

Web-Based Documentation Guidelines AME 40463

Basic Requirements (as stated by the Course Handout):

Each group will develop and regularly update a group web site. The site, as minimum, will include:

- Group name
- Group members and contact information
- Abstract (*Must be present by Draft Submission*)
- Executive Summary (*Must be present by Draft Submission*)
- Individual Trade Studies (*Must be present by Draft Submission*)
- Weekly Preliminary Design Reviews
- Weekly Task Tracking Summaries and Project Budget information
- Other information deemed appropriate by the group to document their design and its evolution
- **Added Requirement: At the bottom of the main page have a short bulleted list of recent changes made to the website (within the past week).**

Ex. -9/4/06 Created Main Page and Navigation Bar

-9/6/06 Created Team Subpage and Content

This site should provide the basis for the formal, web-based documentation of this product development project. The web site should be suitable for public viewing on **19 Sept.** Great care should be exercised to make sure the site and any links are professional in content and presentation. (Electronic submission)

Overview:

The websites that you create this semester are intended to document your project and its development. There will be a great deal of information stored on your website, including trade studies, weekly PDRs and virtual models, to name a few. **(NOTE: All linked documents should be in PDF format)** Therefore, the main focus of the website should be on its organization and the presentation of information. It is still important to make your website presentable in terms of aesthetics, in case you would like to use it in future job interviews, etc., however you are not expected to be expert web-designers.

Getting Started:

Attached to this handout is the Fall 2005 *Team Concept Design Documentation Evaluation Form*. This will provide you with a basis for the assessment of your websites. This rubric outlines the appropriate information required for the past websites and how it was assessed. **ALSO**, a carefully review of this document will provide you with ideas for how your engineering rationale will be judged through the documentation. Hence, you

should keep these ideas in mind as you progress through the design process. The rubric for assessing this semester's websites will be finalized and given to you by **October 1st**.

Website Organization:

One of the best ways to gain ideas about how to present and organize your websites is to look at the work of last year's students. The websites from last fall are located at:

http://www.nd.edu/~batill/www.ame30362s06/AME40463_project_web_sites.htm

Many of you have previously reviewed these sites as part of the Spring 2006 AME 30362 Design Methodology course. I've compiled lists of good practices and suggestions from your feedback on the websites.

Good Practices:

- Select an easy to read font and make it large enough.
- Develop a clean and easy to follow layout. Too many "flashy" features may cause more confusion than add value.
- A navigation bar on the left column of the page is a useful way of breaking down the website content into logical elements.
- A clear mission statement/overview on the homepage of the website helps to give readers an idea of the context of the project.
- Make your site easy to navigate. It is easy to get lost with multiple layers of sub-pages. Remember, if it takes YOU time to locate a piece of information, your readers will have much more difficulty.
- Include links to get back to previous pages. Do not allow the user to get stranded on a subpage.

Suggestions:

- Being consistent can be advantageous. Changing backgrounds/fonts between pages can be distracting and reduce the readability of your site. However, plan accordingly if you choose an altering scheme.
- Make sure that your site is compatible with multiple web browsers (ie. Internet Explorer, Mozilla, etc.).
- When linking documents/pictures/movies make sure your links point to the desired file!
- Make sure your links work!! Remove Dead Links!!
- Avoid unnecessary features such as background music. This is not necessary and not recommended.
- Do not password protect portions of the website.
- Make sure that the pictures you insert do not overlap surrounding text!

Software:

The following is a list of a few potential Software Packages out which you may find useful in creating your website:

- Microsoft® Word
- Dreamweaver
- Google Page Creator
- Web Page Plus
- Web Page Maker
- Web Studio
- Web Easy Professional

It is not necessary to purchase any software to create your website. Many of the groups from last year used Microsoft® Word's Web Page Wizard to create their sites. This utility is very easy to use and makes the creation of a website as easy as writing a report.

