

IME 676. Aircraft Manufacturing and Assembly

HW 1

Read:

https://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/amt_airframe_handbook/media/ama_ch01.pdf

Answer the following questions. All have the same value.

- 1) Summarize the sections, include figures to illustrate your summary. The summary should be 2 to 3 pages, single line or handwritten with glued-in figures.
 - a. Major Structural Stresses
 - b. Fixed-Wing Fuselage
 - c. Wing Configurations
 - d. Wing Structures
 - e. Nacelles

Consider the following specific questions. Answer them, and cite the page in the reading from which you obtained the answer.

- 2) What fuselage type do you think a jet airliner uses? Explain the function of the different parts of this type of fuselage.
- 3) What are wing spars? Are these items similar to stringers, longerons, or uprights (bulkheads)?
- 4) Are nacelles made of solid metal walls or frame/skin walls like fuselage and wings?