Project Deliverable B: **Needs, Problem Statement, Metrics, Benchmarking and Target Specifications**

GNG 2101 – Intro. to Product Dev. and Mgmt. for Engineers

Faculty of Engineering – University of Ottawa

Objective:

Empathize with your client and truly understand their problems. Translate their statements into a list of interpreted needs and prioritize them. Create a problem statement, do benchmarking, develop a list of metrics and define target specifications. Finally, reflect on the process. This will ensure that you are truly "solving the right problem".

Instructions:

Teams will put together a document outlining the following key elements of the problem definition process (in the order below):

1. A list of client statements/observations obtained from client interviews.
2. A list of translated and prioritized customer needs (using the five techniques shown in class: what not how, specificity, positive, attribute of the product and avoid words must and should)
3. A problem statement (what is the problem, who has the problem, and what form can the solution be)
4. A list of metrics with associated units. Identify which needs each metric address.
5. Benchmarking of similar products (this can be products that satisfy some or all of the needs defined above). Provide descriptions and pictures when possible!
6. A set of target specifications (both ideal and marginally acceptable values). Provide reasons for your choices.
7. A reflection on how the client meeting impacted your results and the process.

Feel free to speak to other potential clients related to the project on your own. This will help strengthen your results. The mountain bike fork tables presented in the lecture can be used as an example to help you complete the steps listed above.

<u>Important reminder:</u> Metrics are measureable design criteria that MUST be based on the list of identified customer needs. These same metrics are then used for benchmarking and defining target specifications. See example on Brightspace.

Self-assessment:

Before submitting this deliverable to Brightspace, as a group, you must evaluate your own performance by using the rubric found in the Brightspace folder for this deliverable and by completing the following Google form:

https://docs.google.com/forms/d/e/1FAIpQLSeYfETgByy-2hVb6lNP5K2wXXaMWADpCaXFfSjQu_6pgjy4QQ/viewform?usp=sf_link

The self-assessment is intended to help students develop skills for evaluating their own work according to the specified criteria any time they produce or deliver a work.

Submission:

Each team (***only one person from each team***) must submit a PDF copy of this deliverable by uploading the file as an attachment into Brightspace.

Due Date:

See Brightspace.