Comments:

Ideally your website should be constructed in a manner in which each segment of your site can be printed out and compiled into a final document which represents your semester's work. The amount of information which needs to be compiled on this will not be easy to organize. You may need to reorganize your website several times throughout the semester if you do not think carefully about how to categorize the information.

Additional Information/Links:

Information on some of the listed website creation utilities can be found at:

<http://website-creation-software-review.toptenreviews.com/>

Basic Tutorials for creating Web Pages using Word or Dreamweaver:

<http://depts.washington.edu/trio/train/howto/page/editors/index.shtml>

Various tutorials for the HTML for users of all levels:

<http://www.pagetutor.com/>

<http://www.websitetips.com/>

<http://www.unplug.com/great/>

AME40463 : Team Concept Design Documentation Evaluation Form

Team: _____

Total: _____

Grading Summary (Max: 190 pts - Draft Version)

- | | |
|---|---------------|
| 1. Abstract (Max: 20 pts) | Rating: _____ |
| 2. Project Design Executive Summary (Max: 60 pts) | Rating: _____ |
| 3. Project Design Supporting Information (Max: 30 pts) | Rating: _____ |
| 4. Supporting Figures and Graphics (Max: 35 pts) | Rating: _____ |
| 5. Animations, Videos and other Graphics (Max: 0 pts) | Rating: _____ |
| 6. Other Information (Max: 20 pts) | Rating: _____ |
| 7. Overall Presentation and Organization (Max: 25 pts) | Rating: _____ |
| 8. Sections to be added in Final Version: (Max: 55 pts) | Rating: _____ |

1. Abstract (Max Possible: 20 pts) Rating: _____

- a. Project Description (Max: 5 pts)
 - 0 - Not included
 - 2 - Vague description. More fluff than useful content, includes unrelated issues related to the course not the project.
 - 5 - Concise statement of the project scope and goals

- b. Primary outcome of development effort (i.e. Problem solved) (Max: 10 pts)
 - 0 - Not included
 - 4 - Some description of the features and operation of the product/system but not well organized or important features not explicitly identified. More fluff than useful content using only vague, qualitative terms.
 - 7 - Description of the features and operation of the product/system but just a “list” without any effort to state the key design issues/features.
 - 10 - Concise description of the key technical issues/features associated with the product

- b. Abstract presentation (Max: 5 pts)
 - 0 - Exceeds 100 word limit
 - 3 - Some typos
 - 5 - Well presented and edited

2. Executive Summary (Max Possible: 60 pts) Rating: _____

- a. Product description (Max: 15 pts)
 - 0 - Not included
 - 4 - Some description of the features and operation of the product/system but not well organized or important features not explicitly identified. More fluff than useful content includes unrelated issues related to the project or course.
 - 8 - Description of the features and operation of the product/system and important features identified but ineffective justification as to why they are important

