

**The University of Sydney
School of Civil Engineering
Civil 1810/9810 –
Assignment 2 (30 Marks)**

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Assignment Project files*

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Assignment 2 -Part A

Design and construction professionals often focus on developing and improving the design of temporary structures (such as scaffolding systems and concrete form work). This is done to enhance the quality and structural integrity of the systems, while prioritising the safety of those using them. In a typical construction site, surveyors may use equipment such as: total stations, theodolites, 3-D scanners, and digital levels.

Requirements for the assignment:

Write a technical memo elaborating on the application (step-by-step procedure) of surveying techniques needed to install temporary structures on a construction site properly. Focus on the tasks that need to be undertaken to ensure temporary structures are installed appropriately (Keep in mind what the purpose of temporary structures is). Ensure that your memo focuses on surveying techniques' role in installing temporary structures.

Assignment Project Exam Help

Consider the following rubric when you're writing your assignment:

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Item	Explanation	Suggested Mark
Introduction	<i>Provide a short explanation on the application of surveying instruments to determine the correct location of temporary structures (such as scaffolding and form work) in different construction scenarios.</i>	2 marks
Main body	<i>You may select a particular case study to help you with this (e.g. a building, a bridge, a tunnel, etc...). It is suggested to use the construction stage of the project, as this is when temporary structures are used the most. Hint: You may discuss</i>	5 marks

	about finding bearing angles and distances using surveying equipment for the purpose of connecting temporary structure to the main building. (But do not limit your discussion to this point)	
Technical sketches	Present technical drawings to support the points made in the main body. You must use either AUTOCAD or REVIT for this section.	5 Marks
Conclusions and future technology	Write a concluding paragraph summarising your general understanding and provide a couple of sentences about how future surveying techniques might change the way temporary structures are installed and designed (specially how they would improve their quality and safety).	3 marks
Overall presentation	Ensure you write a clean and neat report. Format it appropriately and ensure it is not a hard document to read.	2 extra bonus marks

Overall,

You just need to explain how you can determine the location of the temporary structures on the site in order that the temporary structures can be installed accurately.

Assignment 2 -Part B

Based on the field work activities that we have done from week 7 to week 11, please provide a field report which focuses on the factual details of a project case. It should cover the circumstances and contributing factors that help us understand how theory applies to real-world scenarios. Below are the main steps you will need in order to effectively write your field report:

1. Define the objective(s) of the field report (Maximum 300 words).

Clearly state the purpose of each of the field work activities that you have carried out. This will help you determine the focus of the report and should ensure that you provide the information that's needed. Your field report should also define the nature of your contribution, the setting of your observations, and the methods used to gather your main data (4 Marks)

2. Conduct a field observation (Maximum 600 words).

- Explain how you have taken measurements and collected information from different activities using different instruments.
- Demonstrate some simple analysis that you have done in your field work activities (Remote students can follow and assume similar questions from the tutorial questions).
- Provide and insert some photo evidence of the observed items. Remote students should take screenshots from the fieldwork videos published on canvas. (7 Marks)

3. Summarize your findings (Maximum 300 words).

Explain what you have found and show that you understand the purpose of the survey and field work activities. (4 Marks).

Special instructions for remote students:

- Remote students should write the report pretending they conducted the physical fieldwork activities. The fieldwork videos on canvas are a significant resource to substitute the physical fieldwork, for the purposes of this assignment.
- Mention that you're a remote student in the final submission.