

Frequently Asked Questions

Excel Word Assignment 2016

Contents

Question 1 – Accessing Journal Articles for Free	1
Question 2 – Numbering Equations and the Microsoft Caption Tool	2
Question 3 – Completing Regression in Excel on a Mac.....	2
Question 4 – Technical Report Format/Structure	3
Question 5 – Formatting Title Pages.....	3
Question 6 – Assessment of Writing Style.....	3
Question 7 – Formatting Error Bars.....	4
Question 8 – Referencing Information Given in the Assignment	5
Question 9 – Required Number of Significant Figures.....	5
Question 10 – Should the Regression Line Be Forced Through the Origin.....	5

Question 1 – Accessing Journal Articles for Free

I do not seem to be able to access the full journal article in Question #2 without purchasing it. Is there a way that my Queen's University NetID would enable me to view the full article or other journals?

You can gain full access to the journal article (and thousands of others) using your Queen's NetID.

You will find this useful to know next year 😊.

Here are the steps to do so:

- 1) Visit the Queen's University Library website at:
<http://library.queensu.ca/home>
- 2) Select **Off-Campus Access**



- 3) You will be taken to a page where you can login with your NetID and Password.
- 4) You will now be taken to the following page:



- 5) Insert the URL for the journal article, and click **Go!**
- 6) You should now have the option of full access to the article.

Question 2 – Numbering Equations and the Microsoft Caption Tool

Do I need to use the Microsoft Caption tool to number the equations in my report? Similarly, should I be using the Microsoft Caption tool to generate a List of Equations?

You are not expected to use the Microsoft Caption tool to generate your equations. Similarly, you do not need to include a List of Equations.

Instead, you should insert your equations using the Microsoft Equation Editor and number them manually. Any equations you use should be referenced at least once by number in the explanatory text.

Please remember that you are expected to use the Microsoft Caption tool to generate table and figure captions, and you should include a List of Figures and List of Tables.

Example

Specific weight is the weight per unit volume whereas density is the mass per unit volume. Specific weight is therefore proportional to the density of the fluid, as given by Equation 2.

$$\gamma = \rho g \quad (2)$$

Question 3 – Completing Regression in Excel on a Mac

I am having trouble using StatPlus to complete the regression analysis in Question #2. How can I complete a regression analysis in Microsoft Excel on a Mac?

What version of Excel are you using?

If you have not already, you should download Microsoft Excel **2016**.

It is available for free to all Queen's University students. I have included a link explaining how to download it below:

<http://www.queensu.ca/its/microsoft-office-365/office-365-proplus/tutorials/download-install-mac>

Microsoft Excel 2016 for Macs has been much improved, and you will not need to use StatPlus, which can be quite restrictive. Once you have Microsoft Excel 2016 downloaded, like the students using PCs, you should make sure you enable the 'Analysis Toolpak' plug-in. It is quite easy!

Instructions for how to do so are included below:

<https://support.office.com/en-us/article/Load-the-Analysis-ToolPak-in-Excel-2016-for-Mac-617afc33-4af8-4530-b132-7b4e938890d0>

Once you have the 'Analysis Toolpak' enabled, you can use the instructions for performing a regression analysis provided for PCs. You should not have any trouble with the software restricting your confidence intervals. I have attached the instructions for performing regression using the 'Analysis Toolpak'.

Question 4 – Technical Report Format/Structure

When I looked at examples of writing technical reports I realized it required a lot more than what is described in the assignment. Are we writing ONE technical report or TWO technical reports, one for each question?

You are only expected to make ONE report.

We understand that formatting this report can be a little bit challenging because there are two questions, so we recommend you follow the suggested format outlined in the “**To Hand In**” section of the assignment instructions for each question.

Please also refer to the “**Formatting Requirements**” which begin on Page 3 of the assignment instructions.

Do not forget to include a Table of Contents, List of Figures, List of Tables, and References section.

Question 5 – Formatting Title Pages

The formatting for the title page is not thorough. What font, justification, spacing, and etc, should I use? Can I use a template?

As long as you include all of the required information (name, student number, course number (APSC 100), and submission date), there are no other strict formatting guidelines/requirements for your title page. **Simple is best!**

We recommend using a standard font such as Calibri, Arial, or Times New Roman. Personally, for my title pages (not for the body of my reports) I often use centre justification and larger than an 11 point font.

As long as you include all of the required information, you could use a template (Microsoft Word provides some).

