COMSM0142 Presentation Assessment and Mark Scheme

Summary

The marking will be based on achievement in three main areas, which we expand on below:

- Communication of interest:
- Presentation of technical material relevant to your project; and
- Overall presentation design and technique

Different areas will be more important to different presentations, so we don't give individual marks for all three areas – in particular, given the wide variety of projects, some presentations will be far more technical than others. Our one requirement is that every presentation should have at least some technical material – **presentations lacking any technical material will be capped at 50 marks**. We believe almost all projects will be able to do this fairly easily, and if you're having a hard time finding something to talk about for either one then you should talk to the presentation lead for suggestions ASAP. (In 2023-24 this is John Lapinskas, and in general they will be listed on the unit page.)

The marking is **not** based on your achievement in the project itself – this will be assessed separately, in the dissertation and viva. There is no requirement or expectation that your presentation will match the main dissertation submitted in May. If your supervisor is on the marking panel, then they will recuse themselves from discussions about your project. (Your second marker will typically not be known when the presentations happen.)

The overall marks have the following rough meanings:

- An 80 or more represents an **outstanding** presentation.
  - "I'm surprised this person is still in university."
- A 70-79 represents an **excellent** presentation.
  - "I would want to hire this person at FAANG, or supervise them as a PhD student (if they were in my field)."
- A 60-69 represents a **good** presentation.
  - "I would want to hire this person at a typical software company."
- A 50-59 represents a **satisfactory** presentation.
  - "I would be willing to hire this person at a typical software company, but not too excited about it."
- A 49 or less represents a presentation with **serious deficiencies**.
  - "If the dissertation is at the same level as the presentation, then this person shouldn't pass the unit."

Form of Assessment

You will give a 15-minute slide presentation based on your project to an audience of a marking panel and other COMSM0142 students. This presentation should be aimed at an audience of new Year 3 maths and computer science students, and should assume only knowledge that the average such student would have. Your goal is to communicate:

- What your project is and (very briefly) your progress so far[1].
- Why you and your supervisor are interested in it, and why your audience should be as well.
- How you're doing it. You won't have time to explain this in its entirety (and likely wouldn't even with a two-hour talk), but you should aim to explain at least one piece of technical material that will be new to the audience.

A maximum of 50 marks are available for any presentation which fails to present one or more of these points. At least roughly 5 minutes of the talk should be dedicated to technical material.

You will be given indications from the panel when you have five minutes and one minute remaining. When you have no time left, you will be given thirty more seconds to finish your current point and then asked to stop.

After your presentation, there will be a brief period for one or two questions from the panel (not other students). Unlike a viva, these questions will not delve deeply into the technical aspects of your project. Some example questions might be:

- For a project based on using computer vision to track individual cows on a farm: "Would similar techniques be likely to work for horses, or do you rely on the specific patterning of cows?"
- For a project based on functional computing which makes heavy use of monads: "Sorry, my Year 1 functional programming is very rusty – could you remind me what a monad is?"
- For a project based on creating a video game: "What sort of other games did you take inspiration from?"

Membership of the marking panel will vary from year to year, but will always include the presentation lead and the project unit director.

There are no restrictions on which software you use to create your slides. We recommend either Powerpoint or Google Slides. Beamer (a LaTeX package) is another common approach, but be aware that it requires a significant time investment to learn and the results are typically no better than other software. (Even if your presentation involves a lot of mathematical formulae, the time spent learning Beamer is unlikely to be worth it – Powerpoint lets you write LaTeX equations by going to Insert -> Equation -> Professional, and Google Slides has the Auto-LaTeX Equations extension which does what it sounds like.)

What counts as "technical material"?

As described above, your presentation should include some technical material that's new to the target audience. Some examples of technical material include:

- Mathematical definitions, theorems and proofs.

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[1] You're not being marked on your progress so far, and you shouldn't spend long on this – the point is just to give the marking panel a little background so they don't ask about a part of the project you haven't started yet!

- Specific libraries and technologies used in developing a software project.
- Principles of experiment design and statistical analysis.
- Concepts from architecture and software engineering not covered in years 1 and 2.

