

To: ENRG 132 project teams
From: Avery D. Lion, President, Natural Catalysts Inc.
Date: April 26, 2021
Re: Technical Brief of Final Results



Your algorithm development has helped us gain insights into our testing protocols, equipment, and data analysis for our NextGen enzymes. For this milestone, along with your algorithm refinements, you will also need to create a résumé insert and submit a technical brief. As our project moves toward its conclusion, it is important for you to understand our expectations for your submission of a final technical document. Here are the guidelines for what your final technical brief should include:

- A clear description in plain English (not code or pseudocode) of your algorithm for parameter identification. I understand that you have completed the project in MATLAB, but please write this description using platform-neutral language (our engineers may eventually code your procedure using another platform). Do not reference specific MATLAB commands or processes; instead write the description in a generic way.
- A concise description of your parameter identification results. Include a figure of your final Michaelis-Menten results, as well as a table of the maximum reaction velocities and Michaelis constants for each enzyme. Be sure that the table and figure are formatted professionally and are suitable for communication of information to a technical audience.
- A 1-2 paragraph summary that answers the core questions we originally posed to you:
 - How can you characterize the error in this process? Please comment on the quality of the experiments themselves, and also on your parameter identification algorithm. Use evidence to support your case, including specific data from your analysis and outside references as appropriate.
 - What can NaturalCatalysts honestly say about our products in terms of their performance and manufacturing consistency?
- If you have used outside references, please list them at the end of the memo in APA format.

The technical brief **must not exceed 2 pages of text including references**, although figures or tables may go on to the third page. Under no circumstances are you allowed to exceed three total pages. You should compose your technical brief according to the guidance provided on the technical brief template provided by your instructor.

Work with your instructor, GTAs, and/or Peer Teachers to get feedback on your technical brief during class before your final submission if you would like. Your teaching team members can read small sections of your technical brief with you and give you direction as needed.

- You will submit the final version of the technical brief with the rest of M4 by **11:59 PM EDT on Friday, April 30, 2021.**

Thank you as always, and we look forward to seeing your final technical brief.