Robert Nau is a Professor of Business Administration in the Fuqua School of Business, where he is a member of the Decision Sciences area. He received his Ph.D. in Operations Research from the University of California at Berkeley in 1981. He has been on the faculty of the Fuqua School since 1985, and he was previously on the faculty of the Freeman School of Business at Tulane University. He has also been a visiting faculty member at INSEAD in Fontainebleau, France.

Professor Nau is an internationally known authority on mathematical models of decision making under uncertainty. His research has been supported by several grants from the National Science Foundation, and his papers have been published in journals such as Operations Research, Management Science, Annals of Statistics, Journal of Economic Theory, and the International Journal of Game Theory. He was a co-recipient (together with Fuqua professor James Smith) of the Decision Analysis Society Best Publication Award in 1995. Some of his recent papers include “Risk, Ambiguity, and State-Preference Theory” (Economic Theory, 2011), “A Theorem for Bayesian Group Decisions” (with Ralph Keeney, Journal of Risk and Uncertainty, 2011), and “Scoring Rules, Generalized Entropy, and Utility Maximization” (with Victor Jose and Robert Winkler, Operations Research, 2008). He is currently a coordinating editor at Theory and Decision, and he was previously an associate editor for Operations Research and departmental editor for Management Science.

One of the themes in Professor Nau’s research is that models of rational decision making in various fields are linked by a single unifying principle, namely the principle of no-arbitrage, i.e., avoiding sure loss at the hands of a competitor. This principle is central to modern finance theory, but it can also be shown to be the fundamental rationality concept that underlies Bayesian statistics, decision analysis, and game theory. In recent years Professor Nau’s work has focused on methods of generalizing the classic expected-utility model of decision making in order to explain patterns of risk-taking behavior (e.g., “Ellsberg’s Paradox” and “Allais’ Paradox”) that violate its assumptions.

Professor Nau has taught the core MBA courses on Decision Models and Statistics in several programs, and he developed an MBA elective course on Forecasting which he has taught throughout his career. He also teaches a course on Rational Choice Theory in the Ph.D. program that draws students from other departments and schools at Duke University. He has designed forecasting software that is incorporated in a commercial statistical analysis package (Statgraphics), and he also designed a regression analysis add-in for Excel (RegressIt) that is used in his courses at the Fuqua School and elsewhere. Prior to his academic career he was Manager of Information Systems for the National Risks division of Liberty Mutual Insurance Company, where he developed large-scale forecasting models for major corporate clients.