickers. If a student must miss their section, he or she should let the lead TA for their session know via email, and they can attend a later section in the week and will be counted present (just be sure to note on your class roll that you have an extra person). Attendance should be given to the Recorder each week.
- If a student comes in after the clicker question has occurred, record their name but mark “Late”. If this is someone who has a legitimate excuse and must come late every week (e.g. must catch the bus from main campus for a class that gets out 15 minutes before), handle this on a case-by-case basis.
- You have the freedom to conduct the problem session as you wish, but each section should roughly cover the same content. The Problem Session captain will work with the instructors to coordinate the content and communicate that to the problem session leads. The instructors will suggest content for the upcoming problem session based on the lecture
content, and will often prepare Excel content, quizzes, or assignments to be completed. The lead TA should submit the proposed problem session agenda for the following week to Dr. Abolhasani no later than Thursday at 5pm. There is a Dropbox folder with slides from last year’s problem session which might be a good starting point.

- We will designate one of the harder homework problems to work in problem session. If there are questions (and there will be), try to give hints or set up the problem for the students to then solve themselves. If there is a “trick”, try to talk the students through it instead of working it out on the board (such that all the solutions look identical). Choosing problems that are similar but not identical to homework problems should grease the tracks for those who have homework questions. Students in the Wednesday session may have more homework questions than those in the Monday section (who haven’t yet looked at the homework).
- Problem session may occasionally have “special guests” attend and give a presentation (e.g. Co-op, etc). These will be scheduled in advance.
- During test weeks, problem session will be an “optional” review. (Since we are taking time from them for the exam, we have to give it back). We still expect high turnout that week, but we will not take attendance.
- The BTEC staff will lead a tour of BTEC on Sept. 7 (Wednesday section) and Nov. 21-22 (Monday and Tuesday sections). Since those are holiday weeks, the other sections will not meet. You will meet at BTEC in room 135 to take roll, take the tour, then hold office hours in the same room.

Office Hours – TA’s

- Each TA should designate 2 blocks of 60 minutes during the week as office hours, and commit yourself to be at a designated location during those hours to help students who need it. In the past, the CHE lounge has worked well for office hours. If you have to be away during your office hours, leave a note in a prominent place letting students know when (or if) you’ll be back. If you can’t be there at all on a given day, swap times with someone else. Wednesday and Thursday need extra coverage. Having at least some late afternoon or evening office hours (especially Wednesday and Thursday) would be helpful to students.
- Make an effort to learn students’ names, and ask their names when they come for help. Be friendly and approachable.
- Don’t give students the answers (and don’t let them look at the solution key – in fact, guard it like a hawk and avoid referring to it as much as you can). Your first question should be, “Show me what you’ve done so far.” If they don’t have anything to show, then you should direct them to at least sketch out the problem and solution strategy and then try to lead them to the right answer by asking questions to get them to discover it for themselves. Make use of a white board as much as possible to get them to solve the problem themselves! This is especially good for Thursday office hours to avoid answering the same question 25 times.
- Wednesday and Thursday office hours: you will get the heaviest load of questions since homework is due on Thursday and Friday morning.
- Try to draw boundaries around your office hour time. Students will pester you day and night if you let them. When office hours are over, make it clear that you have your own work to do.
• Do not let students hang out at other grad students’ desks in the area (if you are holding office hours in your own office – which we discourage). Don’t let them work at computers that have grading spreadsheets or solution key files on them. This has been a problem in the past.

**Homework Grading - Graders**

• Homework will be due on Thursday morning and Friday mornings for each section respectively as noted in the schedule. Hsiao, Abolhasani, and Beisel will put the papers in locker #21 on Thursday and Bullard will add papers on Friday morning. The graders for each week should also provide to the instructors and the TAs a brief summary of common mistakes by Monday morning so we know to go over them in class or problem session.

• The papers should be alphabetized (or put in group order) after grading and returned to the lockers #22 or #23 in time to get the papers recorded for return on Monday (Bullard) or Tuesday (Hsiao, Abolhasani, & Beisel). Quick turnaround is very important in this class so that students can get feedback on their work prior to the next homework set. We suggest that you grade papers on Friday afternoon so that the spreadsheet keeper will have time to enter them before Monday morning.

• We will give you solutions to the problems for the next week’s homework set on Tuesday. *Make sure the solutions don’t get into student hands:* we don’t want our solutions coming back at us next time we teach the course and assign the same problems. TA’s: Review the solutions to the problems in advance (and check them) and be prepared to respond to student questions during office hours without heavy reliance on the answer key. While students will likely not need to ask a lot of questions about the on-line problems, they are included in the solutions just in case.

• Each assignment should be graded on a 0-100 basis. The total point value for each problem will be posted with the homework set. You can either (1) take points off for what they did wrong, or (2) give them points for what they did right. Students seem to like (1) better since they can quickly see what they did wrong. It’s essential to develop a written grading rubric for each problem so that you grade consistently – with 200 or so papers or so (before they start working in groups), it’s easy to forget how much you took off on one paper 50 back…but you can bet the students will catch it if you are inconsistent.

