ENGR141 Grade Report: Project 2 Report

Team Team 59	**Total Points Earne**	86.00		
Grade Casey Schilling	**Total Points Possi**	133		
Grad Peter Jones	**Percentage Earne**	65%		

Grading System Message(s)	

Grader 1

Format	Pass	Part	Fail
Margins: 1.25" left/right, 1" top/bottom	1	NA	0
Line spacing: 1.5	1	NA	0
Font: Size 12 Times New Roman	1	NA	0
Cover sheet has report title, team number, and names	1	NA	0
All sections (eg Executive Summary, Design Considerations) have clear, distinctive	1	NA	0
File Name: Proj2_Report_TeamXX .pdf	0	NA	1
All figures have numbers, captions, and are mentioned in the body of the report	2	NA	0
All sources appropriately referenced with APA citations (if references used)	1	NA	0
Python3 files Proj_BPModel_TeamXX.py, Proj2_LeastSquares_TeamXX.py (if not in main file), and any supporting files submitted	1	NA	0
Appendix includes clear graphs of cleaned data	2	1	1
Avg Subtotal	**8.00**	**of**	**11**

Cover Letter	Pass	Part	Fail
Addresses Dr. Francis S. Collins, Director, National Institute of Health	2	1	0
Gives a concise introduction and summary to the project	2	1	0
Follows the Cover Page and precedes the Executive Summary	1	NA	0
Is formatted in an organized fashion	1	0.5	0
Is written clearly and professionally	2	1	0
Avg Subtotal	**7.00**	**of**	**8**

Executive Summary	Pass	Part	Fail
Has a clear and simple description of the problem being solved that would make sense to someone with no preliminary knowledge	2	1	0
Describes the unique aspects of their designs that make them good responses to the design requirements	2	1	0
Gives a factual description of the performance of the project	2	1	0
Is no more than one page	1	NA	0
Is written clearly and professionally	2	1	0
Avg Subtotal	**5.00**	**of**	**9**

Model Development Process	Pass	Part	Fail
Addresses the optimization analysis for the bioprinter model and considers all relevant design variables.	3	1.5	0
Provides description of requirements and goals/targets	3	1.5	0
Clearly indicates measures of success including requirements and metrics	3	1.5	0
Describes appropriate assumptions made and explains why they were made and why they are valid or necessary (including references for support)	3	1.5	0
Provides examples of the models' outputs for the specific case study and explains the significance of the case study inputs	3	1.5	0
Describe appropriate validation methods for the models	3	1.5	0
Has a detailed description of the algorithm design, including both positive and negative attributes and why it was selected	3	1.5	0
Figures and tables used were relevant and explanatory, when present	3	1.5	0
Is no more than 3 pages	1	NA	0
Is written clearly and professionally	3	1.5	0
Avg Subtotal	**#####**	**of**	**28**

Conclusions and Recommendations	Pass	Part	Fail
Contains a concise and complete summary of the project and performance	3	1.5	0
Has thoughtful recommendations for improvement	3	1.5	0
Is no more than one page	1	NA	0
Is written clearly and professionally	3	1.5	0
Avg Subtotal	**7.00**	**of**	**10**

Grader 1 Total	**44.5 of 66**

Grader 1 Comments

Formatting-wise: Make sure you give your report a title, just like you would for any other paper you write. In addition, it is more appropriate to include the figures and tables you talk about in the body of the text right there in the body of your text so that it is easy for the reader to connect the two items. Appendices are more for raw data (like comparing unclean data to the cleaned data) or background information that you don't need to show, but it would be good for the reader to see. Also, something to carry in the future (although not graded in this class), in most reports and majors figures are captioned and number below the figure while tables are captioned and numbered above the table. Finally, be sure you are included the correct in-text citations per APA guidelines. It's really isn't enough to just have the reference page if I don't know what is exactly coming from those resources.

Cover letter: I would like to see a little more background on the project itself. You seem to just jump right in and say this is what you are doing, boom. It would be more appropriate to include a introductory statement to refresh Dr. Collins memory of what and why you are turning this into him.

Executive Summary: Definitely here you'll want more project background (not a lot or in depth, but you wanted some) and generally, I think it was a good cover of the model and assumptions, but you'll want to highlight your uniqueness and the results in more depth.