- 11 - Description of the proposed product - not simply the prototype - that specifically describes key features and effective justification as to why they are important
 - 15 - Concise description of the proposed product, its characteristics and operation - not simply the prototype - that specifically describes key features and effective justification as to why they are important and what was done to insure their effective integration into the design
- b. Design Relevance (Max: 10 pts)
- 0 - Not included
 - 3 - Some general, qualitative statements but not clearly identified as to their source or relative importance
 - 5 - Statements as to how the product/design would fit a need and some attention to the competition
 - 7 - Description of how the product/design would fit a need and some attention to the competition with specific evidence (data) that the need or relevance was the identified with more than just the design group's opinions.
 - 10 - Description of how the product/design would fit a need and some attention to the competition with specific evidence (data) that the need or relevance was the identified with more than just the design group's opinions.
- c. Design Process Used (Max: 10 pts)
- 0 - Not included
 - 3 - More a description of the course than the process used to develop the design
 - 5 - Statements of the process used and key steps and decision points in the process
 - 7 - Statements of the process used and key steps and decision points in the process. Information on how resources were allocated, schedules set and engineering methods used in the decision making process.
 - 10 - Concise and effective description of the process used and key steps and decision points in the process. Information on how resources were allocated, schedules set and engineering methods used in the decision making process.
- d. Options considered (Max: 5 pts)
- 0 - No competing concepts are described.
 - 3 - Sketches without labels or inconsistent presentation of competing options with little information on the characteristics or key features of the concepts.
 - 5 - Visually effective sketches, with appropriate features labeled, that illustrate principal features of each of the competing concepts. Tabular presentation of key features and engineering/technical challenges associated with each option.
- e. Solutions selected with rationale (Max: 10 pts)
- 0 - Not included
 - 3 - General description of the product/system that was selected for study.
 - 7 - Description of the product/system that was selected for study with key components or design elements/features specified.
 - 10 - Concise description of the product/system that was selected for study with key components or design elements/features specified. Specific statements of the anticipated strengths and possible weaknesses in the product.
- f. Implementation details (Max: 0 pts in draft)
- [Not included in DRAFT - Points Added to FINAL version]**
- 0 - A space holder should be included for the description of the prototype, its operation and lessons learned. This element of the documentation will be given credit in the final proposal grade. Please note that when this section is included, the Executive Summary must still comply with the total length requirements.
- g. Conclusions reached (Max: 0 pts in draft)

[Not included in DRAFT - Points Added to FINAL version]

- 0 - A space holder should be included for the final recommendations on the feasibility of the proposed product based upon the study conducted. This element of the documentation will be given credit in the final proposal grade. Please note that when this section is included, the Executive Summary must still comply with the total length requirements.

h. Format (Max: 10 pts)

- 0 - No readily identifiable sections - a single block of continuous text - exceeds 6 page limit.
- 5 - Meets length of text requirement, useful illustrations, sections clearly marked but contains some typos and not well presented.
- 10 - Well organized, prescribed length of text and professional (business quality format) and useful illustrations, sections clearly marked. Would serve as a stand-alone section to describe the project and product.

3. Project Design Supporting Information (Max Possible: 30 pts) Rating: _____

This section should include expanded information to provide details of the design as described in the Executive summary.

a. Operation of the system/product and user interfaces (Max: 15 pts)

- 0 - No information provided on the operation of the system/product.
- 5 - Description of the manner in which the system functions.
- 10 - Description of the manner in which the system functions and is operated.
- 15 - Concise description of the manner in which the system functions and is operated including off-design issues and safety concerns.

b. Engineering Trade Studies (Max: 10 pts)

- 0 - Not included
- 5 - Simply attached as independent links
- 10 - Organized in a consistent fashion with some brief overview of the role each played and the effects of each on the final design.

c. Preliminary Design Reviews (Max: 5 pts)

- 0 - Not included
- 3 - Some but not all attached as independent links
- 5 - All attached as independent links

d. CDR - Concept Design Reviews (Max: 0 pts - in draft)

[Not included in DRAFT - Points Added to FINAL version of documentation]

- 0 - A space holder should be included for the team's viewgraphs(slides) from the Critical Design Review. This element of the proposal will be given credit in the final proposal grade.

e. Task Tracking Summaries (Max: 0 pts - in draft)

[Not included in DRAFT - Points Added to FINAL version of documentation]

- 0 - A space holder should be included for the information regarding the allocation of time resources to the project. This element of the proposal will be given credit in the final proposal grade.

