Business Dynamics
MIT’s Approach to Diagnosing and Solving Complex Business Problems

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

June 8–12, 2015
Cambridge, Massachusetts, U.S.
$8,700 (excluding accommodations)

Please visit our website for the most current information.

Program Details
In a world of growing complexity, many of the most vexing problems facing managers arise from the unanticipated side-effects of their own past actions. In response, organizations struggle to speed learning and adopt a more systemic approach. The challenge is to move past slogans about accelerating learning and “thinking systemically” to practical tools that help managers understand complexity, design better operating policies, and guide effective change.

This program introduces participants to system dynamics, a powerful framework for identifying, designing, and implementing high-leverage interventions for sustained success in complex systems. It has been used successfully in diverse industries and organizations, such as Airbus, Compaq, General Motors, Hewlett-Packard, Intel, and Merck. Developed at MIT more than thirty years ago by computer pioneer Jay Forrester, system dynamics led to the creation of management flight simulators that allow managers to experience the long-term side effects of decisions, accelerate learning, and design structures and strategies for greater success.

Through intensive, hands-on workshops and interactive experiments, participants will be exposed to the principles of systems thinking and practical methods for putting them into action. They will be introduced to a variety of tools, including mapping techniques, simulation models, and MIT’s management flight simulators, which they can apply to their own business environment as soon as they complete the program. Throughout the week, participants work in small groups and interact closely with the course leaders, Professors Sterman and Repenning.

“The approach—combining flight simulators, case studies, and team problem-solving—coupled with the outstanding caliber of teachers made this course a powerful experience for me and my company.”
—Roger Tremblay, President
Conseils en management Roger Tremblay, Inc.

Participants will experience the Beer Game, a tabletop 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
Effective decision making and learning require tools to better understand how the structure of complex systems influences the behavior of individuals within them and the overall outcomes. The concepts and frameworks covered in this Business Dynamics course will enable participants to:

- Discover why dysfunctional dynamics persist in organizations
- Understand why success in one area often means trouble for other areas, and how to avoid this problem
- Identify and understand complex situations and the dynamics they produce
- Assess in advance the likely impact of different policies and decisions on the growth, stability, and behavior of organizations
- Design integrated growth strategies
- Reduce critical delays in new product development and introduction
- Make strategic decisions that result in outcomes consistent with overall objectives
- Develop the ability to think systemically and dynamically
- Implement successful change initiatives

This program is in the Executive Certificate in Management and Leadership track.
Business Dynamics
MIT’s Approach to Diagnosing and Solving Complex Business Problems

Sample Program Schedule
(subject to change)

Day 1
- Introduction and Course Outline
- Beer Distribution Game
- Game Results and Discussions
- Feedback Loops and Simple Structures
- Simulation Workshop: Exploring Simple Structures
- Reception

Day 2
- Tools for Systems Thinking
- Dynamics of Process Development
- Modeling and Policy Design
- Modeling and Policy Design Workshop

Day 3
- Late, Expensive, and Wrong
- Project Management Dynamics (session 1)
- Project Management Dynamics (session 2)
- Social and Economic Systems
- Rethink Health Management Flight Simulator

Day 4
- Climate Policy Simulator
- People Express Management Flight Simulator
- People Express Conceptualization and Policy Design
- People Express Conceptualization and Policy Design (session 2)
- Reception and Dinner

Day 5
- Systems Dynamics in Action: The GM Experience
- Systems Dynamics in Action: The Implementation Challenge
- What Do I Do Monday Morning? How to Keep on Learning

Who Should Attend
Business Dynamics is designed for executives, managers, planners, strategists, and consultants who work with management teams. It also benefits administrators of public and not-for-profit organizations, management scientists, and educators. Titles of past participants have included:

- Chief Executive Officer / Chief Investment Officer
- Vice President, Learning and Innovation
- Decision Consultant
- Manager, Continuous Improvement
- Director, Forecasting and Market Intelligence
- Director, Process Management
- Senior Quality and Business Excellence Consultant
- Director, Programs and Strategic Planning
- Manager, IT Strategy and Competencies Development
- Professor

- Director, Corporate Planning Change Manager
- Director, Customer Investment Program
- Operations Improvement Manager
- Director, Enterprise Risk Management
- Director, Process Improvements Initiatives
- Vice President, Global Network Services
- Director, Sustaining and Process Engineering
- Manager, Corporate Planning
- Operations Research Analyst
- Director, Quality and Process
- Vice President, Performance Measurement and Management

The benefits of the program are reinforced when three or more participants from the same organization attend. Companies are encouraged to sponsor cross-functional team participation.

Faculty
Please note that faculty are subject to change and not all faculty teach in each session of the program.
- John Sterman, Faculty Director
- Nelson Repenning

Contact Information
MIT Sloan Executive Education
P: +1-617-253-7166  •  E: sloanexeced@mit.edu

"An absolutely insightful way to look into the complex, dynamic, and counter-intuitive world of systems. Business Dynamics allows us to expose, test, explore, and calibrate our own mental model." —Riichiro Oda, General Manager, Japan for Sustainability

Read more reviews online.

http://executive.mit.edu/bd