ChE Work term report marking guidelines (Rev. W/13)

Section I: Written Mechanics & Report Presentation

The assessment of this section should consider the academic level of the student and level of report, i.e. 200, 300, 400 Level report. Specifically the level of “Written Mechanics” for a junior student is not expected to be at the same level as a senior student. The assessment should provide more feedback to level 200 and 300 reports so that students can improve on future reports.

Spelling  Is there evidence of proof-reading and use of spell checker? Is the report free of spelling errors?
Grammar Is the report free of grammatical or syntactical errors?
Structure/Format  Is there a logical distribution of material in appropriate sections? Is there logical flow between sections? Detailed data & calculations may be delegated to an Appendix, but important material (Figures, Tables, etc.) needed to support the conclusions must be presented in the body of the report.
Graphical Representation  Are figures captioned on bottom, and tables captioned on top? Does professional use of figures, tables and images complement the written/oral components? Do figures have appropriate size and consistent format? Are the figure axes labeled with units? Are figure and table captions descriptive?
References  Is there a suitable number of references? Generally a work report should contain at least 8-10 references if not more. Also, references should be from at least three different types of information sources (e.g. Web Site, Encyclopedia, Journal Article, Book or Text Book, Patent, Industrial Report, Government Report).

Must be cited in text for all statements of fact, sources of data, sources of graphs, pictures, tables.
Each reference in the Reference list must be cited in the report body.
Must use either the Harvard system (name, year), or the Vancouver system (citation sequence numbers, superscript or in parentheses). Citations must be in a consistent format. Must not use footnotes.
Overall & Clarity and Style  Does the report have suitable print quality, size of fonts, readable tables and figures? Are tables and figures consistently numbered with an adequate title or caption? Are equations numbered? Is the overall report presentation and language clear? Does the report capture and hold the reader’s attention/interest?

Section II: Content

The assessment of this section should consider the academic level of the student and level of report, i.e. 200, 300, 400 Level report. Specifically the level of “Analytical Content” and “Use of Engineering Tools” for a junior student is not expected to be the same as for a senior student. A junior student is also not likely to have been assigned tasks that required a high level of engineering sophistication. The assessment should provide more feedback to level 200 and 300 reports so that students can improve.

Summary  Stand-alone description of: purpose of report/project, major points of body, most significant conclusions and recommendations. Must not be an introduction to the contents of the report. A satisfactory “Summary” is required.
Introduction  Background and objectives of the report/project.
Methods/Procedures  Description of how the work was carried-out.
Discussion of Results  Is there a logical evaluation of data/information?
Consideration of Options  Does the report consider various options? Are there criteria and constraints used to analyse the options and select the best option?
Use of Engineering Tools  Does the report make use of engineering tools or design methodologies?
Conclusions  Do the conclusions follow logically from the results? Are they supported by data? Satisfactory “Conclusions” are required.
Recommendations  Do the recommendations follow from the conclusions? Satisfactory “Recommendations” are required.
Analytic Content  Is there comparison of alternatives or problem analysis at a level appropriate to the student’s term? Is the degree of challenge appropriate to student’s level? Does the report achieve the stated objectives? Originality may be considered. Must not read like a manual, or user’s guide. Lack of analytic content may result in “Unacceptable” overall rating.
Comprehensiveness  Scope and depth of analysis? Topic considered from a variety of perspectives? Satisfactory use of resources, literature? (take into account student’s level)
Section III: Outcomes Expected of Graduating Students

This Section III OUTCOME based rubric below (and attached guidance) should be used as the PRIMARY ASSESSMENT guide for the assigned mark for SERIES 400 Work Reports (i.e. the students 3rd and final Work Report). Section I and Section II should also be filled as they provide additional guidance for assessment of the CEAB “Communications” outcomes for 400 Series Reports.

