## Final Report Evaluation (13)

**Instructions:** Using the guidelines check the grade that corresponds to the proficiency with which the work in that stage of the design process was conducted.

### Project Name and Code

### Marker (print)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Fail</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
</tr>
</thead>
</table>
| Identification of Need (Requirement) AND Problem Definition | • Client needs not assessed.  
• Problem not defined. | • Client needs not thoroughly assessed\(^1\).  
• Problem not well defined\(^2\). | • Client needs thoroughly assessed\(^1\).  
• Problem well defined\(^2\). | • Client needs thoroughly assessed\(^1\).  
• Problem well defined\(^2\).  
• Unexpected insight into client need. |
| Gather Information | • No research.  
• Lack of critical interpretation of information gathered. | • Access and critically interpret resources that are readily available\(^3\). | • Access and critical interpret resources that are readily available\(^3\) and those that require initiative to identify\(^4\). | • Access and critical interpret resources that are readily available\(^3\) and those that require initiative to identify\(^4\).  
• Recognize and effectively exploit resources that do not initially appear to be relevant to the problem. |
| Generate Concepts | • No concept that is valid\(^5\). | • One concept that is valid\(^5\). | • Two or more distinct concepts that are valid\(^5\). | • Two or more distinct concepts that are valid\(^5\).  
• At least one valid\(^5\) concept is an unexpected departure from state-of-the-art |
<table>
<thead>
<tr>
<th>Stage</th>
<th>Fail</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decide</td>
<td>No decision made or decision is not justified.</td>
<td>Decision is justified but not in the context of the problem definition and/or information gathered.</td>
<td>Decision is objective and justified in the context of the problem definition and information gathered.</td>
<td>Decision is objective and justified in the context of the problem definition and information gathered. In addition the decision is informed by unexpected insight into the client need and resources that do not initially appear to be relevant to the problem.</td>
</tr>
<tr>
<td>Detailed Engineering</td>
<td>Detailed engineering is either not present or is fundamentally flawed.</td>
<td>Analysis is not <em>appropriate</em>(^6).</td>
<td>Analysis is <em>appropriate</em>(^6).</td>
<td>Analysis is <em>appropriate</em>(^6).</td>
</tr>
<tr>
<td></td>
<td>Analysis is not <em>verified</em>(^7).</td>
<td>Analysis is <em>verified</em>(^7).</td>
<td>Analysis is <em>verified</em>(^7).</td>
<td>Analysis is <em>verified</em>(^7).</td>
</tr>
<tr>
<td></td>
<td><em>Documentation</em>(^8) does not enable implementation.</td>
<td><em>Documentation</em>(^8) enables implementation.</td>
<td><em>Documentation</em>(^8) enables implementation.</td>
<td><em>Documentation</em>(^8) enables implementation.</td>
</tr>
<tr>
<td></td>
<td>Results of analysis are not applied to the design</td>
<td>Results of analysis are applied to the design</td>
<td>Results of analysis are applied to the design</td>
<td>Results of analysis are applied to the design</td>
</tr>
<tr>
<td>Implementation</td>
<td>No implementation</td>
<td>Implementation not complete(^9).</td>
<td>Implementation complete(^9) or, if incomplete, reasonable justification given</td>
<td>Implementation complete(^9)</td>
</tr>
<tr>
<td></td>
<td>Inconsistent with problem definition</td>
<td>Consistent with problem definition</td>
<td>Consistent with problem definition</td>
<td>Consistent with problem definition</td>
</tr>
<tr>
<td></td>
<td>Quality sufficient only for internal demonstrations</td>
<td>Quality sufficient only for internal demonstrations</td>
<td>Quality sufficient only for internal demonstrations</td>
<td>Quality sufficient only for internal demonstrations</td>
</tr>
<tr>
<td></td>
<td>No testing</td>
<td>No testing</td>
<td>No testing</td>
<td>No testing</td>
</tr>
<tr>
<td>Note to Marker: Mark only if prototype (physical or software) created</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>F</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>Stage</td>
<td>Fail</td>
<td>Below Expectations</td>
<td>Meets Expectations</td>
<td>Exceeds Expectations</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Communication</td>
<td>▪ Structure, spelling or grammar is not acceptable</td>
<td>▪ Structure does not follow provided guidelines</td>
<td>▪ Structure follows provided guidelines</td>
<td>▪ Structure follows provided guidelines and text flows well enhancing the clarity of report</td>
</tr>
<tr>
<td>(Note that the grades or grade adjustments for this section are applied to the full Report Grade)</td>
<td></td>
<td>▪ Spelling and grammatical errors are frequent and detract from clarity of report</td>
<td>▪ Spelling and grammatical errors are infrequent and do not detract from clarity of report</td>
<td>▪ No spelling or grammatical errors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Graphics are not to an acceptable standard</td>
<td>▪ Graphics are to an acceptable standard</td>
<td>▪ Graphics are to a professional standard</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-2 grade points</td>
<td>No change</td>
<td>+1 grade point</td>
</tr>
</tbody>
</table>

[1] Thoroughly Assessed:
- Critical evaluation of initial client problem statement
- Eliminate biases
- Evaluate assumptions
- Analyse key phrases
- Establish functional requirements
- Identify constraints

[2] Well Defined:
- Concise
- Justified in context of client needs
- Scope appropriate to resources
- Open-ended

[3] Readily Available:
- Course material
- Work term experience
- Initial client needs statement
- Superficial use of internet (e.g., Wikipedia, How Stuff Works)

[4] Require Initiative to Identify:
- Ongoing discussions with client & faculty
- Patents
- Trade, academic, media & vendor publications
- Standards and regulations
- Market data
- Customer interviews
- Persistent pursuit of leads arising from resources already identified

[5] Valid:
- Potentially feasible
- Consistent with problem definition
- Informed by information gathering
- Incremental to the state-of-the-art

[6] Appropriate:
- Judicious selection of points of analysis
- Judicious selection of methods of analysis
- Correct application of methods

[7] Verified: An alternate method or source of information was used to corroborate the analysis.

[8] Documentation:
- Drawings
- Bill of materials
- Schematics
- Pseudo code.

Reviewer’s comments: