This program is in the Executive Certificate in Management and Leadership track.

Program Details
This program will introduce participants to “systems thinking” as a response to the rapid changes in technology, population, and economic activity that are transforming the world, and as a way to deal with the ever-increasing complexity of today’s business. Systems thinking was devised to improve people’s ability to manage organizations comprehensively in a volatile global environment. It offers managers a framework for understanding complex situations and the dynamics those situations produce. Senior managers can use the system dynamics method to design policies that lead their organizations to high performance. The program is intended to give participants the tools and confidence to manage organizations with full understanding and solid strategy.

Participants will experience the Beer Game, a table game, developed in the late 1950s by Jay Forrester. Played with pen, paper, printed plastic tablecloths, and poker chips, it simulates the supply chain of the beer industry. In so doing, it illuminates aspects of system dynamics, a signature mode of MIT thought: it illustrates the nonlinear complexities of supply chains and the way individuals are circumscribed by the systems in which they act.

Takeaways
The program will offer a new way of thinking about and resolving complex, persistent problems that emerge from change. Applying organization theory along with intuitive principles of feedback control, participants will learn to:

• Assess the likely impact of different policies and decisions that relate to their organization’s growth, stability, and performance
• Recognize business system archetypes that can trigger persistent, long-term problems
• Use state-of-the-art management tools to identify relationships
• Intervene effectively to make fundamental changes

Participants
This program is designed for executives with decision-making responsibility who are looking for fresh ideas to resolve organizational problems. Past participants have included:

• CEOs
• Presidents
• COOs
• CTOs
• VPs and EVPs
• Corporate planners and strategists
• Senior Project Managers
• Product Development Managers

"Amazing, amazing, and amazing! Good approaches and techniques for modeling the embedded complexity of the social/business/technical problems we face in our organizations today. ” —Jorge A., Past Participant

Read this review and others online.

http://executive.mit.edu/sd
Understanding and Solving Complex Business Problems

Sample Program Schedule
(subject to change)

**Day 1**

7:45 AM–8:30 AM: Registration and Continental Breakfast
8:30 AM–12:30 PM: Welcome and Introduction, Introduction to System Dynamics, Lessons from the Beer Game
12:30 PM–1:30 PM: Luncheon
1:30 PM–5:00 PM: Tools of the System Dynamics
5:00 PM–6:00 PM: Reception

**Day 2**

7:30 AM–8:30 AM: Continental Breakfast
8:30 AM–12:00 PM: Policy Design in Complex Organizations
12:00 PM–1:00 PM: Luncheon
1:00 PM–4:00 PM: The Implementation of Challenge

**Program Faculty**

Please note that faculty are subject to change and not all faculty teach in each session of the program.

**Faculty Director John Sterman**’s research centers on improving managerial decision making in complex systems. He has twice been awarded the Jay W. Forrester Prize for the “Best Published Work in System Dynamics.” He also has won a 2005 IBM Faculty Award as well as the 2001 Accenture Award for the “Best Paper of the Year” published in the California Management Review (with Nelson Repenning). Five times, he has won awards for “Teaching Excellence” from the students of MIT Sloan, and was named one of MIT Sloan’s “Outstanding Faculty” by the 2001 BusinessWeek Guide to the Best Business Schools.

**Brad Morrison** studies dynamically complex problems in organizations, organizational change, and management using the tools of system dynamics. He is a Senior Lecturer at MIT Engineering Systems Division, and holds a PhD in management (system dynamics and organization studies) from the MIT Sloan School of Management, an MBA in finance from the University of Chicago Graduate School of Business, and undergraduate degrees in chemistry and management science from MIT.

“The content was superb but that was not the best part of the program. The ability of the instructors to present the material and personally engage me in using what I learned was invaluable. This was my first MIT program and I’m excited to take more.”

—David V., Past Participant
Read this review and others online.

“A unique combination of simple tools that have incredible depth mixed with insight on how human behaviors impact real businesses. Applying these lessons in a systemic manner can make the difference between the winners, laggards, and losers.”

—Kevin M., Past Participant
Read this review and others online.

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