# DA6213 Two or Three Person Team Presentation Guidelines and Instructions

So here are the suggested guidelines for your DA6213 **team project.** **You may elect to have at most two other teammate, so a team of three people is the largest team possible or you can do an individual project.** Note that you have seven (7) minutes to do your presentation, so it needs to be fairly concise and succinct. Your presentation grade will be based both upon the content of the presentation – its completeness, accuracy and understandability to your audience – as well as the quality of your presentation. Presenting your work in front of others is an important workplace skill and this will give you additional experience in doing this in the program.

Typically, you may pick one of the five statistical techniques that we will cover in the semester: Experimental **analysis, Linear Regression, Logistics Regression, Survival Analysis, correspondence analysis or time series analysis**. If you pick a timeseries analysis then I will schedule your presentation at a time slot later in the presentation order so that you have sufficient time to put together your slides. The idea here is to demonstrate particular competence in one of these techniques.

I will entertain **a very few special requests** to do a topic covered in class outside of the analysis: you could do a presentation on new topics or challenges in the science and philosophy of models, digital privacy or data governance. **I will warn you however, that you will have to convince me in way in advance and that won’t be easy** - I will only consider well thought out requests with specific details and there will be much higher expectations for this exception if I grant it to you. I will not entertain last minute requests for these special topics – you will have to declare your intention and present your case to me soon. Note you will really have to work much harder and spend much more time on this type of presentation to produce an outstanding presentation (in 7 minutes) **if** I decide to let you do one of these topics. If you do not meet those expectations for this exception to the statistical work then it will not be pretty.

Almost all your work will be going on the statistical technique route. Here is what I want to see in your concise 7-minute presentation:

1. A description of the business challenge. Why is this an important question to answer? What might you gain from the analysis of the data.
2. You must find your own data set. There are lots of data sets out there online – be sure to find one that is appropriate for the statistical technique you have chosen to demonstrate your competence in. If you pick an inappropriate data set for the statistical technique you have selected, that will be deadly. Consult me if you have doubts about the appropriateness of the data set for one of four statistical techniques listed in these guidelines. Do not choose a statistical data that has been covered in this class, in another class or any assignments– that will also be a deadly choice.
3. If you have trouble finding an appropriate data set, I may be able to help. Note the word may – do not surprise me at the last minute and state you can’t find an appropriate set – I will not be amused. Do not “recycle” one of the data sets – in particular the variables – that I have used in class.
4. Do a quick descriptive analysis of the variables involved in the analysis. A couple of pretty charts, descriptive statistics or similar would be appropriate here.
5. Tell me how you will deal with missing values. Hopefully you have picked a data set with not too many missing values. If that is the case, those cases can be excluded from the analysis (e.g. list-wise deletion). If there turn out to be a lot of missing cases then you might want to consider another data set. Tell me in your presentation about dealing with missing cases – especially if you decide to deal with them in some manner such as mean substitution, hot deck, EM or other method.
6. Present the assumptions of the test such as normality, homoscedasticity, etc. You should be prepared to test at least some of these assumptions and show the results of those tests as well as how you are dealing with them. Be sure to include the statistical test results in your slides that show the output of those tests.
7. Step us through the analysis table by table, interpreting for your audience what each table in your analysis means. Most statistical techniques require multiple tables in order to tell the whole story. Be sure that you do in fact tell the whole story.
8. Be sure to cover at a minimum the topics and analyses that we covered in our class for that statistical technique. For example, if you choose survival analysis, I would expect to see a log rank test and survival curves. If you did a logistic regression I would expect to see you perform odds, odds ratio, confusion matrix(when appropriate) and evaluate your model accordingly. You will earn brownie points and a better grade for any additional analyses beyond what was presented in class.
9. Your presentation should demonstrate your competency in this technique. Therefore be sure in your talk to present details show you understand the technique. Additionally, pitch your technique at a level that you might if you were giving a lecture to students in class. That is, be sure that you explain what you are doing in a manner that it would be easy for a student audience to understand – this takes more skill than perhaps it might first appear.
10. Be sure that your last slide is a quick summary of how you covered the business challenge and the conclusion(s) you reached.

I expect given the seven (7) minute time limit that you should have somewhere in the vicinity of 10-12 slides or so. It depends upon how much material there is to cover and how efficiently you can present the material. Speed talking your presentation will result in a loss of points for the quality of the presentation. I would strongly recommend that you practice your presentation both for delivery quality as well as timing purposes. You will get a 30 second grace period past the 7 minutes – go over that grace period and points will suddenly begin to disappear from your score as an overtime penalty. **Your deck and your statistical output are your deliverables post-presentation.**