On Grading:

A quick scan of the course pack will convince you pretty quickly that the examinations in Chemistry 215 are not designed to test your ability to recall the information and examples that you have seen in class or in the text. One of the most convincing ways we have to demonstrate the generalizability of the fundamental chemical concepts we claim are present is to create examinations that are "authentic" problems. That is, these are problems that will honestly test your ability to have gleaned both "the forest" and "the trees" when it comes to understanding how "the big picture" relates to "the pieces". In order to create these exams, we typically grab the latest issues of one of the common chemistry journals, like the Journal of Organic Chemistry or Tetrahedron Letters, places where there is a lot of organic chemistry published, in order to find new examples (examples that were unknown to us prior to having read them). We think our students can make sense of these if they are given an appropriate amount of information. Of course you will not have seen these examples before! That's the idea. As a result of this philosophy, every single point you earn is a real credit towards your understanding. We do not expect, nor should you, that there is some magical number of points that exists by which student work can be judged. Instead, after years of quite consistent testing practices, we have learned...from our students...how to assess and evaluate the work students present on these exams.

Here is what we know:

1. the normal, aimed-for mean is about 63-5% (a number that arises from history more than design)
2. the exams are 100% projective and from the literature, so 65% has real substance
3. this assessment means absolutely nothing in an absolute sense (what does 63-5% mean...it depends on the exam!)
4. we evaluate your actual writing about chemistry based on history and experience (we are chemists...we look at the chemistry!)
5. the historical evaluation of the 63-5% score, on our exams, based on the understanding
of chemistry the answers represent...not just the damned number...has been around a B- (above average expectation, plenty of errors to be somewhat less enthusiastic than "very good")

6. we do **NOT** use normative grading (i.e., a pre-set “curve” where x% will get "A", y% will get "B")...that is really dopey and does not encourage anybody...if everyone performed above a certain level then everyone gets a good grade (there have been terms with 70% of the class getting some sort of "A" or "B"). On the other hand, if the scores are low, we are inclined to simply obey our own contract and provide lower grades (we look carefully at the exams, not the numbers)

7. we do use an absolute scale, historically determined, because we give it with consistency (these are rough estimates of ranges, only; the ultimate determination of grades is based on the chemistry we read on the exams

8. roughly: 80-100% = the "A/A-/B+-"-range

9. roughly: 60-80% = the "B+/B/B-/C+" range

10. roughly: 45-60% = the "C+/C/C-" range

*Let's repeat the part students never believe:* if we kept our standards and for some reason everyone scored above 80% they would all get an "A/A-/B+-"; most terms, the A+ to B- count has been 60-65% of the class; there have been terms when the overall average was lower (ca. 56%) and we gave more C’s than usual

*The numerical scores guide the assignment of grades, but there are comparisons that define “improvement” and “decline” that can also be taken into account:* the total number of course points are gained through 3 hourly exams and a cumulative final that covers the course, again, evenly. The pattern for how one gains their points can influence the exact grade that is assigned at the borderlines.

*Improvement can count:* we have a number of ways in which we account for improvement...but it needs to be constant and permanent (not just "I got a good grade on my second exam...doesn't that count?"); we treat the set of three exams and the final as two separate measures of your cumulative performance, so one of the easy ways to
demonstrate improvement is to compare your final exam performance to your average during the term; do not try to negotiate the improvement issue, it is faculty decision not a student decision - just do your best every time

*Can a person with a slightly lower number of course points be assigned a higher grade than someone else if there is a compelling reason in the scoring pattern?* Yes, it can happen; and yes, it is rare; and no, it is not unfair. Assigning grades is a faculty member’s professional prerogative, not a service contract.