GAME Qualifier Examinations Meeting with Faculty (April 2004)

Content of Exams

A student asked a question to have an outline of the topics in the exams made available to students so they know what to work on. Professor Sonin replied saying that the contents of 2.25 are sufficient for students and Professor Hadjiconstantinou said that 2.032 has been revised so that now it is a good outline of the dynamics exam. Also the format of the exam, (open book, closed) book was questioned and it was said that it doesn't matter which it is as long as you know the fundamentals.

Professor Hogan said that the said that the controls is based on the undergrad curriculum. It was said in Solid Mechanics that 2.071 is the one that really matters. Professor Frey said that for design 2.744 and 2.739J are important as well as 2.75. Professor Chen said that knowing the undergrad curriculum is important but that the graduate classes may also be of benefit.

Professor Hogan mentioned that sometimes by taking graduate classes students tend to overcomplicate the problem and their answer is much more complicated than it needs to be.

Professor Kam said that there is a sample critique of a research paper in the graduate office as a good reference for the bioengineering qualifier examination.

Transparency of Evaluation

Professor Sonin asked the question about what students mean by transparency. Professor Hogan said that one reason for not ranking students is that he would not like to see first and second-class PhD students in the department.

Professor Sonin mentioned that if you fail you could find your grades, you only have to ask.

A student asked for guidelines of what is expected of you. Someone else asked if they could have some written feedback of how they did in the exams. Professor Sonin said that faculty just don't have a lot of time for that and it is hard to remember exactly who did what. But when pressed he mentioned that they could spend about '30 seconds' to write down a few brief comments to provide feedback to the students that they could perhaps receive via MIT mail.

Professor Smith said that the scores in the exams are only one piece of the evaluation. He mentioned that the faculties' view of the student is very important in the discussion of the student at the results meeting. Also the opinion of the faculty who work with the student is very important.

What's Important

Professor Hogan said that the thesis component is probably the most important part of the examinations. You should be able to show that

1) you understand what you have done
2) you know why you have done it
3) you know what is the next step

Professor Smith said that the worst answer to why you did something is to say that you did it because your professor told you to.

Professor Kam explained how the thesis part was scored
Faculty all grade the talk (maybe 5 faculty) and they are generally all pretty close in grading when just watching the student present.

Professor Parks said that you are an actor, it is a story, and you should tell a good story and be a strong believer in what you are telling them.

Professor Hogan said to make sure you let the committee know exactly what YOU did and make that clear in your presentation. He also mentioned that presenting some negative results could be fine.

What if your advisor is not in the department?

Professor Sonin mentioned that if the topic is different than any of the core mechanical areas then a specialized examination committee could be put together. Process at the moment is that Leslie sends the student to Professor Sonin. Professor Hogan mentioned that this process should be made more apparent to students.

How much background should you expect the faculty to know?

You should assume that the faculty who are going to be listening in should know the area. It is more a task of convincing the faculty present that you know your research.

Professor Smith said that sometimes people put too much detail into their talk to hide what they don't know. It is better to give a broader overview and present a more conceptual view of your work.

A student asked if is it better to present your Masters Work or Future Work if it is different.

Response from faculty was as follows
A) It is best to give a clear presentation
B) He mentioned that talking about old work could sometimes be better because you know it well as opposed to work you are just starting
C) However he also said that new work could be more exciting (but have less depth) and in summary he said that it is a judgment call that the student has to make.
D) In talking about your work say where you are coming from and where's its going and that you are on your way towards a goal

Professor Kam mentioned that if you have started on a new topic then you should not try to combine them both (old and new) into a 40-minute presentation. It can be confusing.

A student asked if the faculty considered having the May exams a bit later
Professor Sonin said the faculty didn't want to do that