Question 6 – Assessment of Writing Style

I am finding myself researching other universities/resources to see guidelines and examples of reports. Am I doing something wrong or is technical report writing supposed to be a bit challenging? Is this assignment ONLY/heavily about formatting using Excel and Word or does it also heavily focus on writing skill?

This assignment certainly can be challenging. The first time you put together a technical report, properly format your document, integrate your Excel work, etc. can be time-consuming and tricky. The great thing, however, is that once you successfully complete one report, you will find it is much easier and

faster to complete subsequent reports. This assignment is meant as an introduction and review of the skills you will need/develop when writing formal technical reports in APSC 100 Module 2.

It doesn't hurt to consult other resources, but it is important to remember that the expectations for this assignment differ than those at other universities and other technical reports. In this assignment, while still important, less emphasis is placed on the explanatory text used in longer formal, technical reports. As you can see by the marking rubrics, significant weighting is given to proper Word/ Excel use, formatting, and data analysis. **I would focus closely on the formatting requirements, required content, and expectations specified in the Assignment Instructions and Rubric.** As long as you follow those, you should achieve a great result! Your writing style will be assessed, primarily, in the "Descriptive text at the beginning and end of each solution" category of the Microsoft Word rubric.

Question 7 – Formatting Error Bars

I'm working on Question 1 of the assignment and having trouble formatting the error bars for Rory's data because some of the error bars are hard to see. Is there another way I could format the error bars so they're easier to see?

We do expect that the error bars will be quite small, but it is important that they are as **visible**.

Your objective should be to make the comparative lengths of the error bars as visible as possible, **without jeopardizing the distribution/comprehension of your data.**

I have included some tips to make your error bars more visible below.

I do think it is important to note that in some cases, despite your best efforts, due to very small uncertainties (such as the situation you referenced), the **heads of the error bars may appear to be touching some data points.**

For the purposes of this assignment, this is acceptable as long as:

- the bars are **visible/clearly present**
- you have made an effort to format your line/data points/error bars to make your error bars as clear as possible
- you have adjusted your axis if it doesn't significantly jeopardize the distribution of your data
- the error bars for data points with larger uncertainties are very clear

Error Bar Formatting Tips

1. Significantly **reduce the thickness of the line of best fit**. As long as it is visible, having a thin line of best fit is acceptable, and may make your error bars more clear.
2. Similarly, reduce the size of your data points. Personally, I frequently use the smallest data marker size possible (size 2).
3. Consider changing the shape of your data point markers. Certain shapes may block your error bars more than others.

4. Consider changing the “arrow type” of your error bars (this is the marker on each end of your error bars). Personally, I frequently use a straight line/no arrow “cap” to my error bars.
5. Often error bars are automatically grey in colour. You could consider darkening them.

Question 8 – Referencing Information Given in the Assignment

Should we be citing the information given to us in the assignment outline? If we are using this info in our report should we cite it referencing the assignment sheet or looking to find the website that information was from and citing that?

It is always good practice to cite any information you are using in your report that was obtained from external sources.

With this in mind, it would be a good choice to cite any information taken from the assignment outline that is not common knowledge.

To do so, it is acceptable to cite the assignment outline itself, rather than the websites the information was from.

The assignment outline is an unconventional type of source to cite, so we completely acknowledge that it may be challenging to find a conclusive IEEE format to use.

Don't worry too much, but do be sure to include as much information about the source as possible.

Don't forget that you must also cite, **at minimum, one journal article in Question 1.**

Question 9 – Required Number of Significant Figures

Are we rounding to 4 significant figures the entire time during our calculations (such as in our tables or the equation for the line of best fit), or just for the final answers?

If not told otherwise, you should round to 4 significant figures for all numerical answers, including those in tables/ equations for the line of best fit.

That being said, in certain cases the assignment instructions do ask you to round to a different number of significant answers (e.g. Question 1 Step 1), so in those cases you should obviously not round to 4 significant figures. Be sure to review the instructions carefully!

Question 10 – Should the Regression Line Be Forced Through the Origin

When I am making my residuals and residual plot, should I assume this point passes through origin (assuming it equals 0) or be specific and not check the box “passing through origin”?

Good question! In this case, I would not recommend “forcing” your graph to pass through the origin.

As to why, I will refer you to pg.13 3. II. of the assignment instructions which states: “Discuss the significance of the y-intercept, v_i . What should this intercept be if there was no measurement error?”

Not forcing the intercept through the origin will allow you to make your own conclusions about the y-intercept generated from your data, its accuracy/precision, and the measurement error.