

Genre Unit 1 FIELD OBSERVATION MEMORANDUM

What is a Field Observation Memorandum (FOM)? Why do engineers use them?

Memoranda are used to convey engineering and technical information on a specific subject or design element. A Field Observation Memorandum reports and discusses observations from a visit to a specific site. Memoranda differ from reports in that they are usually short (1-4 pages) and focused on one particular subject. Typically, the audience for a memorandum is familiar with the project and has requested specific information. In some cases, memoranda are being replaced by emails. However, the information that is conveyed, particularly for a site visit, is the same.

Your instructor will most likely have you use the FOM to report on a class field trip, office visit, or site visit. In this context, your FOM exercise will differ somewhat from the writing of a professional engineer, but you will still get practice with important writing skills for the profession. The following table shows how the two contexts are related.

	University Course Assignment	Document in Engineering Practice
Name of document	Field Observation Memorandum	Site Visit Observation Memorandum Field Observation Memorandum Field Report
Purpose	<ul style="list-style-type: none">• To document your observations and learning in class field trips• To provide recommendations for the field trip in the future or feedback to the hosts	<ul style="list-style-type: none">• To provide accurate and thorough documentation of pertinent observations at a project site, serving as the firm's or agency's "eyes in the field"• To document pertinent discussions with site personnel• To document issues and provide recommendations for the project
Audience	<ul style="list-style-type: none">• Instructor for the course• Yourself (if you later need to refresh your memory)• Field trip host (potentially)	<ul style="list-style-type: none">• Project manager, department manager or principal of a firm• The client• Regulatory authorities (potentially)• Attorneys, judges, juries (potentially)

	University Course Assignment	Engineering Practice Document
Typical content & organization	<ul style="list-style-type: none"> • Has a memo heading specifying addressee(s), writer, date, subject, date • Opens with a concise statement of context and purpose • Contains a main body of text divided into Observations and Discussion • Often uses chronological organization for observations (what was observed first, second, etc.), but may need to follow other organization for greater coherence • Closes with reflections on learning and recommendations for the trip 	<ul style="list-style-type: none"> • Has a memo heading specifying addressee(s), writer(s), subject, date, and project name and number. Some organizations may include other information (e.g. arrival and departure time, weather). • Opens with a concise statement of context and purpose • Contains a main body where observations (or test results) are clearly distinct from analysis, discussion, and recommendations. Exact organization may vary with a firm or agency's template. • Usually has chronological ordering for observations • Concludes with a summary statement that addresses the reason for the site visit. If observing construction, concludes with a definitive statement concerning whether contractor was performing work consistent with recommendations. • Often closes with an offer to answer any additional questions
Formatting	<ul style="list-style-type: none"> • Uses headings, header/footer, font, margins, and other formatting as specified by the instructor 	<ul style="list-style-type: none"> • Uses formatting specified by the firm or agency. May use a table, but most use a memo header similar to course assignment.

What is the content and organization for Field Observation Memoranda?

Professional engineers use templates developed by their firms or agencies. Such templates make it easy for the engineer to cover the required information and follow the expected organization. The following organization is typical. Your instructor may provide you a specific template for your assignment. If so, use it! If not, you can follow the organization presented below.

Memo Heading:

The FOM uses a typical memorandum heading. It identifies who the memorandum is written to (TO), who prepared it (FROM), when it was prepared (DATE), and what topic it covers (SUBJECT). The subject line is a short descriptive title so the reader can ascertain the subject matter quickly. The dateline tells when the document was actually written and may differ from the field trip date. In some cases it is appropriate to copy the memo to others on a team, and they are then identified on the CC line.

Opening Paragraph:

The opening paragraph concisely states the context (who did what, when, where, and why), the purpose of the memo and an overview of its content. It helps clarify why your audience should continue reading the document. This introductory paragraph is typically about 4-7 sentences. It does not have a heading at the top.

Main Body:

The next part of the memo conveys the essential information. You need to cover your observations and then some discussion of them. These two parts are in separate sections because, for professional engineering, it is important to distinguish between what you observed and what you interpret, analyze, or conclude from those observations. Use the headings “Observations” and “Discussion” for the two sections. Do not mix discussion into your observations or provide new observations in the discussion.

