

Final Project Grading Criteria

Wednesday, March 13, 2013

200 Points Total Name _____

Sign this checklist and hand it in at the instructor's desk along with your drawings after the *Final Project Presentations*.

One objective for your Final Project, beyond providing an assessment reflecting your performance in this class, is to serve as a portfolio that can be demonstrated to potential employers. Therefore, when grading, your engineering drawings will not be marked up but will be graded using this checklist along with the other elements of your project. This graded packet along with your set of drawings will be available in the *Box* during the first 2 weeks of the next quarter or by other arrangements.

Grading for your Final Project will be as follows (200pts total):

Final Project Abstract, (up to 20pts total, 10%)

Final Project Peer Evaluation, (60pts total, 30%)

- Your score is determined by the average value of all of your peers' numerically scored values in the specific categories on their Project Presentation Peer Review Booklet.
- Comments are welcome but not graded.
- Exceptions follow:
 - If you give all 10s on every sheet or all 0s or any other number or even leave a sheet blank (demonstrating a lack of commitment to the task at hand) you will have your score reduced by some percentage. Please provide a fair assessment
- Time, 5 minutes, practice your presentation!
 - For each minute over or under points will be taken off

Final Project Design (80pts total, 40%). Determines the effort put into your project by measuring model complexity. There is an opportunity for extra credit for going beyond what is asked for in this section, up to 20% in each section. This extra credit also allows provides grading parity between different types of projects like those with high sketch complexity and a small assembly compared to those with lots of simple parts in a large assembly. Points off for underdefined sketches and non-whole unit dimensions.

- An average of 30 appropriate sketch relations, sketch geometry or dimensions for the 5 most complex parts (20pts) (excludes redundant dimensions and modified for equal and symmetric relations) and/or
- An average of 12 appropriate part features for the 5 most complex parts (20 pts) and/or
- An average of 8 appropriate parts in an assembly (20 pts)
- Send these files as a "Pack and Go..." zip file with the photo real image of your assembly that will be on your Cover sheet. A 20% penalty for each missing file and image.

Final Project Drawings, 5 drawings (10pts each, 40pts total, 20%). Four drawings will be graded, the best 2 part drawings plus the Cover Sheet and Exploded Assembly Drawing. Follow the grading criteria that have been used for drawings in this class.

- Opportunity for extra credit for going beyond what is asked for in this section, up to 20%.
- A 20% penalty for a missing or incomplete 5th drawing.
- A 20% penalty for printing during or after the presentations (print before class).
- Drawings include the following:

- Cover Sheet with a photo real image(s) of your assembly along with project name and designer and similar information.
- At least three part drawings of your choice (choose the more complex ones)
 - Include GD&T annotation and symbols when appropriate
- Exploded assembly drawing with a Bill of Materials, Balloons and Exploded Line Sketches
 - (very few or no dimensions on this sheet)
- Other drawings will be considered for special projects that lack an adequate amount of parts and for extra credit but only if it adds to the information attempting to be communicated or helps better explain how your project can be fabricated.
- Grading criteria for all drawings include:
 - B size printed in the lab, full size, gray scale, ANSI dimensioning standard, appropriate precision, appropriate sheet scale, views laid out with appropriate spacing and symmetry, color for Cover Sheet (1.5 pts each sheet)
 - Title Block items as described throughout the quarter
 - Logo (unique with company information), your name, part name, file name, company name, units of measure, dimensioning standard, confidentiality statement (filled in with your company name), drawn by and date (initials), checked by and date,... etc... (1.5 pts each sheet)
 - View titles properly placed on the Sheet Notes layer, CAPITALS, centered below and underlined (1 pt)
 - Cover Sheet drawing graded as follows:
 - Image(s) of the assembly or an important part, make this look attractive using various settings, angles, textures, scenes, image transparency and lights (4pts), project name and designer in large bold lettering (1pt each)
 - Part drawings graded as follows, every sheet contains the following:
 - Three standard views (ignore redundant views if appropriate), Isometric view with at least 2 auxiliary view(s) or detail views or section views of your choice and as many as needed for extra credit but only if it adds to the information attempting to be demonstrated with your project. Sheet metal projects will have a flat pattern in a view. (2 pts)
 - Various display states for the different views as appropriate, must show 4 out of 5 representations over the 3 sheets (1 pt)
 - Dimensions, complete, organized and visible on the Dimension layer (3 pts total)
 - At least 12 dimensions with 4 different types of tolerances, over the 3 sheets on the appropriate features on your parts (1 pt)
 - At least 3 Datums and 6 Feature Control Frames, over the 3 sheets, on the appropriate toleranced dimensions, features or surfaces referring to the datums, they need to make sense, use your guidebook. (2 pts)
 - Exploded assembly drawing graded as follows:
 - Isometric View, SWE
 - Bill of Materials, on the Sheet Notes layer, organized and neat, CAPITALS, numbers centered, text left justify, categories in order per previous assignments, must make sense (2 pts)
 - Balloons, circular split line, organized and visible on the Dimension layer (2 pts)
 - Explode Line Sketches, complete, organized, visible, lots of white space (2 pts)