EMCH 13: DESIGN PROJECT - Status Report

Do as a team: Set assignments and deadlines for the team, page 1. Find data for at least one material and the primary load, page 2. **Do individually:** Each team member is to individually design a component per page 3 and attach their contribution to pages 1 and 2.

Team: ____
Member(s): _____   _____

_____   _____

_____   _____

General task assignments: All members contribute information to the Leader and Worker.

Task (for insertion in report)	Task Leader (last name, I.)	Task Worker (last name, I.)	Deadline
Project Drawings/Bill of Matl's			
Methods			
Assumptions/Warnings			
References			
Materials Data Table			
Loads/Other Data			
Calculations Section			
Response to Peer Review			
Report assembly/submission			

Calculation tasks assignments: Both Leader and Worker sign off for each component.

Component	Task Leader (last name, I.)	Task Worker (last name, I.)	Deadline

Note: Leaders and workers cooperate. Both do the task and check each other. The leader is responsible for setting the timeline, initiating work, helping the worker, ensuring the deadline is met and communicating results to the team. The worker is responsible for the detailed work.

Data Sections

Materials Data Table
Column headings depend upon the class of material. For metals, use σ_Y, σ_{All}, τ_Y, τ_{All}, E, ν, and others as appropriate. Include units in the header. For Ref., insert a number and cite the reference below. Add a sample calculation for allowables of each different class of material and for other different quantities. NOTE: allowables are determined from limits of linearity, not ultimates.

Material	Ref						

Loads/other data (add a sheet if necessary)

Component _____ Name_____

Instructions (Follow this calculations format for your final report also. Do not type.)

1. Write the name of the component above. Then sketch its location within the structure.

2. Sketch a model and label it for each loading scenario. Show support conditions symbolically.

For each model, do steps 3 and 4 (add extra sheets as necessary):

3. Free-body diagram.

4. Analysis for a particular cross section (you may have more than one). Give materials, materials allowables; cite assumptions/warnings and key references used. Report anything new to the appropriate task leader/worker. Derive design equations from standard EMch 13 formulas. (Status only: in the final report, materials and other data will appear in the Data sections and need not be repeated in this section, but for this status report, provide all data used.)

5. Decision. Specify nominal sizes and other conclusions. Report to Calculations task leader/worker. Report anything new or changes to other appropriate task leaders/workers.

6. Sign Off. Both the task leader and task worker sign off after each decision. (Not for the Status Report.)