Design Foundation Document Rubric

Team Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  |  | **Cycle 1** | **Cycle 2** |
| 1. | Relevance and completeness of Design Context Review discussed | /100 |  |
| 2. | Quality of Market Analysis | /100 |  |
| 3. | Quality of Customer Needs | /100 |  |
| 4. | Quality of Design Specifications | /100 |  |
| 5. | Quality of references cited | /40 |  |
| 6. | Quality of document structure and organization | /30 |  |
| 7. | Quality of figures, tables and captions | /30 |  |
| 8. | Response to comments/ previous grading |  | \* |
|  | TOTAL: | /500 |  |

            \* can earn up to 75% of previously lost points

Grading elements in Design Foundations Document

|  |  |  |  |
| --- | --- | --- | --- |
|  | Excellent (max pts) | Average (mid pts) | Poor (lowest pts) |
| Relevance and completeness of Design Context Review | Team provides sufficient background to set up and explain the problem statement. Relevance of all background discussed to problem statement is immediately apparent. Reader never questions why a particular subject is being discussed or wonders why a subject wasn’t discussed. Problem statement is made precisely and concisely. | Background may occasionally drift off-topic. Reader may occasionally question why a topic is being discussed or have questions about material that was not addressed Problem statement may not be worded effectively. | Background does not sufficiently describe the project’s rationale or motivation. Discussion may ramble off-topic or focus too much on one area at the expense of another. Reader has significant questions about team’s knowledge and preparation. Problem statement is incomplete and fails to provide motivation for the team’s project. |
| Quality of Market Analysis | Market Analysis identifies several possible market segments, and the rationale for their size is solid and supported by data. A complete survey of competitive products is presented. Customer’s willingness to pay, and final selection of target segment is supported by solid reasoning, literature and/or data. | Market Analysis does not explore fully potential market segments. Size is estimated, but rationale is weak. Willingness to pay and final selection of target segments is not fully supported. | Market analysis neglects some key segments and competitive products. Rationale behind market size, willingness to pay and/or final selection has significant flaws. |
| Quality of Customer Needs | Research and collection of raw data from customers shows significant effort, and broad understanding of customer needs. Customer needs are interpreted into clear, well-structured statements. The organization of these needs and their priority are clearly and logically explained. | Team did not take advantage of all opportunities to collect raw data from customers. There may be some lack understanding of the customer’s needs. Organization and prioritization is not fully explained or well supported. | Significant lack of understanding of key customer needs. Poor structure of customer need statements. Organization and prioritization have significant flaws. |
| Quality of Design Specifications | All customer needs are mapped to clear, measurable metrics, or rationale is given. Metrics are within the ability of the team to measure. Values (both Ideal and marginal) seem logical and attainable. | Some customer needs are not supported by strong metrics. Metrics may seem difficult to measure, or values seem too difficult to achieve. | Many customer needs are not supported by strong metrics. Metrics and/or values are unreasonable. |
| Quality of references cited | Literature cited demonstrates extensive research in all aspects of team’s project area. Sources are peer-reviewed and credible. Citations appear appropriately in text. | Literature cited is incomplete. Team may have neglected some aspects of its project area or consulted inappropriate or “soft” sources. OR citation method may be inadequate, with sources not cited when needed. | Literature cited neglects key aspects of project OR comprises mainly “soft” sources OR citations are absent (no references cited in text). |
| Quality of document structure and organization | Background is problem-focused with problem statement appearing at the end of the document. Transitions between topics occur logically. Team leads with assertions and provides clear forecasting sentences or subheads to guide reader through the document. Grammar/spelling is not distracting. | Background generally stays on topic, but may meander or lack flow. Transitions and other cues to guide reader may be lacking; key points occur at the end rather than the beginning of paragraphs. | Problem statement is not stated at the end of the document OR background is disjointed and team-centered rather than problem-focused. Transitions and other cues to guide reader are absent. Document may be incomplete, sloppily organized, or poorly written. |
| Quality of figures, tables and captions | Figures are included to explain content or enhance points made in text. Figures are numbered and referenced in text, and figure content is appropriately labeled. Captions explain the figures thoroughly. | Figures are used but may not be explained well or are not appropriate to content. Some figures may be poorly labeled or difficult to interpret. Figure captions may not be complete. | Figure usage is ineffective. Figures do not enhance the points made in the text. Figures may be difficult to understand. Captions are not used effectively or are absent. |