

SCSE PRCE/PMCE Marking Scheme

Version 1, created 11/11/24 by Richard Hawkins.

Maximum length of PRCE report is 17 pages (A4, Minimum font size 12pt, minimum margin sizes: left, right and bottom 4 cm; top 2.5cm. The spaces between paragraphs must be 12pt).

Markers will stop marking once the page limit has been reached.

The following are not countered as part of the page limit: title page, tables of contents/figures/acronyms, acknowledgements, bibliography, appendices. Note that material included in an appendix is considered for reference only and may not be read by the assessor.

There is no requirement that the headings in the assessment criteria below must be headings of chapters or sections in the report (but students may be advised that this would assist the markers).

Executive Summary (5%)

The executive summary should focus on the presentation of the critical evaluation to a knowledgeable peer of the student. This section is assessed on how successfully the student communicates the findings of the review. Markers are **not** judging the quality of the evaluation itself.

Fail (0-2)	<ul style="list-style-type: none">• Very unclear on the project aims and objectives.• Section is poorly organised.• Findings of the literature review are poorly presented or absent.
Minimum pass (3)	<ul style="list-style-type: none">• Aims and objectives of the project are not clear.• Section is logically organised.• Findings of the literature review are presented, but not always in a manner that enables the reader to judge the validity of the work.
Merit (4)	<ul style="list-style-type: none">• Aims and objectives of the project clearly presented.• Section is well organised.• Findings of the literature review are clearly presented for the target reader.
Distinction (5)	<ul style="list-style-type: none">• Aims and objectives of the project are very clearly presented.• Organisation of the section is exceptional.• Findings of the literature review are very clearly presented in a manner appropriate to the target reader.

Introductory Material/Motivation/Background (10%)

Students should describe the scope, motivation and objectives for the project. The Background should include enough context for the reader to understand these elements.

Fail (0-4)	<ul style="list-style-type: none"> • No clear motivation for the work. • Aim and objectives of the project are not articulated, or are inappropriate for this type of project. • No discussion of the scope of the project.
Minimum pass (5)	<ul style="list-style-type: none"> • Motivation is based on a weak evidence base and fails to show a real need, or motivated solely by personal anecdotes or references solely through traditional and alternative media. • Not clear what the aims and objectives of the project or very modest/too narrow for this type of project. • The scope of the project is not clearly defined.
Merit (6)	<ul style="list-style-type: none"> • Motivation is reasonably well justified however it is not clearly articulated. • Communicates the aims and objectives of the project but it is not completely clear what the project is meant to achieve. • The scope of the project is clearly articulated.
Distinction (7-10)	<ul style="list-style-type: none"> • Motivation is clearly stated and justified. • Clearly presented and well-defined aim, objectives and scope.

Additional Guidance:

For the motivation, one approach is to show a “need”

- The problem is important
- Any existing solutions aren’t sufficient

An alternate approach is to show an opportunity

- Something has worked well in one scope or context
- It is worth seeing if we can apply it in a new context

These are not the only ways of motivating work, but work MUST be internally motivated. “My supervisor set this as a project” may be true initially, but by the time the introduction is written there should be stronger reasons why the report is worth writing and reading.

Literature Review (65%)

The literature review will be assessed based on its level of coverage of the relevant literature and the quality of the analysis of that literature. Although each of these aspects is judged against the separate criteria laid out below, these should **not** be presented as separate sections of the report.

Coverage (25%)

Fail (0-12)	<ul style="list-style-type: none">• Failure to address one of either the problem domain or the solution technology.• Does not provide a clear overview of the subjects of interest.• Failure to draw on a range of sources.• Little or no justification is provided for the scope of the literature review (what is and isn't included and why).
Minimum pass (13-14)	<ul style="list-style-type: none">• Both the problem domain and the solution technology are covered to some extent. An overview of all subjects of interest is provided, but lacks depth.• There is some variety in the sources used.• Some justification is provided for the scope of the literature review but it remains unclear how decisions were made on what to include and exclude.
Merit (15-17)	<ul style="list-style-type: none">• Both the problem domain and the solution technology are covered well. An overview of all subjects of interest is provided.• Good variety of sources used.• Clear justification is provided for the scope of the literature review. It is clear how decisions were made on what to include and exclude.
Distinction (18-25)	<ul style="list-style-type: none">• Exceptional coverage of both the problem domain and the solution technology. An in-depth overview of all subjects of interest is provided.• Excellent variety in the sources used.• Excellent justification is provided for the scope of the literature review.

Additional Guidance:

Good coverage draws on a variety of types of knowledge (theory/discussion papers, experiments, method explanations, industry reports, epidemiological studies) and sources (conference papers, journal papers, white papers, accident reports, books, standards).

It will be unusual for a project to have less than forty references or more than one hundred.

The purpose of having a reasonable variety of sources is undermined if a small selection is drawn upon for most of the literature survey.