Model: First, I'm not sure it is the best use of space to include all the data cleaning steps. For me, it would be more professional to include all specific data cleaning items in the appendix, but in the main body only highlight major or general data cleaning steps (like shifting the data or deleting points where human error caused issue). One item I would have liked to see validated (or explained better) is why you chose the regressions you did, i.e. what indicates that a power regression is the best fit for temp vs. dim error? Does it logically make sense based on research that that should be? Much of you Model Development left me wondering "why?" which leads to doubt in the reader's mind. For instance, the cure time equation... If this was a given equation/step that should be stated because the reader may not have the project prompt in front of them and may be going solely off your report. So they have no idea why that is a relevant equation for cure time. You did a good job explaining the factor of safety and why it was required, but you could have validated or justified more why your equation for it was optimal or how you came to find the recommended FoS for each part. Overall, I like how it was wrote... It read in a professional tone, however the content could have been stronger. That will come with time and practice.

Conclusion: Good summary of the problem, just remember to conclude the report on your model. What I mean is that you should focus on your results, what you did and how you recommend it be improved in the future (vs. how bioprinting can be improved in the future).

Nice report, Team 59! There's a lot to improve for Proj. 3 report, but this was a good first technical project report.

Grader 2

Format	Pass	Part	Fail
Margins: 1.25" left/right, 1" top/bottom	1	NA	0
Line spacing: 1.5	1	NA	0
Font: Size 12 Times New Roman	1	NA	0
Cover sheet has report title, team number, and names	1	NA	0
All sections (eg Executive Summary, Design Considerations) have clear, distinctive	1	NA	0
File Name: Proj2_Report_TeamXX .pdf	0	NA	1
All figures have numbers, captions, and are mentioned in the body of the report	2	NA	0
All sources appropriately referenced with APA citations (if references used)	1	NA	0
Python3 files Proj_BPModel_TeamXX.py, Proj2_LeastSquares_TeamXX.py (if not in main file), and any supporting files submitted	2	NA	0
Appendix includes clear graphs of cleaned data	2	NA	0
Avg Subtotal	**8.00**	**of**	**12**

Cover Letter	Pass	Part	Fail
Addresses Dr. Francis S. Collins, Director, National Institute of Health	2	1	0
Gives a concise introduction and summary to the project	2	1	0
Follows the Cover Page and precedes the Executive Summary	1	NA	0
Is formatted in an organized fashion	1	0.5	0
Is written clearly and professionally	2	1	0
Avg Subtotal	**8.00**	**of**	**8**

Executive Summary	Pass	Part	Fail
Has a clear and simple description of the problem being solved that would make sense to someone with no preliminary knowledge	2	1	0
Describes the unique aspects of their designs that make them good responses to the design requirements	2	1	0
Gives a factual description of the performance of the project	2	1	0
Is no more than one page	1	NA	0
Is written clearly and professionally	2	1	0
Avg Subtotal	**4.00**	**of**	**9**

Model Development Process	Pass	Part	Fail
Addresses the optimization analysis for the bioprinter model and considers all relevant	3	1.5	0
Provides description of requirements and goals/targets	3	1.5	0
Clearly indicates measures of success including requirements and metrics	3	1.5	0
Describes appropriate assumptions made and explains why they were made and why they are valid or necessary (including references for support)	3	1.5	0
Provides examples of the models' outputs for the specific case study and explains the significance of the case study inputs	3	1.5	0
Describe appropriate validation methods for the models	3	1.5	0
Has a detailed description of the final design, including both positive and negative attributes and why it was selected	3	1.5	0
Figures and tables used were relevant and explanatory, when present	3	1.5	0
Is no more than 3 pages	1	NA	0
Is written clearly and professionally	3	1.5	0
Avg Subtotal	**#####**	**of**	**28**

Conclusions and Recommendations	Pass	Part	Fail
Contains a concise and complete summary of the project and performance	3	1.5	0
Has thoughtful recommendations for improvement	3	1.5	0
Is no more than one page	1	NA	0
Is written clearly and professionally	3	1.5	0
Avg Subtotal	**7.00**	**of**	**10**

Grader 2 Total	**41.5 of 67**

Grader 2 Comments

There were grammatical errors sprinkled throughout the report. The Executive Summary should be just that, a summary. Show a broad overview of what was done without delving into too many technical aspects. Give a basic idea of what the model is and how it was reached. The focus of the model should be on how the model was made and why it was made that way. While the data cleaning is important, it took up far too much of the report and did not allow room for more important articles. In the conclusion, there needs to be a lot more discussion of potential room for improvement. Or is the conclusion that the model is perfect, if it is, why is it?