Instead of a final, I am going to have you do term papers in groups of approximately three. These can be your lab groups, or other groups. The idea is that you make an analysis of something at a higher level than we can go in the class, pushing further the research uses of TEM.

Grading of the projects will be based upon a combination of the degree of difficulty as well as how well presented and analyzed the material. Note the emphasis on degree of difficulty; if you choose a very easy project do not expect high marks. It is predictable that at least one group find what they propose harder than expected – not due to a lack of trying but because it is. Provided that a good presentation and analysis is given this will not mean a low mark for the project, it could mean a very high mark.

A one page description of your proposed project is due February 18th electronically. This need not be detailed but should contain:

 a) The group members

 b) A one paragraph description of what you propose to do

 c) A brief risk assessment of what could go wrong and how you will proceed

Contents of Report: 15 Pages maximum including (readable) figures, due Friday 17th March

Note: often brevity wins -- it makes it easier for me; waffle without purpose will lose you marks.

Example Projects:

1. A Wikepedia page on some aspect of TEM that does not already exist. The page will be published.
2. How TEM has been used to look at plasmonic nanoparticle synthesis
3. 4D Electron Microscopy
4. Inversion methods in electron microscopy
5. What we know, and don’t know about 3D objects from TEM
6. Something not on this list