Analysis (40%)

This section will be marked based on how well each of these four elements are addressed by the literature review:

- **Synthesis** – bringing together ideas from different places to form a coherent picture
- **Comparison** – identification and discussion of differences between sources
- **Critique** – observation of strengths and weaknesses in the work of others
- **Reflection** – using own experiences as a lens to critique the work of others

Fail (0-19)	<ul style="list-style-type: none">● Most analysis elements are missing. Those that are present are only superficially addressed.
Minimum pass (20-23)	<ul style="list-style-type: none">● Only some analysis elements are present, and are only weakly addressed.
Merit (24-27)	<ul style="list-style-type: none">● Most analysis elements are addressed well in the review.
Distinction (28-40)	<ul style="list-style-type: none">● Exceptional analysis is provided in all areas.

Examples:

- **Synthesis:** Jones [x] indicates that dogs are black. This is because of the pigmentation in their hair, which has a black sheen [y]. In fact, as Smith notes [z], the pigmentation is actually dark blue but appears black.
- **Comparison:** Jones [x] indicates that dogs are black. Smith [y] takes a contrasting position, claiming that dogs are white. The following table summarises the attributes of dogs noted by Smith and Jones. It appears from this table that they are discussing completely different animals.
- **Critique:** Jones [x] indicates that dogs are black. The small sample size

(1 dog) of this study reduces the credibility of Jones' conclusions. It appears unreasonable to make a universal claim without stronger evidence.

- **Reflection/relation:** In my own experience, there is limited merit to what Jones and Smith have to say. I have personally observed dogs of many different colours, and it appears that academic trials have been unable to capture the real-world dog-observing experience.

Additional Guidance:

Literature review should assume a reader with basic knowledge in safety engineering

The Department standard is IEEE style referencing. Students are strongly encouraged to use reference management software and IEEE style. Consistent use of another standard bibliography style will not be penalised.

Problem Definition and Proposal (15%)

<p>Fail (0-7)</p>	<ul style="list-style-type: none"> ● Goals of the proposal not clear or justifiable. Goals are not linked to the findings of the literature review. It is unclear how a gap in the literature is addressed. ● Difference between a good and a poor solution not clear or justifiable. ● Proposed way forward is not credible.
<p>Minimum pass (8)</p>	<ul style="list-style-type: none"> ● Goals of the proposal are clear and justifiable. The goals relate to the findings of the literature review and address an identified gap, but this is not well explained. ● Difference between a good and a poor solution is clear and justifiable. ● Proposed way forward is credible.
<p>Merit (9-10)</p>	<ul style="list-style-type: none"> ● Goals of the proposal are clear and justifiable. The relationship of the goals to the findings of the literature review is clearly explained. It is clear how a gap in the literature is addressed. ● The difference between a good and a poor solution is clear and justifiable. ● Proposed way forward is credible. There is clarity on the chosen path and decisions to be made during the development process.
<p>Distinction (11-15)</p>	<ul style="list-style-type: none"> ● Goals of the proposal are extremely clear and justified. It is explained clearly how a gap in the

	<p>literature is addressed.</p> <ul style="list-style-type: none"> • The difference between a good and a poor solution is clear and justifiable. • Proposed way forward is credible. Clarity of the chosen path and decisions to be made during the development process is exceptional.
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Additional Guidance:

This proposal is not binding on the Final Project (PRCP) as re-evaluation of the proposal will be undertaken during PRCP.

Detailed design of the solution is not expected here. In particular, the final project (PRCP) will include a design element, which for a research project will include detailed research design, and for a survey project will include detailed survey design.

Written Communication and Referencing (5%)

Fail (0-4)	<ul style="list-style-type: none"> • Document's structure is very unclear and difficult to follow. • Spelling and grammar are very poor. • Diagrams and images are inappropriately used and often serve to confuse rather than communicate. Tables are nonsensical. • Citations are not consistently complete . Referencing is consistently wrong.
Minimum pass (5)	<ul style="list-style-type: none"> • Document's structure is often unclear and not logical. • Spelling and grammar errors are common making the document difficult to read. • Diagrams and images are inappropriately used, or often do not provide support to the reader for understanding the information being presented. Tables are often poorly structured. • Citations are often incomplete or inconsistent with one another. Referencing is often inconsistent or not done where appropriate.
Merit (6)	<ul style="list-style-type: none"> • Document's structure is good with mostly clear sections, but with some questionable organisational choices in some parts of the dissertation. • Good quality, clear and concise writing style that is mostly consistent. High quality spelling and grammar. • Diagrams and images mostly used appropriately, or

	<p>which have only small issues around presentation. Tables are structured well, if sometimes dense or difficult to understand.</p> <ul style="list-style-type: none"> • Mostly complete citations in a consistent style, with appropriate referencing within the document.
<p>Distinction (7-10)</p>	<ul style="list-style-type: none"> • Very well structured with clear logical sections that communicate the key parts of the dissertation. • High quality, clear and concise writing in a consistent style. Near perfect in spelling and grammar. • Diagrams and images used appropriately and are clear and appropriate for the information being presented. Tables well structured for purposes of communicating appropriate data. • Correct and complete citations in a consistent style, with appropriate referencing within the document.