ANI
AIR NAVIGATION INSTITUTE

Course Level

Aviation Expert

Statistics and Data Analysis

Duration	2 days	
Tuition Fee	CHF 800 per participant	
Instructors	Dipl Eng. Heinz Wipf	
Certificate	ANI Certificate	

Questions at a glance	Answer
ICAO recognised?	No, there is no such thing as an ICAO recognition for training. ANI is a State-approved training provider and complies with all ICAO training regulations.
Pre-requisites?	Yes. Please see below for details.
Does ANI provide accommodation?	No. Please check the hotel list provided in the location documentation.
Daily schedule?	9.00 - 16.15 or as communicated by the instructor
Venue?	Please check the information in the course calendar.
Mobile Phones?	Absolutely and strictly forbidden in the class!

1. ANI Aviation Expert Courses

The ANI Aviation Expert training courses cover topics that are related to the jobs „Flight Procedure Designer" and „Flight Validation Pilot". These are courses that will add to the skill set of any interested expert in aviation, no matter what field of expertise the expert is coming from.

2. Course Description and Terminal Objectives

In modern aviation data collection is something that is often performed. But collected date need to be analyzed and processed. Finally, outcomes need to be presented to audiences in an understandable form and format.
At the end of the course, the participant knows how to use Microsoft® EXCEL for statistical analysis and is familiar with the built-in mathematical and statistical functions. The participant is able to produce effective graphs. The import of structured ASCII data sets is practiced. Furthermore, the learner will be able to transform data into information that can be communicated to an audience.

3. Course Rundown

• Introduction to statistics and data analysis with Mac or PC.

• One dimensional sample series, histograms, distributions, summary statistics, boxplots, data transformations.

• The learning objectives are elaborated starting with a one dimensional data set, applied step-by-step with hands-on exercises.

• Extension of the one dimensional data set to two dimensions; scattered plots, covariance and correlation, statistical models and linear regression.

• An introduction to sample theory.

• In addition and in parallel, the instructor shows capabilities of a state-of-the-art statistical program for comparison.

• Introduction to time series is given (if time permits).

• Useful literature for further self-study will be recommended.

Time	Day 1	Day 2
9.00 - 12.00	Intoduction	Two-dimensional data
13.15 - 16.15	One-dimensional data	Wrap-up session

4. Target Audience

This course presents an overview, fundamentals, theory and hands-on practise on the participant's own computer. It is aimed at engineers, technical staff, managers, pilots or air traffic controllers with special assignments and development personnel who plan to come to grips with the ever-increasing data available. Anybody with an interest in statistics and data analysis can attend.

5. Pre-requisites

Knowledge: High School Grade Mathematics

Skills: Mac or PC Basics including Microsoft EXCEL

Attitude: Openness and willingness to see things differently