

Airworthiness Engineering (AWEN)

AWEN 502 Airworthiness Process and Procedures 3 Credits (3,0)

Airworthiness concepts; civil and military structures in aircraft certification; FAA roles and responsibilities; rulemaking, advisory process, production rules, certification procedures, exemptions, special conditions; commercial and military airworthiness approvals; military certification procedures, non-compliance, civil-military risk acceptance.

Course Offered at: Daytona Beach, Worldwide

AWEN 510 Aircraft Airworthiness Engineering Principles 3 Credits (3,0)

Principles of airworthiness requirements for aircraft; flight dynamics; mission operations; maintenance and life cycle environments; MIL-HDBK-516C, JSSG, and Title 14 CFR applications; mission definition, system design, validation, manufacture, and serviceability.

Prerequisites: AWEN 502 and UNSY 500 and SYSE 505

Course Offered at: Daytona Beach, Worldwide

AWEN 552 Continued Airworthiness 3 Credits (3,0)

Principles for ensuring continued airworthiness; maintenance and sustainment actions; airworthiness requirements for modified or upgraded systems; integration into Safety Management Systems (SMS); hazard identification; risk modeling; safety performance indicators.

Prerequisites: AWEN 502 and AWEN 510 and MATH 546 and SYSE 505 and UNSY 500

Course Offered at: Daytona Beach, Worldwide

AWEN 590 Aircraft Airworthiness Capstone Project 3 Credits (3,0)

Airworthiness certification principles applied to aircraft development projects; certification requirements from mission specification to first flight; methods of compliance for crewed and uncrewed systems; project-based airworthiness certification solutions; systems engineering approach.

Course Offered at: Daytona Beach

AWEN 599 Special Topics in Airworthiness Engineering 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in airworthiness engineering.

Course Offered at: Daytona Beach, Prescott, Worldwide

AWEN 690 Graduate Research Project 3 Credits (3,0)

Capstone project in airworthiness certification; project formulation, development, completion; documentation of program outcomes; risk monitoring, safety performance, hazard identification, risk modeling, safety performance indicators as part of SMS.

Prerequisites: AWEN 502 and AWEN 510 and AWEN 552 and UNSY 500 and SYSE 505 and MATH 546

Course Offered at: Daytona Beach, Worldwide

AWEN 699 Special Topics in Airworthiness Engineering 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in airworthiness engineering.

Course Offered at: Daytona Beach, Prescott, Worldwide