

## **Dialogue Decision Process and Decision Modeling and Monte Carlo Analysis Course Syllabi**

These companion courses provide an overview of Strategic Decisions Group's process for making smarter, faster, and more creative long-term decisions.

### **DIALOGUE DECISION PROCESS**

This three-day course introduces the cornerstones of making better decisions:

- Decision Quality, the concept that defines what we mean by a good decision
- The Dialogue Decision Process, an efficient, collaborative approach to organizationally and analytically complex decisions
- Decision Analysis, the quantitative tools and concepts that identify the best choice in an uncertain, complex, and dynamic business environment.

Senior decision-makers, decision team leaders, and those who provide information to support strategic decision-making will find this program to be a good introduction to the benefits of this approach in their organization, how it works, and their role in the process. The course does not discuss computer modeling, but we encourage participants to bring a calculator.

In nearly 30 years of delivering this course, we have found consistent success using a blend of presentations, group discussions, and "learning by doing." Participants work in teams on a simulated complex decision, and highly experienced decision consultants coach the teams and lead discussions of how the tools and techniques learned can be applied on the job.

SDG has presented this course hundreds of times publicly and in-house for its clients. The course consistently receives "excellent overall" and "very useful to me" evaluations from participants, and clients come back to SDG requesting repetitions over multiple years.

### **Topics**

#### *Overview and Framing*

- Introduction to the course and identification of participants' expectations

- Decision quality and the Dialogue Decision Process
- Diagnostic of organizational Decision Quality
- Demonstration of decision-making under risk
- Setting the appropriate frame
- Framing dialogue with decision-makers

*Alternatives, Sensitivity Analysis, and Information Assessment*

- Generating creative alternatives and using strategy tables
- Overview of evaluating alternatives
- Using influence diagrams to display key contributors to risk and value
- Determining the most significant contributors to risk using tornado diagrams
- Quantifying uncertainty using probability

*Decision Tree Analysis and Communicating Results*

- Assessing probabilities and ranges accurately
- Structuring and evaluating decision trees to determine the best alternative
- Displaying uncertainty and risk using probability distributions
- Drawing insight from analysis
- Communicating evaluation results to decision makers
- Judging the quality of the decision before it is made.

*Case Exercise*

The approach in this course is to “learn by doing.” Participants work in teams of up to six on a simulated consulting assignment, and an experienced decision consultant coaches each team. The case exercise is a Harvard Business School case, Freemark Abbey, which has been expanded and adapted for this course by SDG. There is a working session scheduled for each major topic in the course: framing, alternatives, influence diagrams, sensitivity analysis, probability assessment, decision trees, value of information, and communicating results to decision-makers. Participants solve the case using hand calculations; a computer is not required.

## **DECISION MODELING AND MONTE CARLO ANALYSIS**

Clients frequently request that we provide additional training for those members of a decision support team who will be using software—either to create models or to gain insight through analysis. We offer an optional two-day software and modeling module following the three-day Dialogue Decision Process course. This workshop builds skills and best practices for creating spreadsheet models, extracting powerful insights, and presenting analysis results to those who make complex strategic decisions.

Participants will build a complete decision model, conduct probabilistic analysis, and generate graphics to communicate insights.

### **Topics**

- Introduction to decision modeling
- Structuring an Excel model for probabilistic analysis
- Applying best practices in spreadsheet modeling with Excel
- Debugging models
- Generating insights from tornado diagrams
- Setting up a Monte Carlo simulation (Crystal Ball demonstration)
- Drawing and communicating insights

A good working knowledge of Microsoft® Excel is prerequisite for this software training.

### **Who Should Attend**

This course is designed for those who will build decision models and conduct probabilistic analysis using Monte Carlo simulation. Each participant is expected to have a laptop computer with Excel installed and to be familiar with but not necessarily expert in using Excel. Most of the software tools used in the workshop are given to participants; a demonstration version of Oracle's Crystal Ball should be downloaded prior to the workshop.

Because this workshop builds directly on the material taught in SDG's DDP course, we strongly encourage participants to have completed that course or its equivalent prior to enrolling in this course. Please contact the course registrar if you have any questions about the prerequisites for this course.

## **COURSE FEES, TEAM DISCOUNTS, AND REGISTRATION**

For the current fees for Dialogue Decision Process and Decision Modeling and Monte Carlo Analysis, visit our website ([www.sdg.com/ddp](http://www.sdg.com/ddp)) or contact our registrar. The quoted fee includes tuition, breakfasts, lunches, and all course materials.

Many participants elect to attend as part of a corporate team, and significant discounts are available. Contact the registrar for information.

Those wishing to receive a schedule of upcoming courses or to reserve a place in our next courses should visit our website or call the registrar:

Ms. Kayoko Matsunaga, **Registrar**  
+1 650.475.4487  
Email: [kmatsunaga@sdg.com](mailto:kmatsunaga@sdg.com).

## **INSTRUCTORS**

**Bruce Judd**, the lead instructor, is the director of SDG's Executive Education Program and a faculty member in the Stanford Center for Professional Development's Strategic Decision and Risk Management certificate program. Dr. Judd has more than 35 years of experience as a consultant and educator in decision analysis. He enriches his courses with relevant anecdotes from his strategy consulting, and he adapts successful exercises from his years of teaching in the MBA programs at Stanford and Northwestern. He holds a PhD and an MS in decision analysis from Stanford University. He is a Fellow in the Society of Decision Professionals.

Additional instructors are drawn from SDG's experienced consultants and educators, many of whom are instructors in Stanford's Strategic Decision and Risk Management program.