Examination Feedback for EEE6009(Module Code) – *(Title)
Spring Semester 2007-08

Feedback for EEE6009 Session:2007-2008

Feedback: Please write simple statements about how well students addressed the exam paper in general and each individual question in particular including common problems/mistakes and areas of concern in the boxes provided below. Increase row height if necessary.

General Comments:

Question 1:

Most students carried out the calculations well, however, when it came to the analysis and evaluation the majority of students were very poor.

Question 2:

The assignment on electron microscopy was organised such that the students had to apply previous knowledge on various electron microscopy techniques to the given problem of identifying two materials on the basis of transmission electron microscopy data provided.

The poor performance is extremely disappointing and has several reasons:

1. ½ of all assignments submitted used no literature for consultation at all. Most of the literature references actually used (24/44) referred to internet resources. Only 9 students out of 32 consulted standard textbooks. This may reflect a rather immature approach to literature searches.
2. About ½ of all assignments showed severe language deficiencies. While it is clear that students might not know many technical terms they were often unable to simply write down their observations.
3. Most of the students could only interpret the bright-field image and the X-ray spectrum but failed with the more demanding data interpretation. In particular the notion of what a diffraction pattern means and how this relates to lattice imaging has remained a mystery to many of them. While the next lecture series will address this point in more detail than before, the lack of scientific attitude causes some general concern: rather than trying to first measure and then interpret data (or admit that some data may be ambiguous) many students tried to find similar looking data sets somewhere on the internet and then ignored rather obvious inconsistencies. This is not appropriate at the MSc level.

Question 3:

The assignment tested the ability to record, analyse and discuss data recorded during the practical session, with the aid of the required theory described in the lectures. Students were asked to prepare a report to a suggested format and were assessed on (1) their practical ability and experimental data (40%), (2) presentation and understanding of results (40%), and (3) discussion of context of findings, ie: compare with examples in textbooks or commercially available on the internet (20%).

Theory was generally applied successfully to extract the electrical resistance, internal loss, efficiency and transparency current density.

However:
A large number of students failed to discuss the optical spectrum recorded with the OSA, or demonstrate an awareness of its function.
Many scripts were difficult to follow and contained poor quality graphs, with little appreciation of experimental uncertainties.
The majority of students completely neglected to address part 3 of the report

Question 4:

Question 5:

Question 6:

Question 7:

Question 8: