

SCUDEM Scoring Rubric

Overview: Executive Summary and Presentation will be scored holistically on a 5 point scale from 1 (poor work) to 5 (excellent work) rubric. The score will consider three aspects: execution, communication, and correctness. To earn a 5, work must be *well-executed*, *well-communicated*, and *essentially correct*.

The Executive Summary will be scored by assembled faculty coaches while the Presentation will be scored by assembled faculty coaches and team members.

Definitions:

Well-Executed

- Applies a **strategy** that makes sense for the given question
- Applies appropriate mathematical concepts and processes
- Does not offer superfluous material
- Technology is used appropriately
- Work is logical and includes a reality check of the final answer

Well Communicated

- **Readable:** Work *stands alone* (retains context) and is neat and professional
- **Organized:** Provides a *clear logical* flow
- Provides detail, rationale, explanation
- Work is free from grammatical errors
- Mathematical composition, terminology, and notation is correct
- Results and/or conclusions are clear

Essentially Correct

- **Precision:** Performs mathematical operations correctly
- Makes and uses assumptions clearly
- Uses an appropriate degree of accuracy
- Draws correct inferences from graphical or numerical data
- Any computational or algebraic errors are trivial and isolated
- Correct units are used

Score Descriptors:

5	4	3	2	1
Excellent	Very Good	Good	Fair	Poor
Well-executed, well-communicated, essentially correct. Offers reflection on model.	Generally well-executed but may have minor communication flaws or some errors. Describes model development.	Adequately executed but with some non-trivial errors or inconsistent communication. Conveys basic idea and rationale for model.	Flawed execution possibly with non-trivial errors or poor communication. Model presentation not clear or conveyed well.	Unsatisfactory execution and/or communication with fundamental errors. Lack of clarity in defining terms and explaining model.

Final Awards:

For each event, Executive Summary and Presentation scores will be averaged from all judges and tabulated scores ranked high to low. Awards will be determined for teams as follows: Outstanding, Honorable Mention, Successful. All teams are expected to complete and defend a model involving differential equations and thus merit some award. Additional comments from judges are encouraged and will be distributed to coaches on the score sheets at the competition. Award certificates will be sent electronically to coaches one week after Competition Saturday upon completion of Post-Event survey by coach and all team members.