



AEROSPACE SHORT COURSES

2021



KU
LIFELONG
& PROFESSIONAL
EDUCATION

The University of Kansas

NOW AVAILABLE
Complete 2021 Schedule
New Online Courses



AEROSPACE SHORT COURSES

ORGANIZATIONS TRUST KU AEROSPACE SHORT COURSES

For more than forty years, aerospace organizations have looked to the University of Kansas Aerospace Short Course Program to deliver high-quality training. Now that same high-quality training can be delivered in person or online. Contact us today to find out how you and your team can benefit from training delivered directly to your organization:

- 50+ courses available
- Competitive pricing
- Flexible scheduling
- Maintain company confidentiality
- Multiple course delivery options



Contact us today for more information: professionalprograms@ku.edu

aeroshortcourses.ku.edu

ADVANCE YOUR KNOWLEDGE, SKILLS AND CAREER FROM WHEREVER YOU ARE.

We're actively working to develop new online learning opportunities so you can continue to meet your professional development goals. Now you can take advantage of high-quality and engaging live online Aerospace Short Courses – our highest-demand topics from instructors working in industry and academia.

Whether you want to register for a scheduled course offering or engage your entire team in online learning right from their desks, visit our Online Learning page at LPE.ku.edu/aero-online-courses for complete details.

NOW AVAILABLE ONLINE

Aircraft Icing: Meteorology, Protective Systems, Instrumentation – Page 13

Aircraft Structures: Analysis and Design – Page 15

Airplane Flight Dynamics – Page 15

Complex Electronic Hardware Development and DO-254 – Page 18

Electrical Wiring Interconnection System (EWIS) Safety Assessment – 25.1709 – Page 20

Electromagnetic Effects Aircraft Level Testing and FAA Requirements – Page 21

Flight Control and Hydraulic Systems – Page 23

Flight Testing Unmanned Aircraft Systems – Unique Challenges – Page 24

Operational Test and Evaluation: User-Centric Systems Testing – Page 29

System Safety Assessment for Commercial Aircraft Certification – Page 34

Features of online courses

- Learn the same content as the classroom-based course
- Most classes meet online 2-3 times per week
- Most classes are 4-5 weeks in duration
- Apply the concepts you are learning via exercises and group projects
- Interact with other working professionals from around the world

New courses are being added continuously – please continue to check LPE.ku.edu/aero-online-courses.

LEARNING IS ONGOING

Learn Online – New Courses

Now more Aerospace Short Courses are available online than ever before – for both individual and organization-based delivery. Visit our online learning page at LPE.ku.edu/aero-online-courses for complete details.

Interested in online course delivery at your organization? Contact us at professionalprograms@ku.edu and tell us more about your course needs.

Free Webinars

Visit LPE.ku.edu/aero-online to view a library of previously delivered webinars on a variety of aerospace topics and to register for any upcoming webinars.

Learn in the classroom

Each year, the KU Aerospace Short Course program brings groups of short courses to popular U.S. locations, including Seattle, Kansas City, San Diego and Orlando. Individual courses range from one-five days in length and are delivered in a traditional classroom setting. Learn face-to-face from industry expert instructors, enhanced by group discussions. Network with aerospace peers from around the globe.

See the complete course schedule on page 5 of this catalog.

Learn where you work

Your organization can realize substantial savings by bringing a short course directly to your workplace. This option is ideal for organizations that need to train 10 or more employees in a specific topic. Workplace training allows you to:

- Train more people for less
- Eliminate employee travel expenses and concerns
- Reduce employee time away from work
- Train when it fits your organization's schedule
- Maintain project confidentiality
- Train on the topics you need most
- Take advantage of flexible training options, including online

Only have a small group in your organization who need a specific course? Talk with us about how we can make that happen.

For more information on bringing a short course to your workplace, contact Marina Enclarde at 913-897-8781 or email professionalprograms@ku.edu

HISTORY OF AIRPLANE DESIGN WEBINAR SERIES **FREE for all participants!**

with Dr. Jan Roskam

Dr. Jan Roskam presents the *History of Airplane Design* webinar series profiling top aircraft design and production companies. Dr. Roskam is the Ackers Distinguished Professor Emeritus of Aerospace Engineering, University of Kansas, and founder of the KU Aerospace Short Course Program.

The Russian Airplane Manufacturers, Part I: Ilyushin, MIG, Yakolev and Beriev

April 21, 2021 • 11:00 a.m. – Noon CT

The Russian Airplane Manufacturers, Part II: Tupolev, Sukhoi and Antonov

May 12, 2021 • 11:00 a.m. – Noon CT

The Japanese Airplane Manufacturers: Kawanishi, Kawasaki, Mitsubishi, Nakajima and Kyushu

June 16, 2021 • 11:00 a.m. – Noon CT

A Mix of Airplane Manufacturers, Part I: SAAB, Embraer, Blohm & Voss, Fieseler, Mooney and Aero Commander

July 14, 2021 • 11:00 a.m. – Noon CT

A Mix of Airplane Manufacturers, Part II: Shorts, Saunders-Roe, Britten-Norman, Armstrong-Whitworth, Cirrus, Diamond, PZL and Pipistrel

Aug. 18 • 11:00 a.m. – Noon CT

MORE WAYS TO LEARN

Online Certificate in Process Instrumentation and Control

Learn the basics of process instrumentation and control, including identification and symbols, field instrumentation, control room requirements and project implementation.

Online Certificate in Process Control and Advanced Control Strategies

Gain understanding in advanced techniques such as identifying poor control, techniques for troubleshooting control problems and skills for optimizing your control loops.

Online Certificate in Process Engineering for Control Practitioners

Learn the basics of process engineering as it relates to instrumentation and control, including process engineering concepts and calculations and process discipline deliverables.

Online Certificate in Safety Instrumented Systems

Learn the different aspects of the Safety Instrumented System (SIS) life cycle in the standard ISA/IEC-61511. Students will learn about engineering requirements, design, analysis evaluation and maintenance of the systems.

Online Certificate in Maintenance Management

Learn maintenance management and leadership skills, including planning and scheduling maintenance and preventive and predictive maintenance.

Online Certificate in Computerized Maintenance Management System Implementation and Optimization

Develop your expertise in CMMS systems with this course, which covers basic and advanced features, benefits and development of system specifications based on your individual needs.

Reliability Engineering Certification and Maintenance Management Certification

Face-to-face classes delivered at the KU Edwards Campus in partnership with the Life Cycle Institute

Lean Six Sigma Green Belt Certification

Face-to-face and online five-day program prepares new Green Belts to lead projects and contribute to improving services and manufacturing. Delivered at the KU Edwards Campus and online.

Warehouse and Distribution Center Layout Seminar

Learn to reduce operating costs by improving warehouse processes and inventory control by optimizing layout, methods selection, space, and material handling.

Planning Lean Layouts with SLP

System Layout Planning (SLP) is recognized throughout the world as the most organized way to lay out a facility for efficient operation. This course will prepare you to lead layout projects using SLP and to achieve remarkable results in record time.

Learn more at LPE.ku.edu/tmo



LET OUR TEAM TRAIN YOUR TEAM

Do you need to train a group of employees in a specific topic? Realize substantial savings by bringing an aerospace short course directly to your organization.

Our clients include:

AeroTEC	Defense Acquisition Program Administration (DAPA)	National Transportation Safety Board (NTSB)
Airbus Group	Department of National Defence and the Canadian Armed Forces	New Zealand Defence Force (NZDF)
Aeronautical Radio, Incorporated (ARINC)	Embraer S.A.	Northrop Grumman Corporation
Air Methods/United Rotorcraft	European Aviation Safety Agency (EASA)	Parker Hannifin Corporation
Allegiant Travel Company	Federal Aviation Administration (FAA)	Pilatus Aircraft Ltd.
ASELSAN A.Ş.	Garmin International, Inc.	Pratt & Whitney
BAE Systems, plc	General Atomics Aeronautical Systems, Inc.	QinetiQ Group plc
Beechcraft Corporation	General Electric Aviation	Raytheon Company
Bell Helicopter Textron, Inc.	The Goodrich Corporation	Rolls-Royce
The Boeing Company	Gulfstream Aerospace Corporation	Samsung Techwin
Bombardier Aerospace	HeliOne	Saab Group
Brazilian Organization for the Development of Aircraft Certification (DCA-BR)	Honda Aircraft Company, LLC	Savunma Teknolojileri Muhendislik (STM)
Cathay Pacific	Honeywell Aerospace	Sierra Nevada Corporation (SNC)
Cessna Aircraft Company	Hong Kong Civil Aviation Department	Sikorsky Aircraft Corporation
Cirrus Aircraft	Icelandair	Singapore Technologies Aerospace (ST Aerospace)
Civil Aviation Administration of China (CAAC)	Insitu	Spirit AeroSystems, Inc.
Civil Aviation Authority of New Zealand	L-3 Communications	SR Technics
Collins Aerospace	Lockheed Martin	Taikoo (Xiamen) Aircraft Engineering Co., Ltd.
Commercial Aircraft Corporation of China (COMAC)	Lufthansa Technik AG	Transport Canada
Dassault Aviation	Lycoming Engines	U.S. Department of Defense (Air Force, Army, Navy and Coast Guard)
	NASA	
	National Aerospace Laboratory (NLR)	

Do you have questions about bringing a course to your organization? Reach out to us today for a no-cost, no-obligation proposal. Contact Marina Enclarde at 913-897-8781 or email professionalprograms@ku.edu.

2021 PUBLIC COURSE INFORMATION

Visit each program's website listed below for details on the course venue, accommodation options, course descriptions, registration information and other relevant information.

SEATTLE, WASHINGTON

DoubleTree by Hilton Seattle
Airport Southcenter
April 12-16, 2021
www.LPE.ku.edu/aero-seattle

KANSAS CITY AREA

KU Edwards Campus
Overland Park, Kansas
April 26-30, 2021
www.LPE.ku.edu/aero-kc

SAN DIEGO, CALIFORNIA

San Diego Marriott
Mission Valley
Week One:
September 6-10, 2021
Week Two:
September 13-17, 2021
www.LPE.ku.edu/aero-sandiego

ORLANDO, FLORIDA

B Resort
October 18-22, 2021
www.LPE.ku.edu/aero-orlando

Course Registration Fees

Class Length	Face-to-Face Course	Online Course
1-day class	\$895/\$945*	N/A
3-day class	\$1,895/\$1,995*	\$1,595/\$1,795*
4-day class	\$2,195/\$2,395*	\$1,795/\$1,995*
5-day class	\$2,495/ \$2,695*	\$1,995/\$2,195*

* Save up to **\$200** on the course registration fee when you register and pay at least 45 days in advance for face-to-face courses, and seven or more days in advance for online courses.

Lodging

A limited number of rooms will be available at the course venue or nearby hotel for attendees to book lodging at a discounted rate. For rate information and booking instructions, visit the program's website.

International Travelers

Are you planning to attend one of our courses in the United States but are not a U.S. citizen? Please visit www.travel.state.gov for visa and travel information.

DISCOUNTS

Early registration discount

Save up to \$200 on the course registration fee when you register and pay at least 45 days in advance for face-to-face courses, and seven or more days in advance for online courses.

