

# AEROSPACE

## SHORT COURSES

### **Safety Management Systems (AERO0730)**

**Instructor: Gary Ullrich**

#### **Course Description**

This course provides an in-depth exploration of Safety Management Systems (SMS), a formal, organization-wide framework for managing safety risk and ensuring the effectiveness of safety risk controls. Recognized as an international best practice, SMS promotes a proactive and systematic approach to identifying hazards and managing safety in aviation and other industries.

Students will examine the key components of SMS, including safety policy, risk management, safety assurance, and safety promotion. Emphasis will be placed on the practical application of SMS principles to enhance organizational safety culture, comply with regulatory requirements, and align with the International Civil Aviation Organization's (ICAO) State Safety Program (SSP).

Through case studies, interactive exercises, and real-world examples, participants will learn how SMS supports hazard identification, risk analysis, and the development of tailored mitigations for diverse operational environments.

The course also highlights the FAA's role in implementing SMS across U.S. air navigation services and critical segments of commercial aviation.

By the end of the course, students will have the skills to design, implement, and evaluate an effective SMS in any aviation-related organization, ensuring continuous improvement and compliance with global safety standards.

#### **Who Should Attend?**

Aerospace Engineers, Customer Support Engineers, Avionics Technicians, and Safety Managers

#### **Learning Objectives**

- Define SMS and its role in managing safety risks in aviation.
- Understand the four pillars of SMS: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.
- Analyze the regulatory and international framework for SMS, including FAA and ICAO requirements.

- Develop practical strategies for implementing SMS in various operational contexts.
- Evaluate the effectiveness of safety risk controls and recommend improvements.

### **Classroom hours / CEUs**

28 classroom hours

2.8 CEUs

### **Certificate Tracks**

- Air Maintenance and Safety (AMS)

### **Course Fees**

Early registration course fee: \$2,295 if you register and pay by the early registration deadline (45 days out).

Regular registration course fee: \$2,495 if you register and pay after the early registration deadline.

### **Course Materials**

Course materials, including outlines, presentation copies, and supplementary materials, will be accessible through Canvas, KU's online learning system. Instructions to access Canvas will be provided upon completed registration. Students are required to bring a computer or other electronic device with PDF-viewing capabilities with them to class each day. If you require accommodation contact us at [professionalprograms@ku.edu](mailto:professionalprograms@ku.edu) and we will work with you on an accessible solution.

### **U.S. Federal Employee Discount**

This course is available to U.S. federal employees at 10% off the registration fee. To receive the federal employee discount, you must enter the code **FGVT116** during the 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) 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**

This course is 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.

### **Instructor Bio**

Gary M. Ullrich is an associate professor at the University of North Dakota. Gary's extensive safety knowledge spans Safety Management Systems (SMS), Aviation Safety, Aircraft Accident Investigation, Nuclear Safety, Hazardous Materials Management, OSHA compliance, Risk

Management, and Human Factors. Gary served over 20 years in the United States Air Force, holding the crucial role of Chief of Nuclear, Flight, and Ground Safety for an installation with over 12,000 personnel. He ensured the highest safety standards and piloted the Boeing KC-135 globally, with over 20 years of experience in both commercial and military aviation. Gary co-authored a widely used textbook on SMS, covering safety policy, risk management, assurance, promotion, and culture. This resource has significantly contributed to SMS understanding and implementation across various sectors. Additionally, Gary received the John K. Lauber Safety Award, from the International University Aviation Association for his work implementing an FAA Accepted SMS Program. Gary's blend of military and academic experience, coupled with his commitment to safety, positions him as an unparalleled expert in his field. His contributions have enhanced aviation safety protocols and inspired future professionals. Known for his engaging teaching style and personal connection with students, Gary's passion for safety and excellence continues to drive his work, making him an invaluable asset to the aviation community.

**This class is available for delivery at your company.**

Your company can realize substantial savings by bringing an aerospace short course to your workplace. On-site delivery is ideal for organizations that need to train 10 or more employees on a specific topic. For more information on on-site course delivery, or to request a cost proposal, email us at [ProfessionalPrograms@ku.edu](mailto:ProfessionalPrograms@ku.edu).

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Aerospace Short Course Program  
KU Jayhawk Global  
St. Andrews Office Facility  
1515 St. Andrews Dr.  
Lawrence, KS 66047  
Email: [ProfessionalPrograms@ku.edu](mailto:ProfessionalPrograms@ku.edu)

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