In general, a good rule of thumb is: if you learned about it since the start of Year 3, and it would be substantially easier to explain the topic to a new Year 3 student than to a random person on the street, then it counts as technical material. For example, if your project involves creating a computer game, then you wouldn't want to talk about e.g. the concept of hierarchical object-oriented design since this is already covered in Year 1. You might instead choose to talk about something like:

- Shaders, which are fundamental to game programming, but are only covered in the year 3 computer graphics unit; or
- Principles of user experience design which are fundamental to game programming, but are only covered in the year 3 HCI unit; or
- Entity-component systems, which are likewise fundamental to game programming and are not covered anywhere in the degree programme; or
- Your own object hierarchy, which is not covered in Year 1 (since it's original to you).

Note in particular that "technical material" does **not** need to involve programming or mathematics, and does **not** need to be outside the scope of the entire degree programme – only past years 1 and 2. If you're unsure as to whether part of your presentation counts as technical, ask the presentation lead.

Alternative forms of assessment

All students will have the option to instead give their presentation to a smaller audience, or to pre-record it in advance and respond to questions in writing. This option is intended primarily for students with Student Support Plans (SSPs) relating to e.g. social anxiety, but is open to all students – you do not need to have a formal SSP in place. That said, we strongly encourage you to only take this option if you need it – presentation skills and public speaking skills are very useful to have, and this is a chance to practice them in a low-stakes environment.

Students taking the pre-recorded presentation option will **<u>not</u>** be expected to produce a polished video (which takes substantial extra time and effort) – they will be marked according to the same standards as students giving their presentation in front of a live audience.

If you have an SSP which is not covered by these alternative forms of assessment, or if you think you might be entitled to one, then please contact the presentation lead ASAP. We are willing to be flexible on this, but we need notice.

Communication of interest

In assessing this area, the marking panel will consider the speaker's ability to effectively communicate what their project is and why people should be interested in it. Some particular considerations will be the speaker's ability to:

- curate and present a relevant selection of background information;
- explain their project in a way that would interest a typical new Year 3 student, not just one already interested in the area; and
- hold the audience's attention.

Note that holding the audience's attention can be done in a variety of ways ranging from slide design to strong speaking skills to simple visible enthusiasm for the topic, and the best way to do so will vary based on not just the topic and the audience but also the speaker themselves. What works for one person will not work for another. You should not think of this bullet point as a mark for e.g. "being a natural public speaker" or "having pretty slides", because it isn't – those are only two possible approaches of many.

In some presentations, this area may overlap heavily with the presentation of technical material. For example, in a presentation for a heavily mathematical project, the reason to care about a research area may not be in its practical applications but that it's interesting or surprising in its own right, and it would be very difficult to communicate that without explaining the result and its wider context at the same time. In other presentations, this area may involve a substantial amount of non-technical material. For example, in a project based around creating a computer game, this area would likely include an explanation of the basic gameplay. In general, there is no advantage or disadvantage to covering more technical material – the speaker is expected to make this decision based on what will work well for their own choice of topic and their own speaking style.

Presentation of technical material

In assessing this area, the marking panel will consider the speaker's ability to communicate technical material clearly and effectively. Some particular considerations will be the speaker's ability to:

- simplify technical material to a level appropriate to the target audience;
- use creative and effective diagrams where appropriate;
- minimise cognitive load while still communicating the necessary information; and
- leave the audience feeling they have learned something new.

Note that diagrams in particular will be assessed based on their effectiveness and clarity, not on the speaker's Photoshop skills – there will be no penalty for use of e.g. neat hand-drawn diagrams as long as they are clear and legible.

A maximum of 50 marks are available for any presentation lacking a technical component. At least roughly 5 minutes of the talk should be dedicated to technical material.

Overall presentation design and technique

In assessing this area, the marking panel will consider the speaker's overall ability to create and deliver an effective talk in general. Some particular considerations will be the speaker's ability to:

- create slides that are clear, legible, polished, and accessible;
- divide their time well between subject areas; and
- cleanly fit their talk into the 15 minutes available.