

Part 1A - Exposition Course

The course aims to help you develop communication skills, both by written and oral presentations. There are three exercises which we will be doing through this term.

A. The Journal Club

You will prepare an oral presentation to the rest of the group on an article published in a current periodical in the library.

B. The Written Exercise

You will have to write a formal report on the Statics Experiment.

C. The Open Discussion

You will be asked to make a presentation on a topic set by me later in the term.

I will give you further information on each of the topics during the course of the term.

Timetable

Week 1. October 8	Introduction. Oral presentation techniques.
Week 2. October 15	Oral presentation (Exercise A) by some of the group.
Week 3. October 22	Oral presentation (Exercise A) by the remainder of the group.
Week 4. October 29	Discuss report writing (Exercise B).
Week 5. November 5	No meeting (prepare draft report).
Week 6. November 12	Discuss draft of reports (peer reading). Complete drafts must be brought to this meeting. Introduce Exercise C.
Week 7. November 19	No meeting (prepare exercise C). Deadline for handing in final reports.
Week 8. November 26	Open discussion (Exercise C). Hand back reports.

All meetings are in the Rushmore Room, St Catharine's, on Fridays from 9 to 11 am

Dr Michael Sutcliffe
October 2004

Part IA - Exposition Course

Exercise C. The Open Discussion

The group is going to take a vote, after suitable discussion, on the quality of some carefully selected structures, with votes in the following three categories

- 1) Best engineered
- 2) Most useful
- 3) Most attractive

Each person should aim to talk for five minutes; you may use overheads to help put over your main points. I also have pictures of the structures which will be handed around before each of your talks. There will be an opportunity to ask questions.

You must explain where the structure is located and, at least in outline, how it "works" with some back-of-the-envelope calculations. The rest of the content is entirely up to you. For the best-engineered category, you may want to think up appropriate criteria (c.f. the Statics experiment) to judge the structures by.

Each person will have one vote - in the event of a tie I will have a casting vote!

The discussion will take place on Friday 26th November.

NB Reports (**plus feedback appendix**) must be handed in to me by 1 pm, Friday 19th November. Either hand them in to my office (Room 311, on the third floor in the Baker building above the main reception - stuff them under the door if you can when the door is locked) or at reception itself for posting to me. Any queries call me on (3)32996 or 511708 or email mpfs@eng.

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October 2004

Powerpoint Presentations

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Structure

- Follow guidelines for presentations
- Plan the structure before starting
- Choose the content carefully

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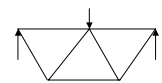
Slide layout

- Plan carefully - aim for high visual impact
- Do not overload slides
- Choose large fonts
- Simple equations (Insert object) $E = mc^2$
- Cover-up using custom animation
- No noises or funny effects!

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Graphics



Schematic of bridge

- Greatly adds to visual appeal
- Add/Modify text to suit presentation
- Use scanned or line drawings
- Use View/Toolbars/Picture and Drawing
- Use Right click - Format Picture to resize etc.

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Report writing advice

Why?

- Pay attention to the background of the reader.
- Decide what you want to tell them.

Structure

- Think carefully about structure.
- Use numbered sections and bold fonts to clarify structure.
- Decide on an appropriate amount of information to present.
- Use appendices where stuff is boring but necessary.

Layout

- Take extra care over the layout so that it looks professional.
- Use justified or centred paragraphs where appropriate
- Think about spacing between sections, between paragraphs, around figures and tables.
- Include page numbers.

Calculations

- These should be explained in the text, but a blow-by-blow account with every calculation detailed is not needed.
- Use symbols, which should be carefully defined.
- Introducing numbers only at the end, or in a table.
- Check and include units in equations and tables.

Graphs, figures and tables

- Ensure that the information 'leaps out of the page'. Think carefully how best to achieve this and maximize the impact of graphs, figures and tables.
- Sketch graphs/figures/tables before constructing them.
- Avoid confusing keys - label lines using arrows.
- Use sensible axis scales and numbering
- Include axis labels and units.
- Use large enough font sizes.
- Avoid dark backgrounds on figures.
- Photos can be useful, but simple schematic sketches are often clearer.

Style

- Lots of redrafting/craftsmanship is needed to make a sentence clear.
- Take advantage of the word processor!
- Avoid a 'diary' style - "this is what we did next". Re-order the material as necessary.
- Avoid use of "I" and "we". Use passive voice - "This was done".
- Use consistent tense (past tense for experiments).

Accuracy

- **Check everything carefully. Small mistakes add up to a poor impression.**
- Make sure everything is correctly spelt and grammatical.

Suggested headings and sections

Title page, Summary, Contents, Introduction, Apparatus and Experimental method, Theory, Results, Discussion, Conclusions, Acknowledgements, References and Bibliography, Appendices

Michael Sutcliffe

Presentation advice

Structure:

Think about structure. Even a short talk should have an introduction, a middle and a conclusion.

1. Introduce yourself
2. List contents of talk
3. Introduce topic
4. Main body of talk in sections
5. Summary/conclusions

Pay attention to:

Background of audience

Logic and clarity of presentation

What article you choose to present

Amount of information to present

Use of graphs, tables, charts, photos, visual aids

Do's and Don'ts:

- Highlight important points using a marker pen
- Consider whether to use a pointer
- Do not put loads of text on a slide
- Be aware that people try to read the text presented. Use a cover to reveal text as you talk
- Don't make the talk too complicated, the idea is to get information across
- Don't put up lots of complex equations - there is no chance of your audience following them

Other advice

- Everyone gets nervous to some extent when giving talks. Many people use cue-cards or key words on an overhead as prompts to remind them what to say next and so avoid "drying up". This keeps the talk lively - one that is read out from a script often sounds rather tedious.
- Avoid over-apologising for your work. A talk that starts off saying "unfortunately nothing worked" sounds unpromising. Better to say "despite some challenging set-backs we identified a number of exciting areas for future work".
- A picture can be worth a thousand words, but don't spend a lot of time preparing complex visual aids.
- Overheads should be bold and simple – a cluttered overhead is very off-putting and difficult to follow.
- Make sure that any graphs are clearly labelled.
- Make sure you write in big letters on the overheads
- Finally try to enjoy your talk and to keep smiling.

Michael Sutcliffe