The Development and Certification of Complex Software Intensive Avionics Systems

Training Course

Course Content

The course will address the development, certification and operation of safe avionics systems. It will provide managers and practitioners with an understanding of the tools, techniques, processes and legal requirements pertinent to the development of Avionics Systems.

The course has been tailored to suit both civil and military aviation specialists.

The course has been structured around the construct of a standard systems assurance lifecycle addressing the constituent parts of avionics systems development and approval process.

This will include:

• Approvals and Authorisations
• Role of the Certification Authority
• Application of Avionics Standards and Acceptable Means of Compliance (AMC)
• Certification and Systems and Safety Assurance
• Functional Hazard Analysis (FHA) and architecture for safe avionics
• Preliminary System Safety Assessment (PSSA) and System Safety Assessment (SSA)
• Zonal Hazard Analysis (ZHA)
• Design Assurance and Development Assurance Levels (DAL) allocation and summation, including Function (FDAL) and Item (IDAL)
• Hidden failures and their associated Master Minimum Equipment List (MMEL) impact
• Systems Assurance
• Developing and certifying Software and Complex Hardware for Aircraft Systems using RTCA/DO-178B/C and RTCA DO254
• Assuring Data Quality and Integrity using RTCA DO 200A
• Acceptance, Approval and Through Life Management.

This course provides guidance and explanation supported by practical workshops and presentations on the key concepts associated with the development, certification and approval of complex avionics systems for aircraft, artificial satellites, and spacecraft.
**Academic Approval**
The course is accredited at Master’s level through the University West of England (UWE) and provides delegates with learning credits upon completion of a post course assignment*.

**Assessment**
Delegates will be assessed via open book assessments throughout the week, with continuous monitoring of their involvement and engagement in the group workshops and a final exam.

Tutors for this course are experienced Avionics and Certification specialists from Atkins supported by expert Guest Speakers.

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**The Venue**
Royal Pavilion, Wellesley Road, Aldershot, GU11 1PZ
www.royalpavilionoffices.co.uk

**The Course Cost**
The course is offered on a non-residential basis and will take place in Atkins’ Aldershot office.

**Price per delegate on a Non Residential basis is:**
- MOD: £1,595 (+VAT)
- Industry: £1,745 (+VAT)

Payment via credit/debit or GPC card. If a credit/debit card is used this will incur a 2% service charge.

**Course Dates**
- 22 June – 26 June 2015
- 21 September – 25 September 2015

The course starts with registration on Monday from 08:45 – 09:30. Each of the remaining days start at 08:30 and finish at 17:00. The course finishes by 15:00 on Friday.

**For further information, or to reserve a place please contact Zoë Henderson at course enquiries:**
Telephone: +44 1454 662538 or email: avionics.enquiries@atkinsglobal.com

*Post course assignment incurs additional administration fees.