

User Needs Draft: Evaluation Rubric				
Disease State Fundamentals (20%)	Excellent (typically "A" work)	Good (typically "B" work)	Fair (typically "C" work)	Needs Improvement (typically "D" work)
Content: - Definition of clinical need (i.e. disease state) - Description of scale/scope of disease (i.e. epidemiology) - Summary of patient's journey and typical treatments/outcomes - What drug or growth factors are most promising to improve patient outcomes	- <b>Disease state</b> is sufficiently defined for an educated outsider (e.g. not a clinician) to understand the need - Key facts about the <b>disease and its treatment</b> , including those related to its breadth and limitations, are presented - The <b>pathway/experience of a patient</b> , from the initial onset through diagnosis and treatment options, is well defined - <b>Drugs or Growth Factors</b> , and the <b>healing/recovery pathway</b> is described to highlight options for drug eluting products - Vocabulary is used which reflects a comfort with the clinical space - Citations are ample and appropriate	A few <b>minor</b> issues in categories such as the below:  - Disease state is lacking in detail and/or does not convincingly elucidate the need - Sufficient facts and/or citations are not presented to characterize how the disease is seen from the clinical/epidemiological perspective, experienced from the patient perspective, and encountered from the clinicians' perspective - The wound healing and problem pathways are not described, and it is unclear what our future product could elute - Vocabulary demonstrates a general lack of comfort with the relevant terminology - Citations lacking or in inappropriate format	Several <b>significant</b> issues in categories such as the below:  - Disease state is lacking in detail and/or does not convincingly elucidate the need - Sufficient facts and/or citations are not presented to characterize how the disease is seen from the clinical/epidemiological perspective, experienced from the patient perspective, and encountered from the clinicians' perspective - The wound healing and problem pathways are not described, and it is unclear what our future product could elute - Vocabulary demonstrates a general lack of comfort with the relevant terminology - Citations lacking or in inappropriate format	<b>Missing</b> key information and/or <b>substantial issues</b> in categories such as the below:  - Disease state is lacking in detail and/or does not convincingly elucidate the need - Sufficient facts and/or citations are not presented to characterize how the disease is seen from the clinical/epidemiological perspective, experienced from the patient perspective, and encountered from the clinicians' perspective - The wound healing and problem pathways are not described, and it is unclear what our future product could elute - Vocabulary demonstrates a general lack of comfort with the relevant terminology - Citations lacking or in inappropriate format
Existing Solutions & Regulation (20%)				
Content: - Description of product(s) which are either currently used or fulfill a similar function in another field - Visuals of the products - Explanation of the products' shortcomings - Analysis of the gaps and opportunities for an innovation - Discussion of the suitability of any product as substantially equivalent (ie. predicate device or not) - Discussion of regulatory path, including device classification	- Products highlighted capture the <b>spectrum of products / approaches</b> available - Existing products / approaches are <b>well described</b> including what they are, how they work, their <b>strengths/weaknesses</b> - Connections are established between existing products and need statement via the <b>identification of shortcomings</b> - <b>Visuals</b> of the products effectively illustrate <b>important aspects</b> of said products - Products highlighted are accurately described as a <b>predicate or not a predicate</b> device. - Categorization of your future design ( <b>biologic, drug, device, or combination</b> ), device classification ( <b>I, II, or III</b> ) and regulatory path ( <b>510K, exempt, de novo, or PMA</b> ) are correct, clear, and thorough. - Citations are ample and appropriate	A few <b>minor</b> issues in categories such as the below:  - Clarity and/or a few missing details of the product(s), how they work, their strengths, and/or shortcomings - Connection to the problem statement is a little unclear - Products don't fully represent the most relevant solutions in and/or outside of the field - Analysis of the gaps/opportunities are not fully convincing and/or evidence-based - Incorrect conclusions on substantial equivalence or lack of details in regulatory pathways - Citations lacking or in inappropriate format	Several <b>significant</b> issues in categories such as the below:  - Clarity and/or a few missing details of the product(s), how they work, their strengths, and/or shortcomings - Connection to the problem statement is a little unclear - Products don't fully represent the most relevant solutions in and/or outside of the field - Analysis of the gaps/opportunities are not fully convincing and/or evidence-based - Incorrect conclusions on substantial equivalence or lack of details in regulatory pathways - Citations lacking or in inappropriate format	<b>Missing</b> key information and/or <b>substantial issues</b> in categories such as the below:  - Clarity and/or a few missing details of the product(s), how they work, their strengths, and/or shortcomings - Connection to the problem statement is a little unclear - Products don't fully represent the most relevant solutions in and/or outside of the field - Analysis of the gaps/opportunities are not fully convincing and/or evidence-based - Incorrect conclusions on substantial equivalence or lack of details in regulatory pathways - Citations lacking or in inappropriate format
Stakeholder Analysis (20%)				
