



# DEFENSE ACQUISITION UNIVERSITY

## BCF 206 – COST RISK ANALYSIS

141203

*Course Learning/Performance Objectives followed by its enabling learning objectives on separate lines if specified.*

1	<b>Explain the differences between cost risk analysis and uncertainty analysis as applied to major weapon systems.</b>
	Categorize the various methods used to perform cost risk analyses
	Classify the types of risk faced by defense acquisition programs.
	Illustrate the difference between risk and uncertainty
	Explain the Monte Carlo Simulation process used in cost risk analyses
2	<b>Explain the principles for developing and assessing subjective probabilities</b>
	Demonstrate the imprecision associated with using words to communicate about uncertain quantities
	Assess subjective probabilities using the fixed probability, fixed value and fractile specification techniques.
	Compare the various heuristics used to assess subjective probabilities and the biases that may result.
3	<b>Explain the need to perform goodness-of-fit testing in a cost risk analysis.</b>
	Explain a chi-square goodness-of-fit test. .
	Explain Kolmogorov-Smirnov goodness-of-fit tests.
	Explain Anderson-Darling goodness-of-fit tests.
	Apply the distribution fitting capabilities of a software package.
4	<b>Construct a spreadsheet-based simulation model.</b>
	Describe the steps involved in a simulation study.
	Model the inputs to a spreadsheet-based simulation model with probability distributions.
	Discuss techniques for generating random variates with a specified probability distribution
	Interpret the output from a spreadsheet-based simulation.
	Discuss techniques for generating random numbers.
5	<b>Analyze the cost risk associated with a major defense acquisition program.</b>
	Construct a simulation model to analyze the cost risk for a defense acquisition program.
	Interpret simulation output to describe the variability in expected project cost.
	Prepare a briefing and present the results of the cost risk analysis.