



Short Course Offering: *Introduction to Aircraft Systems: A Practical Perspective*

- **WHEN and WHERE:** 20-22 August 2019 (8:00 – 4:30 Tuesday and Wednesday, 8:00 – 12:00 Thursday) Location—The Ohio Aerospace Institute, 22800 Cedar Point Road, Brook Park, Ohio, near the NASA Glenn Research Center.
- **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 2.5 day 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 “field trip” to a local air park or museum will reinforce in-class discussions. With clear learning objectives and packed full of examples, the course follows the outline below:

<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● Pneumatics● Environmental Systems● Takeoff and Landing Systems	} 1 st Day	<ul style="list-style-type: none">● Electrical Systems● Ice Protection Systems● Flight Control Systems● Tour	} 2 nd Day
		<ul style="list-style-type: none">● Avionics● Case Study/Group Project● Concluding Remarks	} 3 rd Day (AM only)

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:
 - “I liked [the instructor’s] backgrounds and real life experiences they could share...and easy nature.”
 - “When you understand the whole it makes it easier to understand the smaller components.”
 - “As a [Liaison Engineer], I will work on all systems. This class is essential for new LE hires.”
 - “I loved the perspective from pilots.”
 - “The instructors are very knowledgeable—I couldn’t expect more.”
 - “I enjoyed the layout of each section going from history to theory to modern day trends. I learned a tremendous amount...”
 - “Good to understand the ‘why’ systems are there and how they work in the aircraft and interact with each other.”
 - “Understanding the complexity of systems integration helps fixing one part of the plane without impeding something else.”
- **COST, REGISTRATION, and CANCELLATION POLICY:** \$1350 (\$1250 if registered by July 30th), \$1215 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. 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 travel/lodging costs incurred by the student if the course is cancelled.