★ U.S. Federal Employee discount

All courses in this catalog are available to U.S. federal employees at 10% off the registration fee. To receive the federal employee discount, you must enter the code FGVT116 on the registration form or during the online checkout process. Please note that you must validate your eligibility to receive this discount by entering your U.S. government email address (ending in .gov or .mil) on the registration form or when creating your online registration profile. This discount is available for both the early registration and regular registration fees.

Canada Department of National Defence Discount

Designated courses are available to Canada DND employees at 10% off the registration fee. Please contact the DND Procurement Authority (DAP 2-3) for details. Please note that you cannot register using our online system when requesting this discount. This discount is available for both the early registration and regular registration fees.

Netherlands Defence Academy Discount

All courses in this catalog are available to Netherlands Defence Academy employees at a discounted registration fee. Please contact the NDA Procurement and Contracting department for details. You cannot register using our online system when requesting this discount. This discount is available for both the early registration and regular registration fees.

2021 PUBLIC COURSES BY DATE AND LOCATION

SEATTLE, WASHINGTON | APRIL 12-16, 2021

DoubleTree Suites by Hilton Hotel Seattle Airport Southcenter | LPE.ku.edu/aero-seattle


MONDAY 4/12	TUESDAY 4/13	WEDNESDAY 4/14	THURSDAY 4/15	FRIDAY 4/16
Aerodynamic Design of Commercial Airplanes p. 11				
Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification p. 13				
Aircraft Structural Loads: Requirements, Analysis, Testing and Certification p. 14				
Aircraft Structures: Analysis and Design p. 15				
Complex Electronic Hardware Development and DO-254* p. 18			Integrated Modular Avionics (IMA) and DO-297* p. 27	
FAA Type Certification Process p. 22				
Flight Test Principles and Practices p. 23				
Instructions for Continued Airworthiness using Enhanced Zonal Analysis Procedure (EZAP) p. 26				
Structural Composites p. 34				
System Safety Assessment for Commercial Aircraft Aviation p. 34				
* COMBINE COURSES: Save 20% when you combine Complex Electronic Hardware Development and DO-254 and Integrated Modular Avionics (IMA) and DO-297.				

KANSAS CITY AREA | APRIL 26-30, 2021

KU Edwards Campus | Overland Park, Kansas | LPE.ku.edu/aero-kc

MONDAY 4/26	TUESDAY 4/27	WEDNESDAY 4/28	THURSDAY 4/29	FRIDAY 4/30
Advanced Flight Tests p. 10				
Flight Control and Hydraulic Systems p. 23				
Cybersecurity Fundamentals for Aerospace Design, Engineering and Operations p. 19				
Introduction to Electromagnetic Effects and Aircraft Engineering Requirements (EME) p. 27				
Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance p. 28				
Project Management Fundamentals for Aerospace Professionals p. 31				
Propulsion Systems for UAVs and General Aviation Aircraft p. 32				
Software Safety, Certification and DO-178C p. 33				

LOOKING FOR AN ONLINE COURSE?

Look for courses with the  **AVAILABLE ONLINE** icon throughout this catalog. This icon indicates the course is offered online at regularly scheduled times and/or can be brought to your organization and delivered live online.

Visit our website LPE.ku.edu/aero-online-courses for the complete online course schedule.

2021 PUBLIC COURSES BY DATE AND LOCATION

SAN DIEGO, CALIFORNIA | SEPTEMBER 6–10, 2021 | WEEK ONE

San Diego Marriott Mission Valley | LPE.ku.edu/aero-sandiego

MONDAY 9/6 (HOLIDAY)	TUESDAY 9/7	WEDNESDAY 9/8	THURSDAY 9/9	FRIDAY 9/10
	Aircraft Icing: Meteorology, Protective Systems, Instrumentation and Certification p. 13			
	Application of Human Factors Engineering to the Life Cycle Management of Aeronautical Products and Systems p. 16			
	Cybersecurity Fundamentals for Aerospace Design, Engineering and Operations p. 19			
	Dynamics for Aerospace Structures p. 19			
Electrical Wiring Interconnection System (EWIS) and FAA Requirements p. 20				
	FAA Aircraft Certification and Airworthiness Approvals p. 21			
	FAA Type Certification Plan Development p. 22			
	MIL-STD Qualification: Purpose, Testing and Design Considerations p. 28			

SAN DIEGO, CALIFORNIA | SEPTEMBER 13–17, 2021 | WEEK TWO

San Diego Marriott Mission Valley | LPE.ku.edu/aero-sandiego

MONDAY 9/13	TUESDAY 9/14	WEDNESDAY 9/15	THURSDAY 9/16	FRIDAY 9/17
Aircraft Structures: Analysis and Design p. 15				
Airplane Flight Dynamics p. 15				
Electrical Wiring Interconnection System (EWIS) Safety Assessment – 25.1709 p. 20				
Future Propulsion Systems and Energy Sources in Sustainable Aviation p. 25				
High Intensity Radiated Fields (HIRF) Certification and Compliance p. 26				
Operational Test and Evaluation: User-Centric Systems Testing p. 29				
Principles of Aeroelasticity p. 30				
Principles of Aerospace Engineering p. 30				
System Safety Assessment for Commercial Aircraft Certification p. 34				

ORLANDO, FLORIDA | OCTOBER 18–22, 2021

B Resort | LPE.ku.edu/aero-orlando

MONDAY 10/18	TUESDAY 10/19	WEDNESDAY 10/20	THURSDAY 10/21	FRIDAY 10/22
Aerospace Applications of Systems Engineering p. 12				
Cabin Safety and Crashworthiness of Aircraft Cabin Interiors p. 17				
Civil and Military Certification of Propulsion Systems to Support Aircraft and Helicopter Operations p. 17				
Electromagnetic Effects Aircraft Level Testing and FAA Requirements p. 21				
Flight Testing Unmanned Aircraft Systems – Unique Challenges p. 24				
Fundamentals of V/STOL Rotorcraft p. 28				
Operational Aircraft Performance and Flight Test Practices p. 29				
			The Regulations of Maintenance – AEA p. 32	

CERTIFICATES OF SPECIALIZATION

Enhance Your Knowledge—Advance Your Career

Certificates of Specialization are for those who desire concentrated study in a specific area of interest. Achieving a Certificate of Specialization demonstrates to employers, coworkers and the aerospace industry that you are qualified, competent and current in your field. It distinguishes you as a professional who is committed to your career and strives to be the best. Earn a Certificate of Specialization by completing four courses within one of the following nine specializations.

AEROSPACE COMPLIANCE (AC)

- p.13 Aircraft Icing: Meteorology, Protective Systems, Instrumentation and Certification
- p.13 Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification
- p.14 Aircraft Structural Loads: Requirements, Analysis, Testing and Certification
- p.17 Civil and Military Certification of Propulsion Systems to Support Aircraft and Helicopter Operations
- p.18 Complex Electronic Hardware Development and DO-254
- p.20 Electrical Wiring Interconnection System (EWIS) and FAA Requirements
- p.20 Electrical Wiring Interconnection System (EWIS) Safety Assessment 25.1709
- p.21 Electromagnetic Effects Aircraft Level Testing and FAA Requirements
- p.21 FAA Aircraft Certification and Airworthiness Approvals (*This course replaces FAA Functions and Requirements Leading to Airworthiness Approval.*)
- p.22 FAA Type Certification Process
- p.22 FAA Type Certification Plan Development
- p.26 High Intensity Radiated Fields (HIRF) Certification and Compliance
- p.27 Integrated Modular Avionics (IMA) and DO-297
- p.28 Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance
- p.28 MIL-STD Qualification: Purpose, Testing and Design Considerations
- p.33 Software Safety, Certification and DO-178C (or DO-178B)
- p.34 System Safety Assessment for Commercial Aircraft Certification

AIRCRAFT DESIGN (AD)

- p.11 Aerodynamic Design Improvements: High-Lift and Cruise
- p.11 Aerodynamic Design of Commercial Airplanes
- p.14 Aircraft Propulsion Systems: Principles and Practices
- p.14 Aircraft Structural Loads: Requirements, Analysis Testing and Certification
- p.15 Aircraft Structures: Analysis and Design
- p.15 Airplane Flight Dynamics
- p.16 Airplane Preliminary Design
- p.18 Conceptual Design of Unmanned Aircraft Systems
- p.19 Dynamics for Aerospace Structures
- p.23 Flight Control and Hydraulic Systems

AIRCRAFT DESIGN (AD) (continued)

- p.25 Fundamentals of V/STOL Rotorcraft
- p.30 Principles of Aeroelasticity
- p.30 Principles of Aerospace Engineering
- p.32 Propulsion Systems for UAVs and General Aviation Aircraft
- p.33 Stress Analysis for Aerospace Structures

AIRCRAFT MAINTENANCE AND SAFETY (AMS)

- p.13 Aircraft Icing: Meteorology, Protective Systems, Instrumentation and Certification
- p.16 Application of Human Factors Engineering to the Life Cycle Management of Aeronautical Products and Systems
- p.17 Cabin Safety and Crashworthiness of Aircraft Cabin Interiors
- p.20 Electrical Wiring Interconnection System (EWIS) and FAA Requirements
- p.20 Electrical Wiring Interconnection System (EWIS) Safety Assessment 25.1709
- p.21 Electromagnetic Effects Aircraft Level Testing and FAA Requirements
- p.26 High Intensity Radiated Fields (HIRF) Certification and Compliance
- p.27 Introduction to Electromagnetic Effects (EME) and Aircraft Engineering Requirements
- p.28 Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance
- p.34 System Safety Assessment for Commercial Aircraft Certification

AIRCRAFT STRUCTURES (AS)

- p.14 Aircraft Structural Loads: Requirements, Analysis, Testing and Certification
- p.15 Aircraft Structures: Analysis and Design
- p.17 Cabin Safety and Crashworthiness of Aircraft Cabin Interiors
- p.19 Dynamics for Aerospace Structures
- p.33 Stress Analysis for Aerospace Structures
- p.34 Structural Composites

AVIONICS AND AVIONIC COMPONENTS (AAC)

- p.10 Advanced Avionics
- p.13 Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification
- p.18 Complex Electronic Hardware Development and DO-254
- p.20 Electrical Wiring Interconnection System (EWIS) and FAA Requirements
- p.20 Electrical Wiring Interconnection System (EWIS) Safety Assessment 25.1709
- p.21 Electromagnetic Effects Aircraft Level Testing and FAA Requirements
- p.24 Fundamental Avionics
- p.26 High Intensity Radiated Fields (HIRF) Certification and Compliance
- p.27 Integrated Modular Avionics (IMA) and DO-297
- p.27 Introduction to Electromagnetic Effects (EME) and Aircraft Engineering Requirements
- p.28 MIL-STD Qualification: Purpose, Testing and Design Considerations
- p.33 Software Safety, Certification and DO-178C (or DO-178B)
- p.34 System Safety Assessment for Commercial Aircraft Certification

ELECTROMAGNETIC EFFECTS (EME)

- p.13 Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification
- p.20 Electrical Wiring Interconnection System (EWIS) and FAA Requirements
- p.20 Electromagnetic Effects Aircraft Level Testing and FAA Requirements
- p.26 High Intensity Radiated Fields (HIRF) Certification and Compliance
- p.27 Introduction to Electromagnetic Effects (EME) and Aircraft Engineering Requirements
- p.28 Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance

