## University of Portland - Mechanical Engineering Engineering Technical Letters and Memoranda

EGR 270, Section\_\_\_\_Name:\_\_\_\_\_

Letter	$\checkmark$ = fine, good job N = needs to be improved on future documents X = unacceptable
	<b>Summary</b> - A concise paragraph with purpose and overview. The purpose of the letter or memo is clearly stated in the first sentence. Briefly gives overview of letter's content.
	<b>Background</b> - Provides context for the discussion and educates the reader so they can understand the discussion.
	<b>Results and Discussion</b> : Results, if concise, appear in the body of the letter/memo. If results are cumbersome (eg. several graphs), they are included as an attachment. The discussion briefly explains what was done (procedures) and discusses the results (explaining their significance). <u>All</u> figures and tables are referred to - whether they are in the body or attached.
	<b>Conclusions and Recommendations:</b> Based on the data, what do you conclude? If appropriate explain: potential errors, recommendations for improvements and/or what to do next. Superlatives and unsubstantiated claims are avoided (eg. avoid: <i>The results were good</i> – what defines "good"? Be specific when explaining errors (" <i>human errors were made</i> " is not explicit).
	Courteous Closing (contact information and signature included)
	<b>References</b> - Sufficient quantity and quality, and cited properly within the text. Numbers are in sequence. Bibliographic information is included as a footnote or endnote. Must have <u>at least</u> one reference but often more are required.
	Attachments: Listed at bottom of signed page. Numbered and labeled in order. Probable attachments are as follows:
	Attachment – Test Set-up: clear and self explanatory; include photos or sketches of set up and specimens, identify equipment (include ser. no.) and all other important information
	Attachment – Results (if only one or two small figures or tables are required, they may be embedded in the letter/memo).
	Attachment – Calculations (may not be required in all labs) are clear and self- explanatory, sources cited.
	Attachment – <u>Original</u> Data Sheet: self-explanatory, proper units, your name, date, etc. (should NOT be retyped)
	Letter/Memo Formatting Single spaced, no more than two pages (not including attachments), appropriate margins Properly addressed and contact information (to whom, date, etc.)

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Other features of a professional quality document:

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	<b>Formal writing:</b> Writing style should be formal and professional, not informal
	conversational. In technical letters and memos avoid excessive use of first person (I, us,
	we, our). Avoid first person totally in reports.
	<b>Proofing</b> : All documents must be free of spelling, punctuation and grammatical
	mistakes. Note that some words are not always flagged by spell checkers since they are
	correctly spelled but the wrong word: affect/effect, principal/principle, plain/plane,
	it's/its, your/you're, to/too, etc.
	Paragraph structure: Paragraphs contain a central thought (thesis) and as such they
	typically contain four to six sentences supporting the thesis (generally, not a full half-
	page in length).
	Sentences: Clear, concise, complete, not fragmented, not run-on.
	<b>English:</b> Correct tense (work completed = past tense; work yet to be completed = future
	tense) clear pronoun reference, correct subject-verb agreement, etc.
	Capitalization: Except at the start of a sentence, do not capitalize "aluminum" "steel"
	"martensite" "pearlite" etc.
	Abbreviations: Avoid abbreviations: min., max (maximum), Jan. (January), OR
	(Oregon), etc.
	Date: write out the date: January 12, 2010, not 1/12/2010
	Overall: Accurate, complete, and clear content, logical flow of ideas with adequate
	development. Effective and correct use of English language, illustrations, references,
	data analysis and presentation. Effective professional quality communication.
	<b>PREVIOUS WORK</b> – attach all previous graded technical letters from this class.

For help with writing, please consider the following resources: University of Portland Writing Center (ext 8157); *Writing for Engineers* (booklet); links from the Mechanical Engineering Student Reference Materials web page:

(<u>http://faculty.up.edu/lulay/MEStudentPage/ME-Student-Page.htm</u>); and various books on writing available in the library.

Put a check mark to the left of the dashed line above. The graders will place a check (or not) to the right side of the dashed lines.