

SCSD Portfolio

You - either your name or your exam number

March 26, 2024

1 Introduction

If you are new to Overleaf, tutorials, user guides, and further documentation, are here: [help library](#), or the plans page to [choose your plan](#).

The introduction should provide a brief overview of the following four sections. In each of the sections you do not need to split into the five sub-criteria. They are provided as a guide to the points you should consider. Once you have written the section, go back to the sub-criteria and check that the section deals with all of them to some extent

2 Learning Outcome 1

Learning outcome 1 is: **Describe the structure of typical standards and regulation for a range of domains of application.**

The broken down assessment criteria are:

1. Range of domains considered
2. Diversity of the chosen domains
3. Clarity of identifying relevant standards
4. Quality of the analysis of standards to identify overlaps and conflicts
5. Quality of the analysis of standards to identify differences and gaps

This section should introduce the combination of domain and application you will use throughout to illustrate your work. This should contain some motivation for your choice of domain by considering alternatives and their related standards. Then identify the collection of standards you think are relevant for your choice of domain and application and point out potential gaps and overlaps. The aim of this section is to demonstrate that you have considered some alternatives before settling on your chosen domain and application and have reasons for your choice.

3 Learning Outcome 2

Learning outcome 2 is: **Explain and motivate the goals set by regulation and standards and how they influence the requirements for compliant systems.**

The broken down assessment criteria are, for a group of related standards:

1. Quality of the analysis of a group of standards for comprehensiveness
2. Quality of the analysis of a group of standards for interdependency
3. Quality of the overview of how do they constrain the systems
4. Quality of the explanation of the motivation for constraints on products
5. Quality of the explanation of the motivation for constraints on process

In this section you have settled on the choice of domain and application. You should state the standards you intend to consider (these could cover different aspects of product e.g. sustainability, useability, safety, Settle on a small number of standards you do not need to be comprehensive. You should choose so you can illustrate you can identify where there are gaps in your choice and how the standards constrain development process and product. Ideally you should be able to choose a 3 or 4 constraints, identify where they are in the standard and point out how they constrain process and/or product.

4 Learning Outcome 3

Learning outcome 1 is: **Given an example system and standard or regulation, justify what evidence would be needed to comply with the regulation or standard.**

The broken down assessment criteria are, for a group of related standards:

1. Quality of the analysis of what needs to be evidenced
2. Quality of the identification of the means of evidencing
3. Quality of the analysis of how much evidence is necessary
4. Quality of the analysis of how evidence can be shared across standards
5. Quality of the analysis of the effort needed to generate appropriate evidence

In this section you need to consider the documentation, data, results of development activities so you can convince a regulator or auditor that you are complying with the constraints you chose in the previous section (and possibly some additional constraints. This will involve identifying what you think you need to justify you have correctly followed the standards. In this you only need to consider the constraints you have identified in the previous section. You do not need to consider the whole collection of standards.

5 Learning Outcome 4

Learning outcome 4 is: **Given an example system development process and standard or regulation, evaluate how effective the process can be in generating evidence of compliance to the standard or regulation.**

The broken down assessment criteria are:

1. Coverage of key aspects identified in (3)
2. Where/How is evidence produced and managed in the process
3. Assessment of quality of products
4. How well is the process instrumented?
5. What is possible in terms of identifying improvement

In this section you should consider how and where you gather the information/evidence identified in the previous section and how you can assure its quality. Quite often this sort of information/evidence will be mentioned in the standard. You should consider what is needed and how you think it should be collected.

6 Conclusion

You can simply upload a `.bib` file containing your BibTeX entries, created with a tool such as JabRef. You can then cite entries from it, like this: [Gre93]. Just remember to specify a bibliography style, as well as the filename of the `.bib`. You can find a [video tutorial here](#) to learn more about BibTeX.

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References

- [Gre93] George D. Greenwade. The Comprehensive Tex Archive Network (CTAN). *TUGBoat*, 14(3):342–351, 1993.