Checklist for CHEN 3600 Technical Memo Reports

Version 3: February 9, 2009

**All students submitting Technical Memo Reports must complete and turn in a copy of current checklist at the time the assignment is turned in. Do not attach this checklist to the report (by stapling). No work will be graded without a signed checklist where all items are checked. If your report does not correspond to the statements provided on the checklist, your report will be returned for revision with a 10% deduction for each item not meeting published departmental formats.**

Name (Print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Assignment: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*I acknowledge that the information provided below is accurate and correct.*

**Proofreading**

* The work I am submitting with this checklist reflects my “best effort”
* I have re-read the “How to Proofread” article immediately before proofreading my report.
  + Amount of time spent re-reading the article: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* I have carefully proofread this report reflecting carefully on the issues discussed in the “How to Proofread” article.
  + Amount of time spent proofreading the report: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* I have done my proofreading from a hardcopy of my report.

*You must submit the original hardcopy draft report showing your “markups” with the word “DRAFT” shown at the top of the first page of the report. Turn in the “draft” and your “final report” at the same time but keep them as separate documents. Do not email the “draft” to the instructor.*

* I have “read my report aloud” slowly using a pencil or finger to keep my place. I have read and reread passages which seem to have problems until I am satisfied that the intended audience will understand each and every sentence.
* I have marked issues and problems on my draft report and completed all proofreading before correcting the draft version on the computer.
* I have prepared this document keeping in mind the needs and expectations of the intended reader.

**General**

* I have written this report keeping in mind the intended audience.
* Properly stapled
* Initialed
* Proper pagination (including appended materials).
* Correct orientation of full page tables and figures.

**Grammar**

* There are no sentence fragments or other obvious sentence issues (duplicated word, etc.).
* There are no overly complex sentences that cannot be easily understood by the intended reader. Long sentences have been broken down into two or more short concise sentences or the content has been organized using “bullets” or “numbered lists”
* I have carefully reviewed all usages of pronouns and relational or qualifying phrases making sure there is no doubt about what they refer to. Words such as "it," "they," "these," "those," "this," and "that," have clear references to the subject of the preceding sentence.
* I have correctly employed the third-person (do not use first or second-person in technical or scientific papers).

**Example: When you open your paper:**

**Incorrect:** In this paper, we will examine the two theoretical models of Piaget and Allport.

**Correct:** In this paper, the theoretical models of Piaget and Allport will be examined.

**Example: When explaining a theoretical perspective of a theorist:**

**Incorrect:** A basic drive according to George Kelly's perspective is that each of us tries to understand the world and we do so in many different ways.

or

A basic drive according to George Kelly's perspective is that you try to understand the world and you do so in many different ways.

**Correct:** A basic drive according to George Kelly's perspective is that people try to understand the world and they do so in many different ways.

**Example: When you are stating an opinion:**

**Incorrect:** I think that he would agree with the assumption that the two are closely related. I think that Jung would be able to incorporate each of the personality traits of low self-esteem into his psychological types.

**Correct:** Jung would agree with the assumption that the two are closely related. He would be able to incorporate each of the personality traits of low self-esteem into his psychological types.

* I have correctly used commas in this report.
  + <http://www.io.com/~hcexres/textbook/gram1.html>
* The report is free from common grammar, usage, capitalization and spelling errors.
  + <http://www.io.com/~hcexres/textbook/gram2.html>

**Organization**

* I have provided appropriate sections and placed the correct information in those sections.

Executive Summary Issues:

* The *Executive Summary* provided is a synopsis (concise review) of the essential information. The *intended reader* should only have to read the *Executive Summary*section to gain an understanding of the nature of the work performed and obtain the essential information.
* The *Executive Summary* is independent of the remainder of the report. Do not refer to tables, figures, or equations presented in the main body of the report. Similarly, do not refer to information presented in the *Executive Summary* in the main body of the report. Do not refer to any resource that the reader of the ES will not necessarily have access to (the assignment sheet, the report itself, etc.)
* The three main issues have been covered in the Executive Summary
  + Introduction of the problem or issue being considered (what was studied)
  + Discussion of method or approach taken to solve the problem or issue (how was the problem approached)
  + Listing of principle finding and results (what was learned).
* The *Executive Summary* does not attempt to present theory or other excessively detailed information. (The *Executive Summary* of a 50 page report might be less than one page in length.)
* The *Executive Summary* was written after the report itself.

