

Final assignment

The course is 5 cr, which means that there needs to be some extra exercise besides attending the one week workshop. There's considerable flexibility – you can propose your own task or pick from the options below.

Deadline: Feb 1st. Return your work using MyCourses.

Option 1: Extra Excel exercises

Complete at least three of the four extra spreadsheet exercises given at the end of the game economics and balancing lecture slides (Day 2).

Note: this is probably the easiest way to pass the course, but it's really hard to get a 5 with this option. The default grade is 3, which is adjusted upwards if you manage to make a clearly structured and commented (or otherwise particularly clever) spreadsheet that allows me to tweak the values and explore the design. I will subtract one grade point for every spreadsheet that does not meet the specifications.

Option 2: Data-driven analysis of an existing game

An example of this option is provided in the Spreadsheet exercises and examples.zip, originally done by Francesco Fontana for the Spring 2018 run of the course. I gave Francesco a 5 because of the amount of effort put in, and he says he wouldn't have landed the game designer job at Wargaming without it.

Reverse-engineer an existing game or part of it. You should find a way to gather data about the game so that you can use spreadsheets and graphs to produce concrete results that are not just your thoughts and opinions.

For example, you could scrape Clash Royale card stats from the Clash Royale wiki and try to plot them on a cost/benefit graph. To do this, you have to figure out what is the elixir price of DPS, attack range, the ability to attack to air etc. Next, you could try to model and visualize the intransitive relationships (construct a matrix/grid of which card wins which)

This paper gives an example of engineering the difficulty progression:

https://cora.ucc.ie/bitstream/handle/10468/3461/Learning_Curves_AV.pdf. The authors basically logged the number of steps needed to solve each puzzle in four successful puzzle games, which allows plotting a rough estimate of how puzzle complexity evolves as the games progress.

Yet another option could be to analyze discussions of a game in Reddit or the game's own forums. Here, a simple approach could be to do *qualitative thematic analysis*. See, for example,

<https://www.psych.auckland.ac.nz/en/about/our-research/research-groups/thematic-analysis/about-thematic-analysis.html>

Grading criteria: analysis complexity and validity. Note that since it's possible that I don't know the game, please add links to short but representative gameplay videos.

Option 3: Spreadsheets in designing your game

Use spreadsheets as part of your own game design, e.g., a Game Project course game. Augment the spreadsheet with a short written report of what you learned.

Grading criteria: is it actually useful? Did you learn something? For best grade, you should actually make your game import the spreadsheet data (simplest way: .csv file).

Option 4: Game analysis essay

Write an essay of 2500-5000 words that analyzes a game, utilizing any of the concepts and tools introduced during the course. For example, you could analyze a game's design from the point of view of extrinsic and intrinsic motivation.

Essay instructions

If you decide to go for a writing assignment, please bear in mind the following:

The essay structure should be something like:

Abstract

- Summarize your approach and conclusions in less than 200 words. This part can repeat what you say in the introduction and conclusion

Introduction

- What game you are analyzing, if any
- What questions are you trying to answer or what point of view or approach are you using? (e.g., "The goal of this essay is to identify and analyze behavioral game design patterns in the game X")
- Why do the questions matter or why did you choose this game? What makes it interesting from this point of view? (e.g., the game might be one of the top grossing free-to-play games, or a sequel that really sucked or was considerably better than the original game and you want to understand why)

Content chapters

Conclusion

- Highlight the key takeaways and lessons learned

References

- You can cite my lecture materials, but for the best grade you should read and use the original articles (e.g., [Hunicke et al. 2004; Ryan et al. 2006]). The lecture slides should have the links to the papers – let me know if you cannot find something. Note that to download some papers for free, you might need to be in Aalto intranet.
- Use and format the references consistently. The easiest way to do this is to cite using [Author Year] in the text. To compile the reference list, use Google Scholar to find the paper, click on the "cite" link, and then copy&paste the citation info in APA format in alphabetical order (see below for example). You can of course also use Latex&Bibtex or a reference management system such as Zotero.

Hunicke, R., LeBlanc, M., & Zubek, R. (2004, July). MDA: A formal approach to game design and game research. In Proceedings of the AAAI Workshop on Challenges in Game AI (Vol. 4, No. 1).

Ryan, R. M., Rigby, C. S., & Przybylski, A. (2006). The motivational pull of video games: A self-determination theory approach. *Motivation and emotion*, 30(4), 344-360.

For more essay writing tips, this presentation has good points:

<https://www.slideshare.net/Ty171/essay-structurepptx>

Note especially the TEEL paragraph structure (slide 12). Many students make the mistake of writing paragraphs that omit the "L", i.e., the text does not flow logically from paragraph to paragraph.

I will grade the essays primarily based on the clarity of language and argumentation – make your points clearly and concisely using well-selected examples, and try to have the text flow logically from intro to conclusion. In practice, the default grade for everyone is 3, and I will then adjust it upwards for those essays that stand out, or downwards if you make clear mistakes or haven't put effort in polishing the text (i.e., there are many spelling or grammar errors).