



Medical Equipment Airworthiness Testing and Military Certification Process Course

WHAT IS THE OBJECTIVE OF THE COURSE? The students will get a fundamental understanding of the test methods and process required for medical equipment airworthiness certification for military applications.

WHAT IS THE COURSE CONTENT? This course will cover test methods that are generally needed for the airworthiness certification of medical equipment aboard air ambulance rotary-wing and fixed-wing aircraft. The course will provide general technical guidelines on the test planning and execution for multiple types of medical equipment such as cardiac monitors, infusion pumps, ventilators, and defibrillators, to name few. Covered test methods will include, but not limited to, hot temperature, cold temperature, humidity, altitude, crash hazard (pull testing), rotary-wing vibration, fixed-wing vibration, ground vibration, electromagnetic interference emissions and susceptibility, rapid decompression, ballistic vulnerability, explosive atmosphere, sand, dust, rain, and human factors. The course materials will cover securing methods and human factors design considerations to include use of medical devices with night vision devices, night operations, and medical personnel with various medical training backgrounds. Use of patient simulators versus healthy humans for testing will be covered. General risk assessment procedures of test results will be provided with emphasis to air ambulance environment. Certification procedures for military aircraft will be discussed.

WHO SHOULD ATTEND? Any organization intending to sell medical technologies to the U.S. military. Recommended participation includes technicians, engineers, managers, directors, and support personnel involved with research, development, test, evaluation, sales, and marketing of medical technologies that may be used in the military pre-hospital and medical transport environment. Highly recommended for medical device manufacturers and government personnel.

WHAT IS THE COURSE DURATION AND LOCATION? Please check the course schedule and location at www.zymica.com. We highly recommend giving the course at your site so we can tailor the course material to your specific medical product(s).

WHAT ARE THE COURSE PRE-REQUISITES? It is helpful for students to have technical background or education, but it is not necessary.

WHAT IS THE COURSE COST? For more info, visit www.zymica.com. Please reach out to Dr. Barazanji at khalid@zymica.com to discuss on-site costs.

WHO IS THE INSTRUCTOR? **Khalid Barazanji, Ph.D.** Formally, Dr. Barazanji was the chief of Airworthiness Certification and Evaluation (ACE) Branch at the United States Army Aeromedical Research Laboratory (USAARL). He has over 22 years of relevant experience of testing and certifying medical equipment for military use. Dr. Barazanji was responsible for developing the first DoD Joint Airworthiness Certification requirements for medical equipment.