• Decide among yourselves how much to count off for common mistakes, and how to divide up the grading (alternate assignments, each grader takes responsibility for certain parts of each assignment, or whatever). All we care about is that different graders don’t score (say) Problem 2, Part (a), for different students; if two students get different grades for doing the same thing there’s no end of difficulties. **Typically one person grades all of one problem to ensure consistency.** Keep a copy of the grading rubric for at least one week so that if re-grade requests come in, you can refer back to your solution key/rubric.

• For the first few weeks (through HW 6), students will be handing in individual assignments, so everyone may need to grade to turn the papers around quickly. When the students start working in groups of 4, it will cut the grading load by 75%. We STRONGLY suggest (if not require) that the papers be graded here at school and that grading be done together so that you can resolve questions quickly. Avoid having any TA’s take any papers home or to an
off-campus location. Hell hath no fury like an undergraduate whose homework has been lost or misplaced. Yes, it has happened.

- Give partial credit. Penalize careless errors enough so that it stings, but don't slaughter students who basically understand what they're doing. Try and figure out what the student did wrong and make (legible) comments on their paper to help them correct their own work. It does take time, but if you don’t annotate the homework with comments then someone will spend office hours answering the questions again. Avoid any sarcastic comments, and always try to reinforce the students for what they did well.

- We accept late homework until 8:30AM on Monday (put into locker #21 after marking the -20 “late” deduction). Homework that is submitted any time after the posted submission time gets docked 20 points off the top (grade the paper as usual, then deduct 20 points as a late penalty). We do not accept homework after 8:30am on Monday since the homework will have already been returned to the Monday section. One of the TA’s or graders will check the box at 8:35am on Monday and put late papers (with the deduction marked) in the locker #21. Bullard will take late papers received in her class on Monday and put in the locker #21.

- After the first few assignments, most of the required homework will be done by students working in teams. Each member of the team gets the same assignment grade. We don't particularly care about inter-team collaboration as long as the solutions aren’t identical. If you see “carbon copies” or anything that looks fishy, alert the instructors and we will take it from there. This is even easier to check when the students start handing in Excel files (“Properties” will reveal the author and time/date stamp, and we DO check). We will discuss cheating in the first week of problem session, so they have all been warned. If in doubt about a paper, ask one of the instructors. We will flag solutions that have an error in the solution key – in particular be on the lookout for these as evidence of students having the solution key.

- Corrections: if students think something was graded incorrectly, they are required to write down their question and re-submit it with the original homework. Typically we grade the “re-grades” on Friday with the next homework set. This is where the rubric comes in handy – if you took off that many points on everyone’s paper, then you can say so, case closed. If you did make a mistake, then correct it and notify the recorder via email – tell him or her what homework set, what problem number, what the points for the problem should be. If you realize that you made a mistake on everyone’s homework (and it does happen), we can decide whether to add points to everyone, or just to send out a note to notify folks that if they got points taken off, they should resubmit. If you’re not sure, consult with the instructors.

And now for the nitty gritty details that will make the Recorder’s life easier (this applies to both HW and exam grading):

- Keep the three class sections separate. They should be rubber banded by the instructors when they go in the locker.
- Grade papers using red ink so corrections are clear.
- The same person should grade a particular problem for all of the students.
• Draw a line down the blank part of the page following the homework problem to indicate that it was blank -- that way students aren’t tempted to write in more work after the problem is graded and claim the grader missed the additional work.

• Don’t grade anything written on the back of a sheet of paper.

• Where possible, try to figure out where the student went wrong and indicate it.

• Make sure you take off points for those little things we were told at the beginning of the semester to take off points for – like using the wrong kind of paper, not stapling, multiple people’s handwriting (see below). It seems nit picky, but if you take off initially, they will correct the problem.

-5 Non-engineering paper
-5 First and last name(s) missing of all contributing group members
-5 Assignment number missing
-5 Not stapled
-5 No cover sheet
-5 Written on grid side of paper (unless showing a graph)
-5 Not boxing final numerical answers (prose answers do not need to be circled)
-5 Not starting problems on a new piece of paper
-5 Excessively messy writing that is hard to decipher
-5 Problems out of order based on assignment
-5 Not in one person’s handwriting (group assignments)
-5 Group number missing for group assignments

• Write any off-the-top deductions (-5’s above) on the cover sheet with the other grades.

• Put the grade for each problem on the cover page.

• Add up the total score for the individual or team assignment.

• Clearly initial beside the scores for the problems you graded.

• Indicate on the outside of the paper if either the electronic copy or the hard copy of a computer assignment is missing.

• Always grade the homework in groups of at least two graders. If possible, work together on the grading rubric so that you are consistent about how you take off points in different problems.

• Make sure that the scores you write down are clear enough for the recorder to be able to read them.

• Fold each paper vertically.

• Alphabetize the individual assignments and put the group assignments in numerical order.

• Return the papers to the recorder, who will input the grades into the master spreadsheet, then return the papers to the locker. The goal is to have papers returned on Monday (8:30 class) and Tuesday (8:30 class) so that any questions can be answered in the problem session.

• If you ever have any questions about grading, cheating, or anything else, check with any of us.