HOWEVER this Section III OUTCOME based rubric should also be marked for SERIES 200 and SERIES 300 Work Report (i.e. the Student’s First and Second reports), to provide students with guidance on their progress towards achievement of the required graduation Communication Outcomes. Section I and Section II should be used for the assignment of the final mark for SERIES 200 and SERIES 300 work reports and this mark should reflect the academic level of the student. Naturally, relatively lower scores may be recorded in Section III for junior students, since this section assesses outcomes expected of graduating students.

<table>
<thead>
<tr>
<th>Element</th>
<th>Outstanding</th>
<th>Excellent</th>
<th>Good</th>
<th>Satisfactory (Minimum expected of a graduating student)</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphical Representations</td>
<td>Compelling and engaging; pictures worth “a thousand words”.</td>
<td>Graphics enhance communication; clearly present message and meaning.</td>
<td>Professional use of figures, tables and images that complement the written/oral components: properly labeled, plotted, sized.</td>
<td>Acceptable use of figures and images: some minor problems with layout, sizing, legibility, colour.</td>
<td>Distracting, confusing, or inappropriate graphics that detract from the written or oral content.</td>
</tr>
<tr>
<td>Organization &amp; Clarity</td>
<td>Leads audience towards scientific and technical insight.</td>
<td>Enhances delivery of technical content.</td>
<td>Professional layout and organization: appropriate division of sections, logical order helps audience understand problem and resolution in time/space limits.</td>
<td>Acceptable layout that uses basic outline or template for presenting information; may contain minor gaps in logical flow of information or adherence to time/space limits.</td>
<td>Information is disorganized making it difficult for audience to understand the content.</td>
</tr>
<tr>
<td>Content</td>
<td>Complete and inspiring technical story from start to finish.</td>
<td>Content presents an enhanced technical story that shows insight beyond the obvious.</td>
<td>Professional-level of content: appropriate for audience; complete, accurate and appropriate depth; conclusions/recommendations are defensible based on information presented.</td>
<td>Acceptable coverage of technical content: all expected sections are clearly, covered.</td>
<td>Expected content is sparse or missing; and/or proper citations of sources are missing.</td>
</tr>
</tbody>
</table>

Section IV: Overall Mark

The overall mark should be based on Sections I & II for 200 & 300 Level Reports, and only on Section III for 400 Level Reports (Sections I and II are filled for 400 Level Reports and they inform Section III). Section III Outcomes should be graded objectively for the level 200 and 300 Level Reports, but should not form the basis for the mark. This allow the student to show progress towards the Outcome from Level 200 to Level 400 reports. (Note: only grades of 95, 89, 75, 65 and 38 are permitted for work reports at UW)

Suggested Grading Key for Series 200 and 300 Report Marking

95%: All “Outstanding” or “Excellent” in Section I. Section II: ≥6 “Outstanding”, balance “Excellent”. To be considered for awards.
89%: All “Excellent” or better in Section I. Section II: At least 4 Excellent or better, and all “Good” or better.
75%: At least 5 “Good” in Section I. Section II: at least 6 “Good” or better.
65%: None of the above or below.
38% (Unsatisfactory): At discretion of evaluator, but reasons may include: no analytic content (written as a User Manual, Business Plan or other narrative); highly inappropriate subject matter; serious flaws that are unlikely to be easily corrected.

Series 400 Level Report Marking

Based on Section III Marking Rubric Only
95%: 3 or 4 “Outstanding” with at most one “Excellent” in Section III.
89%: All “Excellent” or better in Section III.
75%: All “Good” or better in Section III.
65%: All “Satisfactory” or better in Section III.
38% (Unsatisfactory): Any ONE “Unsatisfactory” in Section III.

Resubmit for Series 200, 300 or 400 Reports: 1 or more “Unsatisfactory” in Section I. Section II: “Unsatisfactory” Summary, Conclusions, Recommendations, or Analytical Content. Otherwise the “Resubmit” is at discretion of evaluator. Note a mark of 89%, 75% or 65% can all be assigned with a Resubmit where there is simply one key point to be repaired (eg. missing a key reference, or simple calculation error that can be corrected in an otherwise good report).