

## Project Memos Requirements, ME 481

**Overall:** Three memos are required in ME 481 and tentatively none are required in ME 482 (for projects that are continued from ME 481). They are to be one to two pages plus attachments; in standard memo format is required (To, From, Date, Ref – initialed by all team members, etc.). Provide hardcopies to instructor and faculty advisor, soft copy to industrial advisors.

**Summary** - Objective and overview. Within the first two sentences, the purpose of the memo and project are clearly stated. The important recommendations and/or conclusions are summarized.

**Background** - Provides context for the discussion and educates the reader so they can understand the discussion.

**Discussion** - May include a brief description of methodology, relevant findings, interpretation of data, and other significant items. Refer and discuss photographs, figures, tables, etc. that are in the attachments. Figures, photos, etc. may be very effective communication tools – use them well.

**Conclusions and Recommendations** – Recapitulate the primary results and their meaning, recommend future work or action.

**Courteous Closing** (Includes lead engineer’s contact information)

**References** - Should be of sufficient quantity and quality, and cited properly within the text. Bibliographic information is included as a footnote or endnote. (Note that “zero” is not a sufficient quantity).

**List of attachments** – a list of attachments is to be included. This may be on a second page if there is insufficient space on the first page.

**Attachments** – required attachments vary between the memos (see below)

### Writing Quality

Format: proper use of headings, standard margins, 12 point Times New Roman.

Writing: clear, complete, and concise with proper mechanics (spelling, punctuation, grammar, and paragraph and sentence structures)

Proper tense, formal writing

Follow NSPE *Code of Ethics* (no “puffery”, self-laudation, etc.)

**Pre-Plan memo:** A pre-plan memo is due early in the first semester. Much or all of this will be incorporated in the Project Plan. It is required so that faculty can assist in making sure the project is off to a good start and proceeding along appropriate paths. It should be one page maximum with limited attachments (sketches and tables). Include the following:

- Identify all team members and identify the lead for the first semester
- Concise, clear and complete description of the problem.
- Briefly discuss your first meeting with your industrial advisor including describing their anticipated level of support.
- Criteria tables (with 5-10 criteria that define the finished product) as attachment if appropriate
- Bibliographic information of at least two useful professional references.
- Five to 10 major milestones for the project

- Description of the probable finished product; what is it, what will it do, how will it be fabricated (if it that is the plan), etc. Sketches must be included (as an attachment if needed).

**Prototype Demonstration Memo:** the purpose of creating a prototype is to help the team resolve design issues; the team should learn from the prototyping activity. Hopefully, the team will learn how to overcome major concerns identified in the planning phase such as fabrication or functional problems. The memo should reflect this. Attachments:

- Properly captioned photographs of the prototype
- Completed Design Decision Document based off of a decision made from the prototype work. (see ME401 notes, or ask instructor for information about DDD's)
- Other attachments may be included such as preliminary test data or other relevant information.

**Status Report Memo:** Teams are to submit a two-page memo (maximum, plus attachments) documenting their design work for the first semester. At the end of the memo include references and list of attachments (these maybe on a third page). Minimum attachments:

- Criteria table (updated from original if changes have been made) and milestones (completed and to be completed next semester – updated if changed from original)
- Photographs and figures (properly captioned)
- At least one significant Design Decision Document per student (***not*** the DDD from the demonstration memo). The decision should be based on data generated from testing and/or analysis conducted this semester (obviously, include the data etc. as part of the DDD). Include the name of the individual primarily responsible for the DDD.
- At least one engineering drawing (detail or assembly) per student that meets drawing standards (see ME481 web page for “drawing standards”). Include the name of the individual primarily responsible for the drawing.
- A brief discussion of at least one engineering standard that was or will be used in the project (what is the standard, how will it be used).
- Action Item log (to be maintained throughout the project) – may be hand generated or not

Along with the memo, attach or include previously submitted work:

- Project Plan
- The prototype demonstration memo

**Miscellaneous comments regarding memo's (historical problems to avoid):**

12 point Times New Roman font is ***required*** along with standard margins.

Memo's should have a header (University of P., Donald P. Shiley School...etc.)

Have references and cite them. Include references bibliographies and a list of attachments at the end of the memo.

For “landscape” figures – remember, the *top* goes to the *left* side of the page.

Zeros go before decimal, and proper units: 0.8 inch, not .8 inch

*Continued on next page...*

*The title block should **not** be like this:*

DATE: 7/4/2013  
TO: Dr. U. Instructor  
CC: Dr. F. Advisor, Ms. I. Advisor  
FROM: list-of-students, *oops forgot to initial*  
SUBJECT: Status Memo, ME481

*But more like this, including a meaningful SUBJECT:*

DATE: July 4, 2013  
TO: Dr. U. Instructor  
CC: Dr. F. Advisor  
Ms. I. Advisor  
FROM list-of-students and *initialed*  
SUBJECT: Status Memo, HVAC System a Tractor