Observations

In this section, cover the observations made at the site and information that was presented by the host of the tour. You cannot cover every detail, but you should not omit major points from the tour. The following are possible observations to include, but you must decide what observations are most relevant for each tour:

- If you visited an office, what did the engineers tell you about the work that they do? What were you told about the daily work regime on a normal work day (office time versus out on a project)?
- Describe the work environment and surroundings.
- Identify some of the sustainability or safety practices you observed at the site you toured.
- According to the host, what are some of the skills or attributes needed to function as a successful civil or environmental engineer at this site?
- If you visited a project site, what did the host explain about the role of civil and environmental engineers on this project? How do they interact with other personnel?
- What were some of the challenges that were identified by the engineers working at this site?

Discussion

In this section, reflect on the observations you made. Focus on two or three ideas related to your trip and discuss their importance, interpret what they mean for the profession or for you, or make connections between them. (In this section most professional site visit memos would discuss whether observations were consistent with plans and specifications and would present recommendations for follow-up. However, your specific discussion points will depend upon the specific assignment you were given.) Some ideas for reflections are below, but you must decide what is most relevant for your assignment, each trip, and your learning:

- What themes about engineering ran through the information in the trip or visit?
- Did the trip or visit increase your desire to complete your engineering degree? Why or why not?
- Did the information help you identify areas or subdisciplines of engineering that appeal to you?
- How do your observations connect to the role of engineering in society or affect your understanding of sustainability?
- What new things did you learn about the ethical standards of engineers, about professional standards, or about communication skills?

Conclusion:

The conclusion is the last section of the memorandum. Your audience has absorbed all of the content in the main body, so the closing statement should succinctly summarize your site tour and your overall learning. It might also include a recommendation for improving the trip in the future or information that you would like to learn more about. Use the heading “Conclusion” for this section.

Remember that conclusions are *derived* from the data (your observations) and discussion. The conclusion section should NOT introduce new data, but rather draw on the information that you present in the earlier sections.

Attachments:

A list of attachments is provided at the bottom of the memorandum. Attachments could be photographs of the site, site drawings, a company brochure, or another document related to the site visit. If you have no attachments, do not use an "Attachments" line.

What is the formatting for Field Observation Memoranda?

Professional engineers have to follow formatting guidelines and so do you. The templates of firms and agencies will include the font style, font size, style for headings, and other details. However, formatting may have to be changed to meet certain clients' requirements. In the same way, students have to adapt their formatting to different instructors' requirements. If your instructor gives you a template, use it! Otherwise, typical formatting includes 1-inch margins all around and 10-12 point font (depending on the font style).

Evaluating your FOM

You can use the following table to evaluate your FOM. If your instructor has provided you with a specific rubric for evaluating your FOM, you should use that instead.

Element	Characteristics of a good FOM
1. Content	<ul style="list-style-type: none"> • Clearly states purpose of memo and purpose of visit • Provides appropriate context • Reflects careful observation • Develops focused discussion of a small number of points • Includes specific details • Is concise and contains no irrelevant information • Is factually accurate • Exhibits thoughtful reflection
2. Organization	<ul style="list-style-type: none"> • Follows required sequencing of information • Provides logical flow of information within paragraphs and between paragraphs • Maintains the focus of each section
3. Vocabulary & Grammar	<ul style="list-style-type: none"> • Uses effective sentence structure to convey meaning • Uses standard written English • Uses accurate and precise words • Uses active voice + names or pronouns effectively
4. Mechanics – Formatting, Spelling, Punctuation, Capitalization	<ul style="list-style-type: none"> • Follows the formatting requirements • Uses standard written English conventions for spelling, punctuation, and capitalization • Contains no errors that distract from reading • Contains very few, if any, proofing errors

Practice

1. Compare the Unannotated Excellent Example and the Unannotated Weak Example FOMs. List the major strengths of the Excellent Example that make it effective and the weaknesses that need revision in the Weak Example.
2. Now look over the Annotated file for each example. Compare the evaluator's comments to your own. Add comments to your lists to identify any differences between what you noticed and the evaluator's comments (features you missed, features you liked that the evaluator disliked or vice versa, etc.).
3. For each element in the evaluation table above, explain specifically how the excellent example met the characteristics, and how the poor example failed to meet them.
4. Come to class ready to discuss the assignment, the examples, the differences in your and the evaluator's comments, and your evaluations of the examples against the evaluation table.

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