Introduction (or Purpose) Issues:

* I have employed either the term *Introduction* or the term *Purpose*.
* Whereas the *Executive Summary* summarizes the whole report, the *Introduction* or *Purpose* of a technical memo identifies the subject (what was studied), the purpose (why was this performed), and the plan of development of the report (how was the problem approached). Together, these acquaint the reader with the problem you are setting out to solve.
* The Introduction does not provide detailed information about how the problem was approached (This belongs in the *Theory and Analysis* section).
* The *Introduction* provides the reader with all necessary background information to understand the other sections of the report. For example:
  + Defining the terms used in stating the subject
  + Providing background information such as the history of the subject.
* The *Introduction* cites the source of the assignment and provides a copy of this information if available in printed format. In the case of orally presented assignments, the *Introduction* cites the general requirements, individuals involved, date of communication, etc.
* The *Introduction* provided does not merely “fill space” with sweeping statements that are unrelated to the specific purpose of the report

Theory and Analysis Issues:

* The material presented in this section proceeds in a step-by-step logical format. The general organization is:
  + A brief synopsis of the fundamental theory that is most relevant to the problem
  + Presentation of the appropriate equations and assumptions
  + Methods used to analyze data which was developed
  + Identification of all tools used to conduct the inventigation (i.e., software developed, spreadsheets employed, etc). Specific citations should allow a clear “audit trail” to software employed (i.e., where can the specific software or program be located).
* In the case of experimental work it should contain an overview of the experimental procedures performed *and* the analytical procedures used to process the experimental data.
* The *Theory* section does not provide any results or discuss results.

Results and Discussion Issues:

* This section is the most important part of your report. The information presented here clearly addresses the needs of the audience and clearly explains their significance.
* If appropriate, an error analysis and discussion of the validity of the results will also belong in this section.
* To aid the intended audience, the *Results and Discussion* section has been broken into subsections as necessary to provide clarity of the information presented.
* I have provided a summary of the primary numerical results (i.e., bottom-line) and answered all questions posed in the assignment.
* I have used tables and/or graphs as appropriate.
* I have put items of data not immediately relevant or essential to the discussion of results in attachments (in the *Appendices*).

Conclusions and Recommendations Issues:

* In this section I have *summarized* the major results and finding and drawn appropriate conclusions. These conclusions do not belong in the *Results and Discussion* section.
* I have provided no new data (or information) in this section. All information cited should have been developed and presented in the *Results and Discussion* section.
* The following topics might be appropriate to develop in this section:
* Present an interpretation of the data – *what do the results mean in light of the problem being investigated?*
* Discuss the sources and relative magnitude of any significant errors.
* Present a prioritized list of actions to be taken and recommendations.

**Figures**

* Figures are centered on the page.
* Figures are of an appropriate size.
* Figures are properly captioned (capitalization, completeness, etc).
* Figures are properly referred to with “Figure” and “Fig.” etc.
* Backgrounds selected for figures do not obscure the data presented in the figure.
* Lines, data points, and backgrounds are appropriately selected if the report were reproduced using “black and white” copier technology.
* I have employed the same font in the graphs and figures I have produced as employed in the report proper.

**Tables**

* Tables are centered on the page
* Tables are of an appropriate size
* Tables are properly captioned
* Tables are formatted in accordance with departmental format. Decimal alignment is employed for numerical data. The number of digits and significant figures appearing the “report tables” reflects engineering usage. This is not a requirement for material appearing in attachments.
* I have employed the same font in the tables I have produced as employed in the report proper.
* Items are presented with appropriate units
* Vertical lines dividing columns have been avoided. This can be accomplished using the “Borders and Shading” option. See examples in “About Tables” format specifications.
* I have used the appropriate number of digits in items reported in tables. I have included only a reasonable number of significant digits in tabulated data. Generally data should have the same “precision” or same number of “digits”.
* Each table is wholly on the page they start on (including the caption). Backfill text as necessary to achieve this. In the case of multi-page tables, I have started the table at the top of a new page, again, backfilling text to avoid white space.
* The tables column widths and overall table wide have been adjusted to remove extra white space. Columns should only be of a width necessary to contain the data provided. Do not span from margin to margin unless the table requires this much space.

**Equations & Numbers**

* Equations are centered on the page and numbered using a right adjusted number in parentheses.
* Equations employ symbols which are composed of a single character with appropriate subscripts or other distinguishing features (primes, overbars, superscripts, etc).
* The symbols employed in equations are either previously defined or are defined immediately after the presentation of the equation.
* Equations are properly referred to with “Equation” and “Eq.” etc.
* Equations, numbers and units are composed without the use of punctuation such as “\*”, “x”, “^”. Numbers are written as 1.3x103 and not 1.3E03.
* Numbers are presented with appropriate units. Unit abbreviations are employed. (Units are not written out, e.g., 1 atm not 1 atmosphere)

**Citations**

* Sources of data are properly cited in the report text and in tables and figures.
* A “reference section” is provided to fully describe all citations.
* I have provided a citation and copy of the original assignment.