ELECTRICAL WIRING INTERCONNECTION SYSTEM (EWIS)

- p.20 Electrical Wiring Interconnection System (EWIS) and FAA Requirements
- p.20 Electrical Wiring Interconnection System (EWIS) Safety Assessment – 25.1709
- p.26 Instructions for Continued Airworthiness using Enhanced Zonal Analysis Procedure (EZAP)
- p.28 Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance
- p.34 System Safety Assessment for Commercial Aircraft Certification

FLIGHT TESTS AND AIRCRAFT PERFORMANCE (FT)

- p.10 Advanced Flight Tests
- p.14 Aircraft Propulsion Systems: Principles and Practices
- p.15 Airplane Flight Dynamics
- p.23 Flight Test Principles and Practices
- p.24 Flight Testing Unmanned Aircraft Systems – Unique Challenges
- p.25 Fundamentals of V/STOL Rotorcraft
- p.29 Operational Aircraft Performance and Flight Test Practices
- p.29 Operational Test and Evaluation – User-Centric Systems Testing
- p.30 Principles of Aeroelasticity

UNMANNED AIRCRAFT (UA)

- p.18 Conceptual Design of Unmanned Aircraft Systems
- p.24 Flight Testing Unmanned Aircraft Systems – Unique Challenges
- p.32 Propulsion Systems for UAVs and General Aviation Aircraft
Unmanned Aircraft System Software Airworthiness *This course is retired.*

Want to find out if you are on a certificate track? You could be closer than you think.
Contact us at professionalprograms@ku.edu to inquire today.



Advanced Avionics

Instructor: Albert Helfrick

2021 COURSES

pages 10-35

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

AAC

Description

Advanced Avionics covers systems that will be the mainstay of CNS (communications, navigation and surveillance) in the future. Course material reviews the basic theory of navigation and provides a thorough introduction and survey of global navigation satellite systems (GNSS) with emphasis on GPS. Modern surveillance systems based on Mode-S and ADS-B are also covered as are both wired and wireless communications systems. This course includes in-class exercises that involve college-level mathematics.

Who should attend?

This course is intended for engineers involved in the design and development of avionics components and systems.

Advanced Flight Tests

Instructors: Donald T. Ward, Thomas M. Hermann

KANSAS CITY

April 26 –30, 2021

Monday – Thursday

8 a.m. – 4 p.m.

Friday, 8 a.m. – 2 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Mar. 12, 2021)

CEUS

33 classroom hours
3.3 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

FT

Description

This course provides the practical knowledge needed to plan a safe and comprehensive series of flutter envelope expansion tests. It includes suggestions and recommendations for flutter and post-stall certification as well as demonstration of new or significantly modified airplane designs to meet civil or military requirements.

Who should attend?

Designed for practicing and entry-level flight test engineers and managers, aircraft engineers and aircraft designers.

Aerodynamic Design Improvements: High-Lift and Cruise

Instructor: Case van Dam

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AD

Description

This course covers recent advances in high-lift systems and aerodynamics as well as cruise drag prediction and reduction. It includes discussion of numerical methods and experimental techniques for performance analysis of wings and bodies and boundary-layer transition prediction/detection.

Who should attend?

Designed for engineers and managers involved in the aerodynamic design and analysis of airplanes, rotorcraft and other vehicles.

Aerodynamic Design of Commercial Airplanes

Instructor: Roelof Vos

SEATTLE, WASHINGTON

April 12 – 16, 2021
Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Feb. 26, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AD

Description

In this course participants learn how aerodynamics drive the detailed exterior design of transport aircraft. Which aerodynamic phenomena play a role in the exterior design of a wing, a cockpit or an engine intake? What is the effect of aerodynamic add-ons such as vortex generators, fairings or winglets? What are the advantages and penalties of wing sweep, and how can the penalties be mitigated by the aerodynamic design of the wing? These are some of the questions this course addresses. Participants learn how the various aircraft components should be shaped in order to fulfill aerodynamic requirements in all corners of the flight envelope. The strong ties between aircraft performance, aircraft aerodynamics and aircraft exterior design are demonstrated through numerous historical and contemporary examples. Although the main focus is on jet aircraft, the course also covers the effects of propeller installation on the aerodynamic design of the empennage.

Who should attend?

Designed for aeronautical engineers, pilots with some engineering background, government research laboratory personnel, engineering managers and educators.

Aerospace Applications of Systems Engineering

Instructors: Donald T. Ward and D. Mike Phillips

ORLANDO, FLORIDA

October 18 – 22, 2021
Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Sept. 3, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS



CERTIFICATE TRACK

This course is not assigned to a certificate track.

Description

Participants receive an introduction to systems engineering fundamentals as applied to aerospace systems with emphasis on manned aircraft, both commercial and military. The course is based on evolving systems engineering standards, the current versions of the INCOSE Systems Engineering Handbook (the Systems Engineering Book of Knowledge), and the EIA/IS 632, IEEE P1220 and INCOSE papers. The material provides a working knowledge of all elements, technical and managerial, involved in systems engineering as applied to aerospace systems of varying complexity. It concentrates on the most troublesome areas in systems development: requirements definition and derivation, integration, allocation of requirements, risk management, verification and validation. Hardware and software systems case studies, primarily from the aircraft sector of the aerospace industry, are used as examples. Techniques have been used on many commercial aircraft (from large airliners to military fighters to small personal aircraft), DoD and NASA programs.

Who should attend?

The lectures and practice are designed for systems engineers at all levels and program managers developing large or small systems. It is especially well-suited for engineers moving into systems engineering from other disciplines.

Aircraft Avionics Test and Evaluation Fundamentals NEW COURSE

Instructor: Mark J. Swaney

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

This course provides an overview of avionics systems flight test, test planning and risk management, as well as fundamentals of flight test instrumentation and data collection. Students will understand challenges of integrated system testing, as well as the importance and sources of time, space and position information (TSP) and its use for data acquisition, reduction and analysis. They will review methods of software flight test and basic issues of electromagnetic interference. Students will also become familiar with aerospace data bus architectures, communications and navigation systems, Global Navigation Satellite (GNSS), RADAR, as well as electro-optical and infrared systems and required flight test techniques. Students will also understand the challenges of human-machine interfaces requiring crew station and workload evaluations as part of the aircraft and systems certification process.

Who should attend?

Flight test engineers and managers, instrumentation engineers and project/program managers new to aircraft avionics flight test. The course also offers an opportunity for those who have been out of flight test to refresh their knowledge. It is also applicable to aerospace industry electronics and avionics suppliers and manufacturers of unmanned air systems interested in how their products will be flight tested to meet specifications and user requirements. It is applicable to military and civilian organizations and has no prerequisites. Attendees should have a basic knowledge of college mathematics.

Aircraft Icing: Meteorology, Protective Systems, Instrumentation and Certification AVAILABLE ONLINE

Instructors: Wayne R. Sand and Steven L. Morris

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021
Tuesday – Friday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate – register and pay by July 23, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AC, AMS

Description

This course examines icing characteristics as a function of aircraft type, flight and atmospheric conditions. Students will be able to identify and describe key environmental/atmospheric weather phenomena that result in aircraft icing conditions. They will be able to assess different types of aircraft icing – including the characteristics of Supercooled Large Droplet (SLD) icing – and their potential hazardous effects on aircraft and engine performance. Students will evaluate current technology tools to aid in locating and assessing natural icing conditions, recognize various types of ice protection and detection systems and develop a basic understanding of key regulations and the aircraft icing certification process. Students will define experimental and computational tools to evaluate and analyze the formation and effects of icing on aircraft operations. Students will learn how to use current ice forecast technology via a live internet presentation.

Who should attend?

Designed for aerospace engineers, flight test and design engineers, test pilots, line pilots, meteorologists, FAA engineers and Designated Engineering Representatives (DERs) and program managers.

Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification

Instructors: C. Bruce Stephens, Darren L. Stout (This course may be taught by either instructor.)

SEATTLE, WASHINGTON

April 12 – 16, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Feb. 26, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AAC, EME, AC

Description

This course provides details for direct and indirect effects of aircraft lightning testing and certification. Requirements for both composite and metallic aircraft, including proper RTCA/DO-160 classifications, are examined. The course will also include a high-level overview of Electromagnetic Compatibility (EMC), High-Intensity Radiated Fields (HIRF), Precipitation Static (P-Static) and Electrical Bonding requirements. The new requirements of Electrical Wiring and Installation System (EWIS) and Fuel Tank Safety (14 CFR 25.981 Amd. 102) will also be addressed.

Who should attend?

All design engineering disciplines, including project managers, project engineers and laboratory personnel whose aircraft system may require protection from the effects of lightning.

“This was my first professional development course. I had a very positive experience and left equipped with the tools that I need to help make me and my company successful. Bruce was well-prepared with numerous real-life stories that made the course material relevant. I am sure this won't be the last KU course in my career.”

– Daniel Rykert, Engineer, Aerospace (2019 Kansas City attendee)

Aircraft Propulsion Systems: Principles and Practices

Instructor: Saeed Farokhi

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

CERTIFICATE TRACK

AD

Description

In this course, students will review the basic principles of propulsion systems with emphasis on jets and fan systems. They will also review inlets and nozzles, compressors, burners, fuels, turbines and jets culminating in design and off-design engine analysis, performance and environmental considerations. The impact of propulsion system integration on external aerodynamics and (noise and IR) signature reduction is also presented, along with an introduction to novel concepts in propulsion.

Who should attend?

Engineers, engineering managers, pilots, administrators and educators involved in rotary wing design, testing, evaluation or other technical aspects. This course is also suitable for entry through intermediate level students, engineers and pilots who are new to the industry.

Aircraft Structural Loads: Requirements, Analysis, Testing and Certification

Instructor: Wally Johnson

SEATTLE, WASHINGTON

April 12 – 16, 2021

Monday – Thursday

8 a.m. – 4 p.m.

Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Feb. 26, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🇺🇸 🇨🇦

CERTIFICATE TRACKS

AS, AD, AC

Description

This course provides an overview of aircraft structural external loads analysis including: criteria, design, analysis, fatigue, certification, validation and testing. It covers FAR 23 and FAR 25 airplane load requirements. However, the concepts may be applicable for military structural requirements. Loads calculation examples using BASICLOADS software will be demonstrated throughout the course week. A copy of BASICLOADS software will be provided to attendees.

Who should attend?

Practicing engineers and engineering managers whose responsibilities include aircraft structures.

“I have been a loads engineer for years and this course still provided me with much-needed insight that I haven't been able to get on the job.”

– Micah Gee, Loads and Dynamics Engineer, The Boeing Company (2019 San Diego attendee)

Aircraft Structures: Analysis and Design AVAILABLE ONLINE

Instructor: Mark S. Ewing

SEATTLE, WASHINGTON

April 12 –16, 2021

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021

Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Feb. 26, 2021 [Seattle] or July 30, 2021 [San Diego])

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AS, AD

Description

This course delivers an introduction to analysis and design of aircraft structures. Course content includes design criteria, structural design concepts, loads and load paths, metallic and composite materials, static strength, buckling and crippling, durability and damage tolerance, practical design considerations and certification and repairs. Analysis exercises and a design project are included to further involve students in the learning process.

