UoU SIAM Chapter 2021 Modeling Competition Rules

I. **Forming teams**
   A. Teams will consist of up to three (3) undergraduate students currently enrolled at the University of Utah. Participants do not need to be in a specific major and are encouraged to form teams with a diverse set of knowledge.
   B. It is recommended that students have taken, or are currently in, Calculus 3 to participate.
   C. If you would like to participate, please fill out the Google registration form here.
   D. Individual entries are welcome, and we will do our best to place students on teams with others at a similar level of mathematical experience.

II. **Rules**
   A. The competition will run all day on March 13th, and submissions are due at 11:59 PM MST.
   B. During the competition, teams may not receive live assistance from outside of their team. This includes seeking assistance via message boards, support websites, etc. Teams may use any previously posted material (i.e. academic articles, books, webpages), but they must be appropriately referenced in the final solution and cited.
   C. Solutions must be submitted as a single PDF file and can be handwritten, typeset, or a combination of the two. Any handwritten parts of solutions must be legible.
   D. There is no strict page limitation as the length of handwritten solutions may vary. However, solutions should fit in a 5-page typed document with 12-point font and standard margins.

III. **During the Competition**
   A. The problem will be made available at 12 AM MST on March 13th on the University of Utah SIAM chapter's website.
   B. Alongside the problem, some recommended resources will be included.
   C. Specific resources will be highlighted for students who expect to take a calculus-based approach to the problem.
   D. Solutions should consist of three parts: a summary, a model, and a page of citations.
   E. The summary should be written last and should contain an overview of the team's findings. It should also provide a clear recommendation as it pertains to the prompt.
   F. The model section should include any derivations, computations, and other discussions.
   G. Teams are encouraged to make simplifying assumptions where necessary.
   H. We recommend citations be in the AMS style, but any citation style is fine as long as the original source can be found with the included information.

IV. **Evaluation**
   A. Solutions will be evaluated by graduate student members of the University of Utah SIAM chapter.

B. Solutions will be judged on three (3) criteria: clarity, soundness, and creativity.
C. Judges will prefer full solutions that are effectively able to incorporate all information provided in the problem statement. Solutions that make simplifying assumptions will be preferred over partial solutions and those that incorporate superfluous information for their model.

V. Sample Problems

A. This is the inaugural competition, so we do not have previous questions to point students to. We suggest looking at previous problems from other competitions. Some examples are provided below:
    1. https://www.comap.com/undergraduate/contests/mcm/previous-contests.php
    2. https://sites.google.com/a/umn.edu/siamchapter/events/mcm/pastproblems

    Please note that the above problem examples had different amounts of allotted time, so the given problem will be different in scope.