



# Predictive Analytics for Business Certificate Program

Spring-Summer 2019

► [ctme.caltech.edu/predictive](http://ctme.caltech.edu/predictive)

**Register now - Seats limited**

**Format:** 5-Day, Public, Instructor-led

**Upcoming Dates:** May 18/June 8, 22, 29/Jul 20

**Location:** Caltech Campus, Pasadena, CA

## Program Objectives

Business complexity and the uncertainty of demand and supply requires advanced analytic proficiency to make sense of it all. Modern technologies, connected products, and digitalization have triggered a tsunami of data and the consequences of not using information effectively. Leaders across the business must understand the opportunity of what's possible through analytics. This program focuses on predictive techniques to forecast customer, product/service, operational, and competitor performance.

Through expert-led action learning and using real-world examples and exercises, you will be able to implement capabilities for foresight with a quantitative perspective. This program elevates you and your team's capacity to understand business cases for predictive analytics and the impact on decision-making today.

## Learning Objectives

Over a 5-day accelerated format, you will apply course concepts to business problems faced in your work environment. With expert guidance, you will apply innovative tools and techniques to yield immediate and long-term benefits.

### Learnings include:

- Identifying practical opportunities to apply data mining, machine learning, and predictive analytics to improve business operations
- Collecting and organizing data from varied sources to facilitate forecasting and competitive intelligence

- Identifying and evaluating potential drivers of uncertainty in buying behaviors and business performance
- Using state-of-the-art tools and methods to extract meaning out of existing corporate data
- Defining actionable plans to increase sales, reduce costs, minimize churn, improve customer relations, and avoid or mitigate business risk
- Developing, verifying, and validating models for business and industry processes
- Making confident strategic decisions in the face of uncertainty and volatility
- Using data to optimize service delivery and product development
- Avoiding the bottlenecks, pitfalls, and time-wasters inherent in working with big data

## Participants

This program addresses the needs of managers and directors responsible for data-based decisions. The courses develop leaders who can solve problems through an advanced understanding of data—how to use data tools, how to interpret the data, and clearly communicate the “so what” for business decisions. Ideal participants come from customer teams, category and product management, supply chain and operations, distribution, corporate planning, finance, business intelligence, human resources, and more.

**To customize this program for your organization, contact a program advisor. 626.395.4042**  
[ctme@caltech.edu](mailto:ctme@caltech.edu)

## Why CTME

Leaders who aspire to innovate and execute come to Caltech's Center for Technology and Management Education (CTME). Here, you will do more than attend a class. You will develop new mindsets, technology skills, and the leadership capacity to master the complex issues that challenge your organization.

**Instructors with real industry insight**—Our educators bring decades of real world experience and leadership from roles in research, engineering, commercialization, manufacturing, operations and executive accountability of technology-driven organizations and government agencies.

**Action-learning** is more than just experiential. We facilitate real impact through small groups working on actual problems which, with Caltech coaching and structure, prepares individuals, teams, and organizations to adapt to new challenges.

**Customization**—We work with you to understand your current challenges. Then, we integrate your specific context, cases, and methods with proven industry best-practices and insights to tailor the content to your needs.

**Flexible formats** allow us to deliver in the schedule most convenient for the organization. Choose between courses held at your location or at our beautiful campus in Pasadena, California for the full Caltech experience.

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## About Caltech

Caltech is a world-renowned science and engineering institute that marshals some of the world's brightest minds and most innovative tools to address fundamental scientific questions and pressing societal challenges. Caltech prizes excellence and ambition. The contributions of Caltech's faculty and alumni have earned national and international recognition, including 39 Nobel Prizes. The Institute manages the Jet Propulsion Laboratory (JPL) for NASA.

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## Connect with CTME

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**Twitter:** @CaltechCTME

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[ctme.caltech.edu](http://ctme.caltech.edu) or call 626.395.4042

## INSTRUCTORS

**Chris Christensen**, PMP, specializes in project management, quality improvement, product development, futures research, and strategic planning. He assists manufacturing and service organizations in forecasting their future, developing successful products, and developing and deploying practical strategic plans. He is a certified Six Sigma Black Belt, Certified Quality Engineer, and Certified Quality Manager.

With over 40 years of experience, he has consulted with 3M, Dow Chemical, Aerospace Corporation, Baxter, Boeing, Delco, Disney, Los Angeles Times, Raytheon, and Toshiba, among others. Mr. Christensen holds an MBA from Pepperdine, an MS in systems engineering from West Coast University.

**Carol Jacoby**, PhD, specializes in mission analysis, systems engineering, decision analysis, and mathematical techniques. She has 28 years of experience in systems engineering at Hughes Electronics and Rockwell International. She led Hughes' Mission Analysis Center of Excellence in developing complex systems of systems for defense, transportation, and other areas. She was one of the first people to apply systems engineering to highway transportation.

Dr. Jacoby is an internationally recognized research mathematician, with several recent publications in peer-reviewed journals and a forthcoming book written for advanced graduate students and researchers. She earned her PhD at the University of California, Irvine, her MS at Northeastern University.

**Ken Preston**, DBA, has 28 years of aerospace and defense experience with over 20 years in project management. As a lead for the Boeing C-17 Program, he has technical oversight of the parts management/obsolescence function and predictive obsolescence analytics. Dr. Preston was an engineering project manager of special projects in the Design Integration Office and project manager for supplier diversity.

Dr. Preston was selected Manager of the Year by the National Management Association (NMA) Southern California Area Council. He is a recipient of the NASA/American Society for Engineering Education Faculty Fellowship Program via Langley Air Force Base and served on the faculty at Hampton University. Dr. Preston received his DBA in business administration and MBA in project management from Columbia Southern University.

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Programs, dates, fees, and instructors are subject to change.

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