Who should attend?

This course is designed for engineers, educators and engineering managers whose responsibilities include aircraft structures.

“This was an incredible experience for me to be in here, listen to Mark Ewing about aerospace and meet with people from all around the world.”

– Tarik Gençay, System Installation Engineer, Turkish Aerospace (2019 San Diego attendee)

Airplane Flight Dynamics AVAILABLE ONLINE

Instructor: Willem A.J. Anemaat

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021

Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by July 30, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

FT, AD

Description

Participants learn an overview of airplane static and dynamic stability and control theory and applications, as well as classical control theory and applications to airplane control systems. An overview of flying qualities and regulations is included.

Who should attend?

Aeronautical engineers, mechanical engineers, electrical engineers needing to learn more about flight dynamics, along with pilots with some engineering background, government research laboratory personnel, engineering managers and educators.

Airplane Preliminary Design

Instructor: Willem A.J. Anemaat

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours

3.5 CEUs

CERTIFICATE TRACK

AD

Description

This course provides an overview of the fixed-wing airplane design decision-making process and the relation of design to manufacturing, maintainability and cost-effectiveness. It is applicable to jet transport, turboprop commuter transport, military (trainers, fighter bomber, UAV) and general aviation aircraft. The design process covers sizing (weight, wing area, thrust/power), aerodynamics, weight and balance, stability, control and cost. Numerous examples are shown. Lessons learned and “what to watch out for” are discussed.

Who should attend?

Aeronautical engineers, mechanical engineers and electrical engineers needing to learn more about design, pilots with some engineering background, government research laboratory personnel, engineering managers and educators.

Application of Human Factors Engineering to the Life Cycle Management of Aeronautical Products and Systems

Instructor: Andrew Appleton

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021

Tuesday – Friday

8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate – register and pay by July 23, 2021)

CEUS

28 classroom hours

2.8 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

AMS

Description

This introductory course will provide attendees with a solid foundation of knowledge and skills necessary to successfully apply Human Factors Engineering (HFE) and Human System Integration (HSI) to their daily work. Attendees will attain familiarity with and trust in HFE/HSI principles and practices to consider and implement at their workplace. This understanding will provide attendees with the knowledge and skills to inject HFE/HSI at an early stage in the life cycle of their aeronautical products and systems. Doing so will produce a safer, user-centered product that can lower the cost of the product over the entire course of its life cycle.

Who should attend?

Aeronautical product designers, aeronautical system specialist engineers, aviation system safety specialists, aircraft occupant safety specialists and airworthiness program managers.

Cabin Safety and Crashworthiness of Aircraft Cabin Interiors

Instructor: Jose Mora-Vargas

ORLANDO, FLORIDA

October 18 – 22, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by Sept. 3, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS

CERTIFICATE TRACKS

AMS, AS

Description

This course provides a fundamental review of transport airplane regulatory requirements and compliance-finding methodologies associated with cabin safety and crashworthiness regulations on aircraft cabin interior configurations. The course also reviews FAA/EASA criteria to determine the certification bases of type certification and supplemental type certification projects.

Who should attend?

This course is designed for FAA designees, FAA organizational designees/authorized representatives and certification engineers associated with STC cabin interior projects.

 "Very comprehensive look at FAA and EASA regulations associated with cabin safety and crashworthiness of cabin interiors. Provided guidance for responsibilities of delegated designees for this authorization."

– Joe Musco, Principal Engineer, Sierra Nevada Corporation

Civil and Military Certification of Propulsion Systems to Support Aircraft and Helicopter Operations

Instructors: Luc Deniger and Derek Ferguson

ORLANDO, FLORIDA

October 18 – 22, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by Sept. 3,
2021).

CEUS

31.5 classroom hours
3.15 CEUs

CERTIFICATE TRACK

AC

Description

This course reviews fundamental design considerations for certification of propulsion systems. It discusses design requirements, methods of compliance, tests and analyses to demonstrate compliance to civil and military certification requirements. Using practical examples, participants will gain knowledge to support their role as propulsion engineers.

Who should attend?

This course is designed for entry-level and practicing propulsion engineers and managers, aircraft engineers and aircraft designers.

Complex Electronic Hardware Development and DO-254

 **AVAILABLE ONLINE**

Instructor: Jeff Knickerbocker

SEATTLE, WASHINGTON

April 12 – 14, 2021

Monday – Wednesday
8 a.m. – 4 p.m.

FEE

\$1,995 (\$1,895 early rate – register and pay by Feb. 26, 2021).

CEUS

21 classroom hours
2.1 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AAC, AC

Description

This course reviews the fundamentals of developing and assessing electronic components to the standard RTCA/DO-254 Design Assurance Guidance for Airborne Electronic Hardware. The course also provides insight into the FAA's review process and guidance along with practical keys for successful development and certification. Practical exercises and in-class activities further enhance the learning process.

Who should attend?

Designed for developers, avionics engineers, systems integrators, aircraft designers and others involved in development or implementation of complex electronic hardware and programmable devices (application specific integrated circuits, field-programmable gate arrays, etc.).

COMBINE COURSES AND SAVE!

Receive a 20% discount when you take both **Complex Electronic Hardware Development and DO-254** and **Integrated Modular Avionics (IMA) and DO-297**. Add both courses to your shopping cart, and enter the promo code **DOCOMBO** when you checkout.

Conceptual Design of Unmanned Aircraft Systems

Instructor: Bill Donovan

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enlarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AD, UA

Description

This course provides a conceptual approach to overall design of Unmanned Aircraft Systems (UAS) including concepts of operations, communications, payloads, control stations, air vehicles and support. It also covers requirements and architecture development, initial sizing and conceptual-level parametric and spreadsheet assessment of major system elements.

Who should attend?

This course is designed primarily for practicing conceptual-level design engineers, systems engineers, technologists, researchers, educators and engineering managers. For maximum course benefit, students should have some knowledge of basic aerodynamics and conceptual aircraft design, although it is not mandatory. A basic knowledge of spreadsheet analysis methods is assumed.

“I took this course because it was a systems-oriented course, and I was also interested in UAS as a hobby. I was pleasantly surprised to find how everything covered in class closely related to job duties, and how applicable it would all be to designing a full-scale aircraft. I came away from the course feeling that I have a good grasp of all the concepts required in putting an UAS together, and where to concentrate efforts to increase the fidelity of the design.

– Xavier Dulin, Systems Engineer, Sierra Nevada Corporation (2019 San Diego attendee)

Cybersecurity Fundamentals for Aerospace Design, Engineering and Operations

Instructors: Amy Billinger and Jeremy Jackson (This course may be taught by either instructor.)

KANSAS CITY

April 26 – 28, 2021

SAN DIEGO

September 7 – 9, 2021

Monday – Wednesday or

Tuesday – Thursday

8 a.m. – 4 p.m.

FEE

\$1,995 (\$1,895 early rate – register and pay by March 12 [Kansas City] and July 23 [San Diego]).

CEUS

21 classroom hours

2.1 CEUs

DISCOUNTS ★

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

This course introduces students to cyber threats and vulnerabilities that U.S. aerospace businesses face. Tactics used by nation-state adversaries and individual hackers to attack U.S. networks and systems will be examined, with an emphasis on emerging techniques. This course builds designer, engineer and operator risk understanding by demonstrating how to identify vulnerabilities and consequences and correlate them with threats. Prevention techniques and countermeasures will also be identified to support individuals as they return to their companies, so they may work towards implementing cybersecurity measures that better protect their company systems and networks.

This course is ITAR restricted. For complete information on who can register, please see the course page at LPE.ku.edu/cyber-intro.

Please note that you cannot register for this course via our online registration system. For more information on how to register, please contact professionalprograms@ku.edu.

Who should attend?

This course is intended for designers, developers, engineers, systems integrators, and project/program managers involved in the design and development of avionics and aerospace components and systems, as well as those involved in the support of those functions or aviation operations.

Dynamics for Aerospace Structures

Instructor: Dennis Philpot

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021

Tuesday – Friday

8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate – register and pay by June 23, 2021)

CEUS

28 classroom hours

2.8 CEUs

CERTIFICATE TRACKS

AD, AS

Description

This course is designed to provide participants with a strong theoretical as well as practical knowledge of the methodologies for performing rigid body and modal-based dynamics analysis on a wide range of structural and mechanical systems. The course builds upon the theoretical foundation with practical applications that can be immediately put into practice in the workplace. Both the theory and practice of classical “hand” analysis techniques are presented, along with the more modern (numerical/computational) methods used in the industry. The subject matter difficulty level is intermediate.

Who should attend?

This course will benefit design engineers who would like to become more familiar with the techniques and modern practices of dynamics analysis to help them be more knowledgeable and bring more capability to the work place. It is also appropriate for mechanical engineers who need to become more proficient in structural dynamics due to a particular job assignment or new career opportunity. Department managers whose staff are involved in loads and dynamics work are also encouraged to attend.

Electrical Wiring Interconnection System (EWIS) and FAA Requirements

Instructors: C. Bruce Stephens, Franklin L. Cummins, Thomas N. Taylor (This course may be taught by any of these instructors.)

SAN DIEGO, CALIFORNIA

September 6 – 10, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by June 23, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AC, AMS, AAC, EWIS, EME

Description

In this course, students will review electrical wiring interconnection system (EWIS) regulations related to aircraft wiring and components and how to apply those regulations to different zones of the aircraft. Based on the premise of electrical wiring as an integrated airplane system, students will recognize the relationship between engineering requirements and EWIS regulations and how to establish methods for demonstrating compliance to EWIS regulations. Students will also review the EWIS safety analysis methodology along with EWIS maintenance and inspection requirements. Students learn through teaming how to apply EWIS regulations and associated advisory circular guidance via daily practical examples and team simulations.

Who should attend?

The course is designed for all aircraft design areas including electrical, avionics, and HIRF/lightning engineers and aircraft technicians. Aircraft managers and project engineers working in electrical/avionics related areas should also attend.

Electrical Wiring Interconnection System (EWIS) Safety Assessment–25.1709

Instructors: Thomas N. Taylor, C. Bruce Stephens (This course may be taught by either instructor.)

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by July 30, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AC, AMS, AAC, EWIS

Description

This course focuses on the requirements and methods that can be used to demonstrate compliance to 14 CFR 25.1709 (EWIS Safety Analysis). The discussion will examine the use of FAA AC 25.1701-1 to prepare a functional and physical analysis. The course will also include an overview of the EWIS requirements included in 14 CFR Part 25, subpart H.

Who should attend?

The course is designed for engineers, technicians and managers involved in the design and certification of Transport Category Aircraft. The course is intended for both original equipment manufacturers (OEMs) and aircraft modifiers.

“The course was very intuitive and highlighted the importance of EWIS considerations. It also highlighted the fatal consequences of not considering EWIS, which was a definite eye-opener. Really enjoyed the interactive problem solving and activities throughout the course.”

– Matthew Walker, New Zealand Defence Force (2019 San Diego attendee)

Electromagnetic Effects Aircraft Level Testing and FAA Requirements

 **AVAILABLE ONLINE**

Instructors: C. Bruce Stephens, Darren L. Stout (This course may be taught by either instructor.)