Content: - Written summaries of positive and negative impact for each stakeholder identified, using both cycle of care and the flow of money analysis - Graphical representation of your findings (e.g. flowchart with stakeholders as nodes and indicators of positive/negative effects.)	- Stakeholders from <b>both</b> cycle of care and flow of money analyses are presented are well-considered, leaving no major gaps - Analysis is balanced, conveying accurately how parties would <b>benefit or not</b> from the meeting of the communicated need - <b>Chart(s)</b> is presented which clearly indicates the <b>connections</b> between stakeholders and provides a visualization of their effect (e.g. by arrows, with + or - ) - Citations are ample and appropriate	A few <b>minor</b> issues in categories such as the below:  - Diagram either missing entirely or insufficient in extent - Claims about stakeholders present without sufficient justification/rationale - Analysis indicates overwhelming negative reaction to need being addressed without ample discussion - Analysis oversimplifies (e.g. takes "too rosy of a view") the reactions of stakeholders - Citations lacking or in inappropriate format	Several <b>significant</b> issues in categories such as the below:  - Diagram either missing entirely or insufficient in extent - Claims about stakeholders present without sufficient justification/rationale - Analysis indicates overwhelming negative reaction to need being addressed without ample discussion - Analysis oversimplifies (e.g. takes "too rosy of a view") the reactions of stakeholders - Citations lacking or in inappropriate format	<b>Missing</b> key information and/or <b>substantial issues</b> in categories such as the below:  - Diagram either missing entirely or insufficient in extent - Claims about stakeholders present without sufficient justification/rationale - Analysis indicates overwhelming negative reaction to need being addressed without ample discussion - Analysis oversimplifies (e.g. takes "too rosy of a view") the reactions of stakeholders - Citations lacking or in inappropriate format
Market Analysis (20%)				
Content: - Analyze the properties (size, growth, and dynamics) of the market (TAM) ---- Include a graphic of the market dynamics - Identify the target market (Population), separating into Total Available Market, Serviceable Available Market, and Serviceable Obtainable Market (TAM, SAM, SOM) ---- Include a graphic of TAM, SAM, and SOM - Describe who you expect to compete with for market share, as justification for your SOM from the identified SAM	- TAM/SAM/SOM are justified with <b>written rationale</b> for their calculations - <b>Graphics</b> are appropriately presented which highlight both the <b>general dynamics</b> of the TAM and also the <b>breakdown of the TAM/SAM/SOM</b> - <b>Major players</b> are identified along with <b>example offerings</b> (linked to existing solution analysis above) and a breakdown of the relative dominance/parity in the market - Justifications for split from Total to Available to Obtainable are reasonable and based on <b>team's choice</b> of selling to or competing with major players - Citations are ample and appropriate	A few <b>minor</b> issues in categories such as the below:  - Graphics missing entirely or do not effectively communicate market dynamics - Approach to TAM/SAM/SOM lacking in justification or quantification - Missing market players and/or lacking information about their relative share of the market - Errors or missing expansion on the suitability of the market for a product with relation to the key players and future dynamics - Citations lacking or in inappropriate format	Several <b>significant</b> issues in categories such as the below:  - Graphics missing entirely or do not effectively communicate market dynamics - Approach to TAM/SAM/SOM lacking in justification or quantification - Missing market players and/or lacking information about their relative share of the market - Errors or missing expansion on the suitability of the market for a product with relation to the key players and future dynamics - Citations lacking or in inappropriate format	<b>Missing</b> key information and/or <b>substantial issues</b> in categories such as the below:  - Graphics missing entirely or do not effectively communicate market dynamics - Approach to TAM/SAM/SOM lacking in justification or quantification - Missing market players and/or lacking information about their relative share of the market - Errors or missing expansion on the suitability of the market for a product with relation to the key players and future dynamics - Citations lacking or in inappropriate format
Summary (20%)				
Content: - Who is impacted, magnitude of the problem (Population) - Description of the current situation and difficulties (Problem) - Summary of existing solutions and their limitations (Outcome) - Need statement - Scope/constraints imposed by VMO	- An overall summary that supports the Problem, Population, and Outcome to be seen in the Need Statement, which effectively establishes the design space ---- summary <b>quickly</b> states the Problem, who is impacted/stakes of the Problem, and is backed by appropriate statistics, pulled from earlier sections of the report - Need statement is <b>concise, well-scoped, and actionable</b> ---- Superseding needs, if present, are noted along with a discussion of the likelihood that they will be addressed by other parties - After the initial needs are defined, the scope is defined considering the constraints from VMO (bypass graft or hip implant)	A few <b>minor</b> issues in categories such as the below:  - Lacking clarity, accuracy, and/or completeness of the problem description, existing solutions summary, or need - Impact/magnitude is not quantified but is qualitatively described (or not described at all) - Problem narrative and/or framing is somewhat unconvincing, missing some supporting evidence from the four categories presented in class - Need statement is not concise and/or <b>introduces new information not supported by the problem</b> - <b>Need statement is solution biased</b> - Scope does not match what VMO has asked the team to focus on, without compelling argument to do so	Several <b>significant</b> issues in categories such as the below:  - Lacking clarity, accuracy, and/or completeness of the problem description, existing solutions summary, or need - Impact/magnitude is not quantified but is qualitatively described (or not described at all) - Problem narrative and/or framing is somewhat unconvincing, missing some supporting evidence from the four categories presented in class - Need statement is not concise and/or <b>introduces new information not supported by the problem</b> - <b>Need statement is solution biased</b> - Scope does not match what VMO has asked the team to focus on, without compelling argument to do so	<b>Missing</b> key information and/or <b>substantial issues</b> in categories such as the below:  - Lacking clarity, accuracy, and/or completeness of the problem description, existing solutions summary, or need - Impact/magnitude is not quantified but is qualitatively described (or not described at all) - Problem narrative and/or framing is somewhat unconvincing, missing some supporting evidence from the four categories presented in class - Need statement is not concise and/or <b>introduces new information not supported by the problem</b> - <b>Need statement is solution biased</b> - Scope does not match what VMO has asked the team to focus on, without compelling argument to do so
REMINDER: Logistics (up to 10% deduction if not correct)				
Font, font size, spacing, margins, page numbers, and word limits		See assignment description	A few <b>minor</b> issues	Several <b>significant</b> issues  <b>Missing</b> and/or <b>substantial issues</b>