

CMGT Personal Portfolio Learning outcomes template v1.4

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You need 2-4 learning outcomes for every personal portfolio. A learning outcome should represent 20-40 hours of work. Each Personal Portfolio module is 3 ECTS, every 1 ECTS is 28 hours. In total you need to spend approximately 84 hours on every Personal Portfolio module. That equals 1 day of work in every week of the term. Your portfolio item and critical reflection needs to represent this.

Please decide before starting if you want to connect your learning outcomes or work on unrelated outcomes. It's allowed to connect/align multiple learning outcomes across multiple Personal Portfolio modules, as long as it's clear what you learned and achieved for each separate one.

SMART

Learning outcome 1

"In the 3rd term as an engineer, I will learn how to develop a small VR game (with one goal and one main mechanic) in Unity using C#. This will increase my portfolio diversity and to show potential employers I am capable of learning new technologies, in this case VR, which will be an even bigger part of the gaming industry (but outside the gaming industry as well) in the future. I will know I have completed my learning goal when I have created a main menu, gameplay level and an endscreen. To learn how to create a small VR game, I will analyze existing VR games & watch and read tutorials on the topic. I will examine the Unity documentation as well. I estimate that learning and applying the knowledge on how to create a small VR game will take around 60 hours. I will keep track of my hours in an Excel sheet."

CMGT Competence(s):

1. Technical research and analysis
4. Investigating and analyzing

Learning outcome 2

"In the 3rd term as an engineer, I will learn how to measure and improve performance of this VR game, by using the profiler built into Unity and by running multiple tests, graphics-wise and possibly also code-wise. This will improve the quality of the VR game, as well as future (not necessarily VR) games I will make in the future, and will show potential employers I continuously work on improving performance, from start to end. I will know I have completed my learning goal when I have executed and documented multiple tests, and the performance of the game has been noticeably improved. To learn how to handle the optimization process, I will research official Unity documentation & watch and read tutorials on the topic. I estimate that learning and applying the knowledge on how to handle performance optimization will take around 25 hours. I will keep track of my hours in an Excel sheet."

CMGT Competence(s):

1. Technical research and analysis
2. Designing and prototyping
3. Testing and rolling out

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| <p>Describe how your learning activity corresponds with your learning outcome.</p> <p>Which assignment(s) and activities will you carry out to achieve your learning outcome?</p> | <p>Learning goal 1: I will work on a prototype for a small VR game. It will probably be an FPS game, since that's what I'm most familiar with and enjoy making & playing the most. I will continuously test it on my Oculus Quest.</p> <p>Learning goal 2: Twined together with the learning activity of learning goal 1, I will analyze and improve the performance of this VR game. First, I will research optimization techniques and how they are applied in Unity. Then during the process of making the game, I will run several tests to see how my changes affect the performance. I will document this data in an excel sheet.</p> |
| <p>Which product(s) (or outcome(s)) will you work on to demonstrate the extent to which you have achieved your learning outcome? Describe what the essential conditions, necessary characteristics, and requirements of each product (outcome) should be?</p> <p>What is the least you must do to demonstrate that you have achieved your learning outcomes?</p> | <p>Learning goal 1: The least I must have done is:</p> <ul style="list-style-type: none"> - A simple but functional main menu. - A gameplay level which contains an environment, where one goal can be completed using one main mechanic. - An end screen, which will be displayed after completing the goal. <p>Learning goal 2: The least I must have done is:</p> <ul style="list-style-type: none"> - Research and choose optimization techniques. - Run before and after tests using the chosen techniques, and fully document tests. - Process and document the results of the tests in a visual way. |
| <p>Describe your portfolio item(s):</p> | <p>A smoothly running small VR game, with one main goal and mechanic. Genre is going to be FPS/shooter.</p> |
| <p>Which sources (literature, tools, books, blogs, specialist journals, video tutorials, keynote speeches, interviews, etc.) will you consult and why? Which software/hardware will you use?</p> | <p>Learning goal 1 & 2: Unity documentation, official Unity tutorials, GDC talks, written/YouTube tutorials, forum posts</p> <p>Unity Excel Oculus Quest</p> |

Previous Learning Outcomes

Please paste the learning outcomes of modules here. Explain the relation with your current learning outcome and/or portfolio item, and or/ other CMGT modules.

Personal Portfolio (or other CMGT module): 1

Learning outcome 1:

"As an engineer looking for an internship and with limited knowledge of HTML, CSS, Javascript, I want to practice those elements to gain the capability of developing a properly running & looking portfolio website, and create some mini-prototypes to demonstrate gained skills, and gather this knowledge in a reflection. I intend to spend around 42 hours."

Learning outcome 2:

"As an engineer looking for an internship and with limited knowledge of what a website should contain, as well as knowledge on UI/UX design, I want to gather knowledge regarding those areas to gain the capability of designing (pleasing UI/UX) a relevant (important information should be present) portfolio website, and gather this knowledge in a reflection. I intend to spend around 42 hours."

Short description of portfolio item: prototype interactive website (basis for 2nd term), consisting of multiple code & UI/UX prototypes and research questions.

Relation to current learning outcome: n/a

Personal Portfolio (or other CMGT module): 2

Learning outcome 1:

"As an engineer looking for an internship and in need of a better portfolio website, I want to make use of & further improve/deepen my JavaScript programming capabilities (game mechanics, physics), by making a 2D platformer game, using Three.js, meant as an engagement tool for my portfolio website, so that I can eventually implement it into my portfolio website (separate from this course) and enter the industry with a proper-looking website and can convince potential employers to offer me an internship/job. I intend to spend around 42 hours on this learning goal."

Learning outcome 2:

"As an engineer with experience in only 1 industry-used engine, I want to familiarize myself with the Unreal Engine, preferably UE5. I will make a simple FPS minigame, with one main mechanic and goal, using C++. This will result in a new portfolio piece, which shows I have gained experience in Unreal Engine. I intend to spend around 42 hours on this learning goal."

Short description of portfolio item: small FPS game, created in the Unreal Engine with blueprints

Relation to current learning outcome: n/a