ORLANDO, FLORIDA

October 18 – 22, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Sept. 3, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AMS, AAC, AC, EME

Description

This course presents aircraft ground and flight testing concepts that may be required to ensure aircraft-level systems are safe for operation when exposed to electromagnetic effects including high intensity radiated fields (HIRF), lightning, precipitation static (P-static) and transmitting personal devices (TPEDs). Students will review aircraft testing fundamentals for these conditions and how to coordinate all aspects of EME aircraft-level testing. Students will identify aircraft testing problems and solutions, determine the requirements for ground testing versus flight testing and analyze test data results to demonstrate compliance for HIRF, lightning, P-static and TPEDs.

Who should attend?

The course is designed for engineers and technicians working in all aircraft design and testing areas, including electrical, avionics and communications. Aircraft managers and project engineers who coordinate airplane testing and/or certification-related areas are also recommended to attend.

FAA Aircraft Certification and Airworthiness Approvals

Instructor: John Tigue

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021
Monday – Thursday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate – register and pay by July 23, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AC

Description

This course provides an overview of FAA aircraft certification in its regulatory context including type design, production, airworthiness, repairs and alterations, and continued operational safety. It includes FAA approvals for military derivatives of civil aircraft including FAA's policies and limitations on these projects. Students will recognize the requirements and procedures for the various types of approvals and be able to identify the FAA's airworthiness functions, related organizational structure, customer principles and Partnership for Safety Plans (PSP). Students will review the relevant Code of Federal Regulations (CFR) parts including airworthiness standards, procedural rules, and the FAA's rulemaking and advisory processes and learn to distinguish among individual and organizational delegations authorized by the FAA. Students will recognize the FAA continued operational safety processes used to identify unsafe conditions and to mandate inspections and modifications to address them and be able to state how the U.S. uses executive agreements and bilateral aviation safety agreements to mutually accept product approvals with other authorities. *This course is FAA approved for Inspection Authorization (IA) renewal.*

Who should attend?

Those involved in aircraft certification and airworthiness (equipment manufacturers, aircraft modifiers, suppliers and airworthiness authorities) including design engineers, airworthiness engineers, consultants, certification specialists, project managers, quality assurance managers, FAA designees and FAA organizational Authorized Representatives (ARs).

FAA Type Certification Process

Instructors: Travis L. Dahna, Scott West (This course may be taught by either instructor.)

SEATTLE, WASHINGTON

April 12 – 15, 2021

Monday – Thursday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate –
register and pay by Feb. 26, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AC

Description

This course will focus on how to successfully complete an FAA type certificate project based on the published process outlined by the FAA, including a review of all required FAA forms and when to use them. Attendees take a deep dive into the type certification process outlined in FAA Order 8110.4, specifically focusing on chapters 1-5 (chapters 6 and 7 will also be discussed, but not in great detail). The instructor will draw from hundreds of real-world type certificate and supplemental type certificate projects – distilling years of information to provide insight into this lengthy and potentially complex process.

Who should attend?

Those involved in product or article certification (aircraft/equipment OEM, aircraft modifiers, suppliers and ODA personnel) including design engineers, airworthiness engineers, consultants, certification specialists, project managers, quality assurance managers, FAA designees (engineering/manufacturing) and FAA Organization Designation Authorization (ODA) unit and support personnel.

FAA Type Certification Plan Development

Instructors: Travis L. Dahna, Scott West (This course may be taught by either instructor.)

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021

Tuesday – Friday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate –
register and pay by July 23, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AC

Description

This course will prepare attendees to develop a thorough FAA certification plan/project specific certification plan (CP/PSCP) that meets the requirements of Order 8110.4C associated with new type certification projects. Tools for developing a robust compliance checklist (CCL) and the use of appropriate means of compliance will be discussed in detail including the necessary sections, required information and how to define the appropriate documentation supporting those means of compliance. Attendees will utilize the outline and sample template of a certification plan, which can be crafted to meet their project's specific needs. Attendees will also become familiar with the requirements and activities associated with an FAA conformity plan.

Who should attend?

Those actively involved in product or article certification (aircraft/equipment OEM, aircraft modifiers, suppliers and ODA personnel) including airworthiness engineers, consultants, certification specialists, FAA designees (engineering/manufacturing), and FAA Organization Designation Authorization (ODA) unit and support personnel.

Flight Control and Hydraulic Systems AVAILABLE ONLINE

Instructors: Wayne Stout, Michael Jenkins (This course may be taught by either instructor.)

KANSAS CITY

April 26 – 30, 2021

Monday – Thursday

8 a.m. – 4 p.m.

Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Mar. 12, 2021)

CEUS

31.5 classroom hours

3.15 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AD

Description

This course covers fundamental design issues along with analysis and design methodologies for aerospace hydraulic and flight control systems. Topics include design requirements, component description and operation, component and system math modeling, component sizing, system layout rationale, system sizing and airframe integration. The course emphasizes the fundamentals and necessary engineering tools (both analytical and otherwise) needed to understand and design aerospace hydraulic and flight control systems. Practical examples and actual systems are presented and discussed throughout the class.

Who should attend?

This course is designed for system- and component-level engineers and managers including airframe, vendor, industry and government. It is also designed for educators involved with aerospace mechanical systems.

“This course is excellent for mechanical systems engineers who are relatively new to the field. The course provides a strong foundation in a short period of time, quickly allowing engineers to understand existing hydraulic and flight control systems or take an active role in the design of new ones.”

– Lucas Sganderlia, Engineer, Hydraulic Systems (2019 San Diego attendee)

Flight Test Principles and Practices

Instructors: Donald T. Ward and George Cusimano

SEATTLE, WASHINGTON

April 12 – 16, 2021

Monday – Friday

8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Feb. 26, 2021)

CEUS

35 classroom hours

3.5 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

FT

Description

This course introduces and defines the basic flight test process and application of engineering principles to flight test and description of common flight test practices, and provides an introduction to the flight test discipline. The course is embellished with a variety of examples from completed flight test programs.

Who should attend?

The course is designed for all levels of engineers and managers in industry working on flight test projects, military and civil project engineers, test pilots and flight test engineers, government research laboratory personnel and FAA and other regulatory agency engineers. It is ideally suited for engineers and managers from other disciplines who are moving into the flight test discipline for the first time or who must interact with flight test engineers regularly on a given project.

Flight Testing Unmanned Aircraft Systems – Unique Challenges

 **AVAILABLE ONLINE**

Instructor: George Cusimano

ORLANDO, FLORIDA

October 18 – 20, 2021
Monday – Wednesday
8 a.m. – 4 p.m.

FEE

\$1,995 (\$1,895 early rate –
register and pay by Sept. 3, 2021)

CEUS

21 classroom hours
2.1 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

FT, UA

Description

Unmanned Aircraft Systems (UAS) must be tested with the same rigor and precision as manned systems and demand unique flight test approaches that present corresponding challenges. Students will recognize the primary challenges associated with flight testing both remotely-piloted and command-directed vehicles – with primary emphasis on Tactical, Medium-Altitude Long Endurance (MALE), and High-Altitude Long Endurance (HALE) class systems – and identify solutions to these challenges that mitigate and/or eliminate potential problems before they become unmanageable. Students will identify typical UAS requirements, understand the current state of flying UASs in the National Airspace System and learn how to apply risk management techniques to help mitigate UAV flight test hazards. They will recognize the most problematic areas of UAS ground and flight test, comprehend the unique aspects of UAV first flights and review key lessons learned from past UAS flight test programs.

Who should attend?

The course is designed for practicing flight test engineers, test pilots, test managers, aircraft engineers, aircraft designers and educators who already possess a fundamental understanding of flight test principles and practices. The course content is also appropriate for civilian, military and academic researchers.

Fundamental Avionics

Instructor: Albert Helfrick

This course is not currently
scheduled.

Interested in bringing this course
to your company? Contact Marina
Enclarde, Business Development
Manager at 913-897-8781 or
professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

AAC

Description

This course provides a broad overview of avionics – from the historical evolution of the avionics industry and the international regulatory environment to the legacy systems still in use to the latest state-of-the-art systems. Focusing on the avionics environment, systems communications and the unique language of avionics, students will be able to assess the operational characteristics of avionics systems, analyze radio-based systems for problems associated with propagation and interference, locate and employ appropriate documents required for certification of avionics systems and calculate basic parameters used in electronic communications, navigation and surveillance systems.

Who should attend?

This course is for engineers and technicians involved with avionics but may not have attended formal courses in avionics. It would also suit those who work in a specific area of avionics and who would benefit from learning the latest developments in areas outside of their discipline or a brush-up on basics.

Fundamentals of V/STOL Rotorcraft

Instructor: Harold Rosenstein

ORLANDO, FLORIDA

October 18 – 21, 2021
Monday – Thursday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate –
register and pay by Sept. 3, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

FT

Description

This course will present key aspects of vertical flight and rotorcraft challenges through a review of the historical evolution, basic principles and enabling technologies. It will cover the fundamental principles underlying rotorcraft flight, flight performance, rotor limitations, configurations and conceptual design. Emphasis is placed on relating rotorcraft aerodynamics to airplane aerodynamics for those making the transition.

Who should attend?

This course is designed for engineers, engineering managers, pilots, administrators and educators who are involved in rotary wing design, testing, evaluation or other technical aspects. The course is also suitable for entry-through intermediate-level students, engineers and pilots who are new to the industry.

“With 50 years of experience and knowledge gained from working in the industry, Mr. Rosenstein provided invaluable information, starting from the very basics of V/STOL rotorcraft to producing a raw design that is sound and viable.”

– David Bates, Technology Investment Manager (2019 San Diego attendee)

Future Propulsion Systems and Energy Sources in Sustainable Aviation

Instructor: Saeed Farokhi

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021
Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by July 30, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

This course is not assigned to a
certificate track.

Description

This course explores developing propulsion systems and energy sources to support future sustainable air transportation. Students will review the impact of air transportation on the environment and explore new technology development for sustainable aviation including innovations in alternative jet fuels, hybrid electric, all-electric and nuclear propulsion power. Students will examine modern propulsion for transonic and supersonic-hypersonic aircraft and the impact of propulsion on aircraft design. They will review major advances in the field that will provide performance enhancement, revolutionize design configurations and ensure the long-term viability of sustainable power.

Who should attend?

Propulsion and power technologists, practicing engineers in aircraft industry, engineers at NASA, FAA, DoD and DOE Labs, engineering faculty, mechanical, aerospace, industrial and power engineering. Engineering students, undergraduates, graduate students and postdocs, government officials working in aviation and decision makers working on policies dealing with the future of aviation should also attend.

High-Intensity Radiated Fields (HIRF) Certification and Compliance

Instructors: C. Bruce Stephens, Darren L. Stout (This course may be taught by either instructor.)

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021

Monday – Thursday

8 a.m. – 4 p.m.

