Here are my answers to a couple more design questions others might have…

How much of the research supporting the specification metrics has to be included? Can the reference just be provided?

Your *metrics* (like device weight, wireless range) should generally be based on something other than your opinion, but a few exceptions to this would be okay. User input and competitive product comparisons would probably be the basis for most of them. You can, and probably should, include some limited discussion of how you arrived and particularly important ones, but you don't have to go into excessive detail and for some you could just say something like "see user survey results."

The same goes for ideal and marginally acceptable (maximum and/or minimum) *values* that you specify for each metric. I do not expect you to have values for every metric at this stage, but you should have values for most of them. You must have target values for every metric before next year's fall design reviews and should be ready to orally defend everyone at the design review.

Should the format for the specifications follow the format that was in the QFD handout you gave us last Friday or can others be adapted?

By this I assume you mean Table 3.3 and its supporting text. While all the parameters in this table are important and should be considered early in your design process, it is not what I mean when I ask for specifications. You should use Table 3.3 to supplement the junior report outline I distributed last week. The table contains a number of specific issues that should be addressed in your junior report.

You should present your specifications in tabular form. Your specifications table should contain a numbered list of metrics with their target values, acceptable range, units and rationale (basis). Here's an example for a hypothetical device:

No.	Metric	Target	Range	Units	Rationale
1	Hand piece weight	1.0	< 2.0	kg	Cust. Surv.
2	Wireless range	10	> 5.0	m	Comp. Prod.
3	Battery life	24	> 12	hr	Standard

Second Message

I've decided to talk about specifications today in BE-300. Only one member per team need attend. I'll provide another handout.

It is come to my attention that some teams may be in a situation in which some members want to do *A* while others want to do *B* (where *A* and *B* are options regarding your project). Keep in mind that teams generally should make decisions by consensus, that is, everyone should be in agreement. I realize that this is not always possible. If after a couple of tries you can't reach agreement, please come to me. I'll listen to both sides and choose for you based on my experience. This will prevent paralysis.

My discussions with a number of students this week has also reminded me of the need for frank, honest and respectful communications. If you are having problems with the performance of other members of your team, don't be afraid to talk to them about it. On the other hand, don't be accusatory or confrontational. Tell them what you don't like, but listen to what they have to say about it. In general, there's a 50/50 chance that you're the problem not them.

I'm also concerned that some teams still don't have their project scope correct. Remember that your goal by graduation is to produce a working prototype of your device. This prototype should involve substantial application of the material covered in your courses. You can error by trying to do too much and not getting anything done. You can error by trying to do too little and completing the work only to get a mediocre grade because what you did was too simplistic. You can error by planning and surveying too much and not leaving enough time to create the prototype. You can error by not planning or surveying enough such that go down the wrong path and create a device nobody wants. You get the idea. It's a Goldilocks situation. Keep me informed of your progress and activities and I'll let you know if I think you're on the right track.

On last point, when there is conflict within a group I will be using your logbooks and other documentation determine what's actually going on. It's vital for your grade that you log and document your work.