4. Supporting Figures and Graphics (CAD): (Max Possible: 35 pts) Rating: _____

a. Digital representation of component parts (Max: 15 pts)

- 0 - No individual parts included.
- 5 - CAD drawings of most parts but no specific organization of parts by number and no summary bill of materials

- 10 - Includes a master “bill of materials” that includes a listing of all parts and their sources. All in-house fabricated part drawings are included.
 - 15 - Includes a master “bill of materials” that includes an organized listing of all parts and their sources. Readily identifies all out-sourced components and parts fabricated from raw materials. All in-house fabricated part drawings included.
- b. Digital representation of important sub-assemblies (Max: 10 pts)
- 0 - No sub-assemblies included.
 - 5 - Simply a series of drawings without labels. Assemblies include all in-house designed components and some out-sources parts..
 - 10 - Assembly drawing include labels and readily illustrate the relationship between elements. Assemblies include all in-house designed components and all out-sources parts represented in a fashion that illustrates their proper external shapes and interfaces (detailed surface features on out-sourced parts are not required).
- c. Digital representation of complete product/system (Max: 10 pts)
- 0 - No complete assemblies included.
 - 5 - A single complete assembly drawing without labels.
 - 10 - A series of complete assembly drawings with useful labels that provides various perspectives on the product/system. Shaded or colored in an effective and visually appealing fashion appropriate for “marketing”.

5. Animations, videos or other graphics (Max Possible: 0 pts) Rating: _____
[Not included in DRAFT - Points Added to FINAL version of documentation]

- 0 - A space holder should be included for graphics or videos that illustrate the form and function of the proposed product . This element of the proposal will be given credit in the final proposal grade.

6. Other Information (Max Possible: 20 pts) Rating: _____

Other technical information deemed appropriate by the design team that they believe would enhance the understanding of the design or the project (Max: 0 pts)

- 0 - Not included
- 20 - Bonus points at the discretion of the reviewer

7. Overall Presentation and Organization (Max Possible: 25 pts) Rating: _____

- a. Organization (Max: 10 pts)
- 0 - No apparent attempt at providing a framework for the user
 - 3 - Some basic organization and structure but it varies from link to link.
 - 7 - Most of the site is well organized and most major sections have an introduction or some other element that assists the reader.
 - 10 - Entire site is well organized and each major section has an introduction.
- b. General impression of Graphics (Max: 5 pts)
- 0 - Inconsistent graphics and unclear figures.
 - 3 - Reasonable graphics, though not necessarily consistent through most of the documentation.
 - 5 - Consistent graphics through most of the site and all figures titled.
- c. Overall assessment of quality of written materials (Max: 10 pts)
- 0 - Poor proofreading, numerous typos, sections incomplete or mis-labeled.
 - 3 - Apparent lack proofreading and numerous typos.
 - 5 - Some proofreading apparent, many sections well written.
 - 10 - Concise, well written with attention to important details.

8. Sections to be added in Final Version (Max Possible: 55 pts) Rating: _____

Section 2.f : Implementation details (Max: 15 pts)

- 0 - Not included
- 5 - Simple statements regarding development of a prototype with only qualitative insight into lessons learned in developing the prototype
- 10 - Statements provided on the development of the prototype and its operation and impact on the proposed design but without any indication of key issues
- 15 - Concise description of influence of the development of the prototype and its operation and impact it had on the proposed design with specific indication of the key ways in which lessons-learned would influence the design

Section 2.g : Conclusions reached (Max: 10 pts)

- 0 - Not included
- 5 - Simple statements on the features and feasibility of proposed design
- 10 - Concise description of final proposed product and its “engineering” feasibility in the context of the intended purposes established for the project and the knowledge gained in the design process.

Section 3.d : CDR - Concept Design Reviews (Max: 10 pts)

- 0 - Not included
- 8 - Complete set of visuals from the CDR
- 10 - A complete set of visuals from the CDR and a paragraph describing comments or important questions addressed in preparation for or presentation of the CDR

Section 3.e : Task Tracking Summaries (Max: 10 pts)

- 0 - Not included
- 5 - Just raw weekly data included but without any summary of totals provided
- 10 - Weekly data summaries plus an effective project summary

Section 5 : Animations, videos or other graphics (Max: 10 pts)

- 0 - None
- 5 - Pictures of final prototype
- 10 - Pictures and video with supporting information that highlight operation and special features of the product