Friday, 8 – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by July 30, 2021)

CEUS

31.5 classroom hours

3.15 CEUs

DISCOUNTS

CERTIFICATE TRACKS

AMS, AAC, EME, AC

Description

This course presents design concepts required to ensure all aspects of aircraft HIRF electrical wiring, installations and aircraft-level systems are safe for operation. Students will review the typical HIRF certification process and examine all steps used by aircraft OEMs to demonstrate compliance to HIRF regulations. Students will utilize 14 CFR Part 25, Section 25.1317 *High-intensity Radiated Fields (HIRF) Protection* to determine how HIRF requirements relate to different areas of the aircraft. They will analyze bench testing related to DAL A criticality system rig data and implement safety aspects for HIRF. Students will also review HIRF requirements for aircraft maintenance and inspection. Student teams will simulate the HIRF certification process.

Who should attend?

The course is designed for all aircraft design areas including electrical and avionics, along with HIRF engineers, laboratory and aircraft technicians. Aircraft managers and project engineers working in electrical/avionics related areas should also attend.

Instructions for Continued Airworthiness Using Enhanced Zonal Analysis Procedure (EZAP)

Instructors: C. Bruce Stephens, Thomas N. Taylor (This course may be taught by either instructor.)

SEATTLE, WASHINGTON

April 12 – 14, 2021

Monday – Wednesday

8 a.m. – 4 p.m.

FEE

\$1,995 (\$1,895 early rate – register and pay by Feb. 26, 2021)

CEUS

35 classroom hours

3.5 CEUs

DISCOUNTS

CERTIFICATE TRACK

EWIS

Description

This course will discuss the Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) rule. This rule requires design approval holders (DAH) and applicants to develop instructions for continued airworthiness (ICA) consisting of maintenance and inspection tasks, intervals and procedures for the representative airplane's electrical wiring interconnection systems (EWIS) for each affected type design.

Who should attend?

The course is designed for all aircraft design areas including electrical, avionics, EWIS and HIRF/lightning engineers and aircraft technicians. Maintenance and inspection managers, operators and aircraft managers should also attend.

 This course was very informative with a lot of great information regarding regulatory definitions, implementation and recommendations. The best take-away is the extreme importance and emphasis on safety and wiring/systems (how they are installed, the history of problems).

– Adrienne Meyers, Maintainability Engineer III (2019 Seattle attendee)

Integrated Modular Avionics (IMA) and DO-297

Instructor: Jeff Knickerbocker

SEATTLE, WASHINGTON

April 15, 2021
Thursday, 8 a.m. – 4 p.m.

FEE

\$945 (\$845 early rate – register and pay by Feb. 26, 2021)

CEUS

7 classroom hours
.7 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AAC, AC

Description

This course provides the fundamentals for developing and integrating IMA systems, using TSO-C153 (Integrated Modular Avionics Hardware Elements), FAA Advisory Circular 20-170 (Integrated Modular Avionics Development, Verification, Integration and Approval Using RTCA/DO-297 and Technical Standard Order C153) and DO-297 (Integrated Modular Avionics (IMA) Development Guidance and Certification Considerations). Discussions and in-class activities further enhance the learning process.

Who should attend?

This course is designed for developers and integrators of integrated modular avionics systems. The focus will be on identifying challenges with IMA and satisfying the regulatory guidance.

COMBINE COURSES AND SAVE!

Receive a 20% discount when you take both **Complex Electronic Hardware Development and DO-254** and **Integrated Modular Avionics (IMA) and DO-297**. Add both courses to your shopping cart, and enter the promo code **DOCOMBO** when you checkout.

Introduction to Electromagnetic Effects (EME) and Aircraft Engineering Requirements

Instructors: C. Bruce Stephens, Darren L. Stout (This course may be taught by either instructor.)

KANSAS CITY

April 26 – 30, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

CEUS

31.5 classroom hours
3.15 CEUs

FEE

\$2,695 (\$2,495 early rate – register and pay by Mar. 12, 2021)

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AMS, AAC, EME

Description

This course will provide participants with an understanding of electromagnetic effects related to aircraft engineering requirements, FAA certification requirements, testing requirements for both DO-160 bench testing and aircraft level testing related to EMC/P-Static/ESD/TPED's/HIRF/EWIS and lightning.

Who should attend?

The course is designed for all aircraft design areas including certification engineers and managers, electrical, avionics, HIRF and lightning engineers, DO-160 laboratory and aircraft technicians. Aircraft managers, project engineers and all other system engineers working in electrical/avionics/HIRF/lightning/EWIS-related areas should also attend.

“This course was very helpful in making the correlation between DO-160 testing, electrical bonding, P-static and FAA regulations.”

– 2019 San Diego attendee

Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance

Instructors: Franklin L. Cummins, C. Bruce Stephens (This course may be taught by either instructor.)

KANSAS CITY

April 26 – 30, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Mar. 12, 2021).

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AMS, EME, AC, EWIS

Description

This course provides details on all elements of fuel tank design needed for compliance with the regulation with specific emphasis on electrical design aspects. Some review of regulatory history and 25.981 [25-102] is included for reference and TCA, STC work. Specific design implementations are examined and evaluated. The course will also include a high-level overview of electromagnetic effects and compatibility (EME/EMC), lightning effects (direct and indirect), high intensity radiated fields (HIRF), precipitation static (P-static), electrical bonding requirements and requirements for electrical wiring interconnection system (EWIS).

Who should attend?

This course is designed for all design engineering disciplines, project managers, project engineers and laboratory personnel whose aircraft system may require protection of the airplane's fuel system from ignition/explosion.

MIL-STD Qualification: Purpose, Testing and Design Considerations

Instructors: Tom Cash and Kevin Renew

SAN DIEGO, CALIFORNIA

September 7 – 10, 2021
Tuesday – Friday
8 a.m. – 4 p.m.

FEE

\$2,195 (\$2,395 early rate – register and pay by July 23, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AAC, AC

Description

This class is designed to educate program managers, system engineers, design engineers and test engineers/technicians about U.S. military standard-oriented environmental, electromagnetic interference and power quality testing, with the goal of obtaining an airworthiness certification. The course will acquaint personnel involved in new military aircraft efforts or the modifications of existing military aircraft with information about the required testing. It will assist system and design engineers to develop equipment designs that are robust enough to pass the Military Standard testing and test engineers to properly design test plans for their equipment. Program managers will become aware of the time necessary to accomplish this testing.

Who should attend?

This course is designed to benefit any program manager, systems engineer, design engineer and/or test personnel who are or may become involved in the design and manufacturing of any items for which an airworthiness certification is desired.

Operational Aircraft Performance and Flight Test Practices

Instructor: Mario Asselin

ORLANDO, FLORIDA

October 18 – 22, 2021
Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by Sept. 3, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

FT

Description

This course provides an overview of airplane performance theory and prediction, certification standards and basic flight test practices. The course will focus on turbojet/turbofan powered aircraft certified under JAR/CAR/14 CFR Part 25. This standard will briefly be compared to military and Part 23 standards to show different approaches to safety, certification, operational and design differences. This course will briefly touch on hybrid-electric propulsion.

Who should attend?

This course is designed for aeronautical engineers in the design or flight test departments, educators, aircrews with engineering background and military personnel involved in managing fleets of 14 CFR Part 25 (FAR 25) certified aircraft.

“This was an excellent course. I came in with a desire to improve my knowledge of flight test engineering, but I am leaving with more enthusiasm about being an aircraft performance engineer. Thank you for the spark to explore taking my career in a different direction.”

– 2019 Kansas City attendee

Operational Test and Evaluation: User-Centric Systems Testing

 **AVAILABLE ONLINE**

Instructors: George Cusimano and Kent Nelson

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021
Monday – Friday
8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by July 30, 2021)

CEUS

35 classroom hours
3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

FT

Description

This course is designed to introduce students to the language, processes and assorted tools to estimate, plan, accomplish risk assessment, conduct, analyze and report on operational tests. It focuses on the challenges of safe and effective OT&E of ground support elements, aerospace vehicles, on-board systems, human-system interaction issues and logistics suitability.

The course focuses mainly on military systems but is equally applicable to commercial systems.

Who should attend?

This course is designed specifically for operators, maintainers, engineers and other support personnel. It is also appropriate for those personnel involved in planning, provisioning, conducting, reporting and supporting operational test activities. The course is applicable for military and civilian students as well as academic researchers. It may also be beneficial to those involved in writing user requirements or those involved with defining new system concepts based on market analysis.

Principles of Aeroelasticity

Instructor: Thomas M. Hermann

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by July 30, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

FT, AD

Description

This course is designed to provide a qualitative understanding of aeroelastic behavior for aerospace vehicles. The class will explore different forms of aeroelastic phenomena and associated issues in structural dynamics and aerodynamic-structure interaction. Topics include solution methodologies, computational methods for aeroelastic analysis, development of the operational flight boundary, aeroservoelasticity and contemporary topics such as limit cycle oscillations and related nonlinear pathologies in aeroelastic systems. The class addresses practical issues such as ground and flight tests. The course material will require selected study of the essential equations.

Who should attend?

This course is designed for engineers and technical managers involved in aerospace vehicle design, analysis and testing related to aeroelastic response and stability issues. The level of class instruction is appropriate for engineers and managers with an undergraduate degree in engineering.

Principles of Aerospace Engineering

Instructor: Wally Johnson

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by July 30, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACK

AD

Description

This course provides an overview and integrated exposure to airplane aerodynamics, performance, propulsion, flight mechanics, mass properties, structural dynamics, aeroelasticity, structures and structural loads, ground testing, flight testing and certification. Examples to support the lecture are provided using basic aerospace engineering software. This course demonstrates the relationship between aircraft certification requirements, engineering analysis and testing.

Who should attend?

This course is intended as an overview for engineering professionals whose degree is not in aerospace, managers, and military and government personnel involved in aircraft design and certification.

Process-Based Management in Aerospace: Defining, Improving and Sustaining Processes

Instructor: Michael Wallace

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

35 classroom hours
3.5 CEUs

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

This course covers foundational principles and the tools and techniques of Process Based Management (PBM) and delineates the strategies for successful implementation of PBM in an aerospace organization. Course content focuses on how to depict an enterprise process view, develop process measures, define key components and identify critical success factors to maintain the focus on priority requirements for managing processes to achieve sustainable performance improvements. The course includes how these concepts fit with and support Lean, Six Sigma, Total Quality Management and the Toyota Production System. Several aerospace organizational case studies are used to augment the theoretical components.

Who should attend?

This course is designed for managers, engineers, quality, IT and planning professionals in the aerospace industry who are responsible for the identification, implementation and improvement of existing organizational processes and the development of new processes necessary to compete in the future.

Project Management Fundamentals for Aerospace Professionals

Instructor: Herbert Tuttle

KANSAS CITY

April 26 – 29, 2021
Monday – Thursday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate – register and pay by Mar. 12, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

This course is designed to familiarize aerospace professionals with current project management techniques. Topics discussed include selecting the project team, identifying the functions of a project team and management team, integration of project management, work breakdown structures, interfaces, communications and transfers, estimating and planning, risk and challenges for the project manager, alternative organizational structures, and control and planning of time, money and technical resources. Course attendees are asked to bring a current project management problem from your team or organization. During class you will work on developing a reasonable solution and a project plan to accomplish it.

Who should attend?

This course is designed for engineers and other technical professionals at all levels, along with new project managers responsible for small-large and long-duration projects. This course is best suited for people who are new to project management and current project managers who want to hone their management skills.

