

Introduction to Aircraft Systems: A Practical Perspective (Live Virtual Offering)

- **WHEN: Monday – Thursday, 19 – 22 July, 2021.** Class will be conducted in a morning and afternoon session each of the four days from 10:00 – 1:00 and 2:00 – 4:00 using MS Teams--all times are Eastern. Computers with an operating microphone and webcam are required. Additional guidance, including instructions for obtaining course materials (see below), will be provided.
- **COURSE DESCRIPTION and MATERIALS:** The aircraft is a collection of systems, a “collection” that must be successfully integrated for the aircraft to accomplish its mission. This 4-day virtual short course introduces the major systems—their purpose, how they operate (with theory), integration considerations, challenges, certification, and industry trends (including both military and civil designs). A group case study helps put the classroom learning in perspective. With clear learning objectives and packed full of examples, the course follows the outline below:

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| <ul style="list-style-type: none"> ● Introduction and Setting the Stage ● Powerplant – energy source for systems ● Fluid-Based Systems <ul style="list-style-type: none"> ● Fuel ● Hydraulics | } | 1 st Day | <ul style="list-style-type: none"> ● Fluid-Based Systems <ul style="list-style-type: none"> ● Pneumatics ● Environmental Systems ● Takeoff and Landing Systems ● Electrical Systems | } | 2 nd Day |
| <ul style="list-style-type: none"> ● Flight Control Systems ● Military Systems ● Avionics (Part 1) ● Group Case Study introduction | } | 3 rd Day | <ul style="list-style-type: none"> ● Avionics (Part 2) ● Group Case Study collaboration ● Group Case Study presentations ● Concluding Remarks | } | 4 th Day |

Each student is provided a set of course notes and a copy of “*Aviation Maintenance Technician Handbook-Airframe, Volumes 1 and 2.*” 2.0 Continuing Education Units (CEUs) are awarded.

- **WHO SHOULD ATTEND:** Anyone who can benefit from an understanding of the various systems on an aircraft -- their function, how they operate, and how they are integrated with the aircraft as a whole. Interestingly, a study of aircraft systems is not traditionally incorporated into an undergraduate (or graduate-level) aeronautics curriculum. Although written for a technical audience, a building-block approach is used -- no prior knowledge is assumed. Here are a few comments from recent offerings:
 - “Great way to ‘connect the dots’ for those working in sectors of aviation.” – Columbia, South Carolina
 - “Helps me to better understand how my specific system works with the other areas of the aircraft and the demands it places on the system.” – Ogden, Utah
 - “It was practical aeronautics! Simple and covered material clearly. The personal experience of the instructors added so much depth to the material.” – Dayton, Ohio
 - “Good level of knowledge without getting bogged down with technical details, a good overview that helps understand the ‘big picture.’” – North Charleston, South Carolina
 - “Technical expertise and laid-back approach created a relaxed but informative environment. No complaints!” - Oklahoma City, Oklahoma
- **COST, REGISTRATION, and CANCELLATION POLICY:** \$1450 (\$1400 if registered by June 21st), \$1375 for Federal Government employees -- Group discounts are available. For more information and to register, visit PracticalAero.com, contact Jellsworth@PracticalAero.com, or call (719) 659-7319. Substitutions may be made at any time. Cancellations must be received two weeks prior to course start date and are subject to a \$50 fee. If you must cancel within the two-week period, and do not have a substitute, you may forfeit the entire fee and are responsible for returning course materials to PAI at your own expense. Refunds of the registration fee (only) are issued if the course is canceled. **NOTE:** This course is an “open enrollment” course and must meet a minimum student count for the offering to be held. If the minimum count is not met, the course will be cancelled not later than two weeks prior to the course start date. Practical Aeronautics will not be responsible for any costs incurred by the student if the course is cancelled.