Propulsion Systems for UAVs and General Aviation Aircraft

Instructor: Ray Taghavi

KANSAS CITY

April 26 – 30, 2021

Monday – Friday

8 a.m. – 4 p.m.

FEE

\$2,695 (\$2,495 early rate – register and pay by Mar. 12, 2021)

CEUS

35 classroom hours

3.5 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AD, UA

Description

This course provides an in-depth understanding of the state-of-the-art propulsion issues specific to UAVs and general aviation aircraft including propulsion options, cycle analysis, principles of operation, systems, components, performance and efficiencies.

Who should attend?

This course is designed for propulsion engineers, aircraft designers, aerospace industry managers, educators and research and development engineers from NASA, FAA and other government agencies.

“Excellent introductory course or refresher for aeronautical engineers with no or minimal previous exposure to general aviation power plants and accessory systems.

– 2019 Kansas City attendee

The Regulations of Maintenance

Instructor: Ric Peri



ORLANDO, FLORIDA

October 21 – 22, 2021

Thursday – Friday

8 a.m. – 4 p.m.

FEE

AEA member/gov't employee
\$599

Non-member \$1,099

This course is offered by the Aircraft Electronics Association (AEA) in partnership with KU Aerospace Short Courses. For more information about this course and to register, visit www.aea.net, and click on Training > Courses.

Description

Understanding the regulations of the repair station is only part of the equation. Like pieces of a puzzle, each regulation fits together to provide a full view of the repair station's requirements. Understanding the regulatory relationship between the business (Part 145), the maintenance it performs (Part 43), the parts it uses (Part 21) and the needs of customers (Part 91) are essential to provide regulatory compliant services in aviation maintenance. This session will cover the basics of the maintenance and modification regulations; more importantly, it focuses on their integrated relationship with the business.

Who should attend?

This course is intended for anyone who has a need to be thoroughly familiar with the Federal Aviation Regulations applicable to repair stations and aviation maintenance as is required by Subpart D to 14 CFR Part 145. In addition, this course provides a refresher for repair station owners, accountable managers and quality control managers with responsibility for the repair stations processes and procedures who have previously attended the 5-day AEA Certified Repair Station Training course.

Software Safety, Certification and DO-178C

Instructor: Jeff Knickerbocker

KANSAS CITY

April 26 – 29, 2021

Monday – Thursday
8 a.m. – 4 p.m.

FEE

\$2,395 (\$2,195 early rate –
register and pay by Mar. 12, 2021)

CEUS

28 classroom hours
2.8 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AAC, AC

Description

This course provides the fundamentals for developing and assessing software to the standard RTCA DO-178B and DO-178C Software Considerations in Airborne Systems and Equipment Certification as well as associated RTCA DO-178C supplements in DO-330, DO-331, DO-332 and DO-333. Similarities and differences to RTCA DO-278A for CNS/ATM equipment will also be addressed. The course also provides insight into the FAA's software review process, the FAA's software policy, practical keys for successful software development and certification, common pitfalls of software development and software challenges facing the aviation community. Practical exercises and in-class activities will further enhance the learning process.

Who should attend?

This course is designed for software developers, avionics engineers, systems integrators, aircraft designers and others involved in development or implementation of safety-critical software. The focus is on civil aviation, certification and use of RTCA DO-178C; however, the concepts may be applicable for other safety domains, such as military, medical, nuclear and automotive.

Stress Analysis for Aerospace Structures

Instructor: Dennis Philpot

This course is not currently
scheduled.

Interested in bringing this course
to your company? Contact Marina
Enclarde, Business Development
Manager at 913-897-8781 or
professionalprograms@ku.edu.

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷 🍁

CERTIFICATE TRACKS

AD, AS

Description

Students will review the theoretical foundation of stress analysis, including the practice of classical “hand” analysis techniques, along with modern numerical/computational methods used in industry. Once students understand the theory behind the analysis process, they will be able to translate principles into practical applications that can immediately be put into practice in the workplace. Students will be able to identify and correct problematic designs based on stress analysis results, calculate margins of safety due to various types of loading conditions, assess structures based on material strength, brittle fracture and fatigue criteria, analyze bolted joints under preload, tension, shear and combined loading, optimize designs for greater efficiency and/or performance and speak knowledgeably about structural integrity to customers and management.

Who should attend?

This class benefits design engineers who would like to become more familiar with the techniques and modern practices of stress analysis to help them be more efficient and productive. It is also ideal for mechanical engineers who have been out of college for a while and need to become more knowledgeable in the area of stress analysis due to a job assignment or career opportunity that requires analyzing structures. Department managers whose staff are involved in stress analysis work should also attend.

Structural Composites

Instructor: Max Kismarton

SEATTLE, WASHINGTON

April 12 – 16, 2021
Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by Feb. 26, 2021)

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACK

AS

Description

This course provides an introduction to high-performance composite materials, covering both engineering and manufacturing of composite parts and assemblies, basic material properties of the constituents (fiber and matrix), how they combine to form plies, or lamina, how to obtain lamina properties, how laminae are combined to form laminates and how to obtain the laminate properties. Other engineering topics include stress analysis, failure criteria and testing methods. Case studies and lessons-learned will be discussed. Design using composites will include material selection, lamination rules of thumb, weight analysis, fabrication process description, tool design and preliminary cost and production rate analysis.

Who should attend?

The course has proven very helpful to those wanting a broad overview and/or intensive intervention in composites, experienced engineers looking for a refresher course and stress engineers wanting to understand how composites work or fail and what to look out for when analyzing parts, data and margins. It is useful for practicing engineers and managers with metal experience wishing to expand their skill set, anyone new to the field and engineering teams embarking on new projects involving composites.

System Safety Assessment for Commercial Aircraft Certification

 **AVAILABLE ONLINE**

Instructor: Pierre Trudel

SEATTLE, WASHINGTON

April 12 – 16, 2021

SAN DIEGO, CALIFORNIA

September 13 – 17, 2021

Monday – Thursday
8 a.m. – 4 p.m.
Friday, 8 a.m. – 11:30 a.m.

FEE

\$2,695 (\$2,495 early rate –
register and pay by Feb. 26, 2021
[Seattle] or July 30, 2021 [San
Diego])

CEUS

31.5 classroom hours
3.15 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

AC, AMS, AAC, EWIS

Description

This course develops the skills necessary to write and review system safety assessments for regulatory compliance to 14CFR 2X.1309 and 23.2510. Class participants are guided through the evolution of the safety rule and specific techniques for compliance through a comprehensive look at the regulations and current regulatory guidance. In-depth reviews of industry standards in system safety such as SAE ARP4761 and SAE ARP4754A and ASTM F3230-17 followed by exercises, examples and class discussions strengthens the students understanding of safety for compliance. By the end of the class, students gain the ability to develop meaningful system safety requirements, design safety compliant systems and equipment and improve their skills in developing system safety compliance documentation.

Who should attend?

This course is intended for anyone involved in the regulatory compliance aspects of system safety. It is specifically designed for Parts 23, 25, 27 and 29 system certification engineers, system designers, FAA Designated Engineering Representatives (DERs), ODA Unit Members (UM), system safety engineers, engineering leadership and military personnel procuring civil equipment.

Systems and Safety for Electric/Hybrid Electric Aircraft and Urban Air Mobility **NEW COURSE**

Instructor: James Lawson

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

21 classroom hours
2.1 CEUs

DISCOUNTS ★ 🍷

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

Electric and hybrid-electric technologies and autonomy pose a unique set of challenges. Nevertheless, using these technologies, the opportunity exists to create novel fault tolerant and redundant architectures. In this course, students gain practical knowledge of the certification approach afforded by Part 23 Amendment 64 applied to non-traditional aircraft types. Students will consider the application of industry consensus standards for electrical propulsion systems, energy storage systems and sense and avoid. They will recognize different techniques for the creation of safety process artifacts, including Functional Hazard Analysis (FHA), Fault Tree Analysis (FTA), Failure Modes and Effects Analysis (FMEA) and Failure Modes Effects Summary (FMES), and how these might be performed on a complex electric or hybrid-electric aircraft that could incorporate vertical takeoff and landing capabilities. Throughout the course, agile techniques are considered in order that the safety process can guide the design and development of the aircraft.

Who should attend?

This course is designed for Part 23 and Part 33 systems/safety and certification engineers and those involved in the certification of electric and hybrid-electric non-traditional aircraft types. The course assumes a basic understanding of the safety process and certification of a type design aircraft and caters to those wishing to achieve an advanced understanding of how the processes might be adapted to non-traditional aircraft types.

Transport Category Airplane Emergency Evacuation Demonstration and Analysis

Instructor: Jose Mora-Vargas

This course is not currently scheduled.

Interested in bringing this course to your company? Contact Marina Enclarde, Business Development Manager at 913-897-8781 or professionalprograms@ku.edu.

CEUS

28 classroom hours
2.8 CEUs

CERTIFICATE TRACKS

This course is not assigned to a certificate track.

Description

This course provides basic knowledge of FAA/EASA regulations, advisory material and development of emergency evacuation test plans/analyses for specific cabin interior layouts. Current analysis methodology is described, and the basic foundation to develop simulation models is presented. Students will conduct emergency evacuation analyses for two cabin interior configurations.

Prerequisites: A background in crashworthiness and cabin safety is desirable.

Who should attend?

Airframe manufacturers, transport category aircraft completion center personnel and cabin safety/crashworthiness designees. This course would also be beneficial for independent cabin safety consultants and cabin interior arrangement specialists.

HOW TO REGISTER

To Register Online

Create a profile

1. Access the Lifelong & Professional Education (LPE) online registration system: www.enrole.com/kupce
2. Click on the blue CREATE PROFILE button. Complete all information, then click the red Submit button at the bottom of the page.

Sign-in (if you have previously created a profile)

1. Access the LPE online registration system: www.enrole.com/kupce
2. Click on the Create Profile/Sign In (left navigation bar).
3. Enter your email and password.
4. Click the blue Sign in button.

Select your course.

1. Click on Aerospace (left navigation bar or box at the top of the page).
2. Scroll down to review the complete list of Aerospace Short Courses and choose the course you want to attend.
3. Click on the available session (course dates and location) you would like to attend. To register for the session, click the red Add to Cart button at the bottom of the page.
4. Under Shopping cart, you should see your course, the dates and location, the price and a blue box with your name in it below this information.

Do you have a promo (discount) code?

If you have a promo code (for example, the U.S. Federal government employee discount code), enter that code in the Promo Code box, then click the red Promo Code button. You will see the discounted amount and the total price should reflect the discount.

Checkout and pay

1. Click the red Checkout button.
2. You may ignore the boxes under Billing Information, and click the red Next button.
3. Under Summary Review, please review your order including the class name, dates, location and price. If correct, click the red SUBMIT ORDER button.
4. Enter your credit card information and click the green Continue button.
5. Once your payment is processed, you will receive an emailed receipt.
6. You will also receive a Registration Confirmation email with an attachment that includes

important details about the session for which you have registered.

7. Please note that Registration Confirmations are run at specific times during the day, so you may not receive this confirmation immediately. If you do not receive a Registration Confirmation within 24 hours of registering, please contact us at LPE@ku.edu.

Register By Mail

1. Select a course.
2. Download the registration form (PDF) from our website or use the form on page 39 of this catalog.
3. Complete the form and attach a check or money order payable to University of Kansas. Please reference LPE on your check.
4. Mail the form and payment to:
KU Lifelong & Professional Education
Contact Center
12600 Quivira Road
Overland Park, KS 66213 USA

Register By Phone

Please contact us at 913-897-8530.

Payment

All fees are payable in U.S. dollars and due upon registration.

Payment by credit card

Online registrations must be paid by credit card. KU accepts MasterCard, VISA, Discover and American Express.

Payment by check (personal or company check) or money order

Please mail your registration form and a check or money order in U.S. dollars to the address listed above. Make your check or money order payable to "The University of Kansas". Please reference LPE on the check. A \$30 fee will be charged for returned checks.

Payment by purchase order or wire transfer

KU Lifelong & Professional Education requires payment upon registration. If your organization requires use of a purchase order before payment is issued or must pay by wire transfer, please contact us at LPE@ku.edu. Please note that to receive the Early Registration Discount, full payment will be required before the early registration deadline as listed on each course page. After the deadline, your registration may be canceled and you can enroll again at the regular course fee.

POLICIES

Audio or Video Recording

Audio or video recording is not permitted in the classroom.

Cancellation Policy

KU Lifelong & Professional Education reserves the right to cancel a course and return all the registration fees in the event of insufficient registrations, inclement weather or other unforeseen circumstances. The liability of the University of Kansas is limited to the registration fee. The University of Kansas will not be responsible for any losses incurred by a registrant including, but not limited to, airline cancellation charges or hotel deposits.

Public and Online Courses

If you are unable to attend a public or online course, please contact us in writing, and request one of the following options:

Send a substitute – contact us at LPE@ku.edu and provide complete contact information for your substitute.

Transfer to another course – you have one year from the original course date to complete another scheduled short course. Contact us at LPE@ku.edu to complete the course transfer.

Request a refund – contact us at LPE@ku.edu. Cancellations made up to five days prior to the course start date are subject to a \$250 cancellation fee. Cancellations made less than five days prior to the start of a course are not eligible for a refund.

Please note that if you fail to cancel and do not attend a public or online course, you are responsible for full payment of the registration fee.

Certificate of Attendance

A certificate of attendance is awarded to each participant. The certificate is accessible through our online registration system.

CEUs

Continuing Education Units (CEUs) are assigned to each course and are listed on each course page. CEUs may not be used for college credit.

Course Materials

The course materials (course notes) are for participants only and are not for sale. Reproduction or redistribution of course materials is strictly prohibited.

Course Schedule

KU Lifelong & Professional Education and/or its instructors reserve the right to adjust course outlines, schedules and/or materials. Course times and total hours are approximate and may be adjusted by the instructor(s) as the situation warrants.

Instructor Substitution

KU Lifelong & Professional Education reserves the right to substitute an equally qualified instructor in the event of faculty illness or other circumstances beyond its control.

Nondiscrimination Policy

The University of Kansas prohibits discrimination. Specifically, the University of Kansas prohibits discrimination on the basis of race, color, ethnicity, religion, sex, national origin, age, ancestry, disability, status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression and genetic information in the University's programs and activities. The following persons have been designated to handle inquiries regarding the non-discrimination policies: for the Lawrence, Edwards, Parsons, Yoder and Topeka campuses, contact Executive Director of the Office of Institutional Opportunity and Access, IOA@ku.edu, 1246 W. Campus Road, Room 153A, Lawrence, KS, 66045, (785)864-6414, 711 TTY. For the most current information on this subject, visit <https://policy.ku.edu/IOA/nondiscrimination>.

Privacy Policy

KU Lifelong & Professional Education does not share, sell or rent its mailing lists. You have our assurance that any information you provide will be held in confidence by KU Lifelong & Professional Education.

Program Accessibility

Individuals with disabilities are encouraged to attend University of Kansas sponsored events. If you require a reasonable accommodation in order to participate in a course or event, please contact us at professionalprograms@ku.edu or 913-897-8457 at least four weeks in advance of the course or event.

Returned Check A \$30 fee will be charged for returned checks.

CATALOG INDEX

	PAGE
A	
Advanced Avionics.....	10
Advanced Flight Tests.....	10
Aerodynamic Design Improvements: High Lift and Cruise	11
Aerodynamic Design of Commercial Airplanes.....	11
Aerospace Applications of Systems Engineering.....	12
Aircraft Avionics Test and Evaluation Fundamentals NEW COURSE	12
Aircraft Electronics Association course.....	32
Aircraft Icing: Meteorology, Protective Systems, Instrumentation and Certification.....	13
Aircraft Lightning: Requirements, Component Testing, Aircraft Testing and Certification.....	13
Aircraft Propulsion Systems: Principles and Practices	14
Aircraft Structural Loads: Requirements, Analysis, Testing and Certification.....	14
Aircraft Structures: Analysis and Design	15
Airplane Flight Dynamics.....	15
Airplane Preliminary Design.....	16
Application of Human Factors Engineering to the Life Cycle Management of Aeronautical Products and Systems.....	16
C	
Cabin Safety and Crashworthiness of Aircraft Cabin Interiors.....	17
Certificates of Specialization.....	8-9
Civil and Military Certification of Propulsion Systems to Support Aircraft and Helicopter Operations.....	17
Complex Electronic Hardware Development and DO-254.....	18
Conceptual Design of Unmanned Aircraft Systems	18
Course Descriptions	10-35
Cybersecurity Fundamentals for Aerospace Design, Engineering and Operations.....	19
D	
Dynamics for Aerospace Structures	19
E	
Electrical Wiring Interconnection System (EWIS) and FAA Requirements.....	20
Electrical Wiring Interconnection System (EWIS) Safety Assessment – 25.1709.....	20
Electromagnetic Effects Aircraft Level Testing and FAA Requirements	21
F	
FAA Aircraft Certification and Airworthiness Approvals	21
FAA Type Certification Process.....	22
FAA Type Certification Plan Development	22
Flight Control and Hydraulic Systems	23
Flight Test Principles and Practices	23
Flight Testing Unmanned Aircraft Systems – Unique Challenges	24
Fundamental Avionics.....	24
Fundamentals of V/STOL Rotorcraft	25
Future Propulsion Systems and Energy Sources in Sustainable Aviation.....	25

	PAGE
H	
High Intensity Radiated Fields (HIRF) Certification and Compliance	26
History of Airplane Design webinars	2
How to register	36
I	
Instructions for Continued Airworthiness using Enhanced Zonal Analysis Procedure (EZAP)	26
Integrated Modular Avionics (IMA) and DO-297	27
Introduction to Electromagnetic Effects (EME) and Aircraft Engineering Requirements.....	27
Introduction to Fuel Tank Safety and Ignition Prevention: Design, Certification and Compliance.....	28
M	
MIL-STD Qualification: Purpose, Testing and Design Considerations.....	28
O	
Online Learning.....	2
Operational Aircraft Performance and Flight Test Practices.....	29
Operational Test and Evaluation: User-Centric Systems Testing	29
P	
Policies.....	37
Principles of Aeroelasticity	30
Principles of Aerospace Engineering	30
Process-Based Management in Aerospace: Defining, Improving and Sustaining Processes.....	31
Project Management Fundamentals for Aerospace Professionals.....	31
Propulsion Systems for UAVs and General Aviation Aircraft.....	32
Public courses information	3
Public courses schedule	4-5
R	
Registration form.....	39
Registration – how to register.....	36
Roskam, Jan – History of Airplane Design webinar series.....	2
S	
Software Safety, Certification and DO-178C.....	33
Stress Analysis for Aerospace Structures.....	33
Structural Composites	34
System Safety Assessment for Commercial Aircraft Certification	34
Systems and Safety for Electric/Hybrid Electric Aircraft and Urban Air Mobility NEW COURSE	35
T	
Transport Category Airplane Emergency Evacuation Demonstration and Analysis.....	35
W	
Webinars – previously broadcast	2

AEROSPACE SHORT COURSES

2021 REGISTRATION FORM

Easy Ways to Register

Online aeroshortcourses.ku.edu

Phone 913-897-8530

TDD 800-766-3777

Mail Complete the registration form and mail with payment to:

KU Lifelong & Professional Education Aerospace Short Courses
12600 Quivira Road
Overland Park, KS 66213 USA

1

Please print. If your mailing address requires a different format than indicated here, please use that format and ignore the printed guidelines.

Full name (first, middle initial, last name or surname, suffix)

Email address (Your confirmation letter and receipt will be sent to this email address.)

Company or organization

Position/job title

Mail stop, building or room number (if needed)

Street address or post office box Home Work

City, state or province

Zip+four or postal code


Country

Daytime phone

Alternate/evening phone

Are you a US Citizen? Yes No If no, country of citizenship: _____

I am an international attendee who requires a VISA letter from KU Aerospace Short Courses.

 If you require a reasonable accommodation in order to participate in this event, please contact us at 913-897-8530 or professionalprograms@ku.edu at least four weeks in advance.

2

Please register me for the following course:

Course Name

Dates

Location

3

FEES (Registration fees are listed on each course page. Please check the course page online at aeroshortcourses.ku.edu or in the Course Catalog.)

Early registration fee (must be paid before the published early registration deadline)

Regular registration fee

I am a U.S. federal employee requesting the federal discount (10% off the registration fee). Enter discount code (required): _____

4

PAYMENT

Amount due \$ _____

Check enclosed, payable in U.S. dollars, to **The University of Kansas**.

Please call the KU registration office at 913-897-8530 to pay by credit card.

Note: KU's business hours are 8:00 a.m.–5:00 p.m. CDT, Monday-Friday. If paying by credit card, you may opt to register and pay online at aeroshortcourses.ku.edu.

Payment by Purchase Order or Wire Transfer

The University of Kansas requires payment upon registration. If your organization requires the use of a purchase order before payment is issued, or if you must pay by wire transfer, please contact the Registration Center at LPE@KU.EDU. Please note that to receive the Early Registration Discount, full payment will be required before the early registration deadline as listed on each course page. After the deadline, your registration will automatically be canceled and you can enroll again at the regular course fee.

AEROSPACE SHORT COURSES

Learning is ongoing.

KU Aerospace Short Courses makes it easy to get the education you need to succeed.

Learn online.

Convenient virtual classroom-style delivery. New online classes available now.

Learn where you work.

Short courses delivered at your workplace, on your team's schedule.

Learn in the classroom.

Learn & network at our traditional annual training locations – Seattle, KU in Kansas City, San Diego and Orlando.

aeroshortcourses.ku.edu

LOOK INSIDE FOR...

Exciting new courses...

- Cybersecurity for Aerospace Design, Engineering and Operations
- FAA Type Certification Process and FAA Type Certification Plan Development
- Systems and Safety for Electric/Hybrid-Electric Aircraft and Urban Air Mobility

And traditional favorites...

- System Safety Assessment for Commercial Aircraft Certification
- FAA Aircraft Certification and Airworthiness Approvals
- Flight Test Principles and Practices

So much more! Register today!

aeroshortcourses.ku.edu