

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

CERTIFIED SUPPLY CHAIN INVENTORY OPTIMIZATION AND DEMAND FORECASTING PROFESSIONAL™

CID™

**Fully Accredited
By:**

Chartered Institute of
Professional Certifications

CPD
Certification Service



PROGRAM OVERVIEW



Inaccurate demand forecasts contribute to over \$500 billion in global inventory waste annually, with **nearly 30% of supply chain professionals citing poor planning as a top barrier to efficiency**. As product life cycles shorten and customer expectations rise, organizations must shift from reactive inventory practices to predictive, analytics-driven planning. With demand volatility, geopolitical disruptions, and fragmented data systems becoming the new norm, optimizing forecasting accuracy and inventory responsiveness has never been more critical.

This certified program will equip you with the critical expertise and advanced skill sets required for world-class inventory optimization and demand forecasting. Throughout this program, you will explore cutting-edge practices from **demand planning, inventory classification, and replenishment strategies to the use of AI and machine learning in forecast modeling**. You will learn how to integrate **demand signals with supply responses, build agile inventory systems, and design robust forecasting models** that respond to uncertainty with precision. The program also emphasizes practical tools, enabling you **to reduce stockouts, minimize excess, and strike the optimal balance** between working capital and service levels.

In addition, the program delves into specialized techniques such as **dynamic safety stock modeling, multi-echelon inventory optimization, collaborative demand planning, and advanced S&OP frameworks**. You will gain insights into real-world challenges, including managing **lead time variability, mitigating the bullwhip effect, and synchronizing demand with supply constraints**. Ethical and sustainable inventory strategies will also be explored to support ESG objectives and corporate governance standards. By the end of the program, you will be equipped with the expertise to lead inventory and forecasting transformations, drive cross-functional alignment, and deliver measurable value across your supply chain.

Upon successful completion of the program and passing the Chartered exam, you will attain the **Certified Supply Chain Inventory Optimization and Demand Forecasting Professional (CID™)** designation, an internationally recognized credential that will validate your ability to apply sophisticated forecasting models and optimize inventory policies, positioning you as a data-driven leader in global supply chain management.

ACCREDITATIONS



4.8



4.6



KEY SKILLS YOU WILL GAIN

From This Program



**FORECAST MODELING
DATA CLEANING
EXCEL ANALYTICS
TIME SERIES ANALYSIS**

**MOVING AVERAGES
SMOOTHING TECHNIQUES
FORECAST ACCURACY
MAPE CALCULATION**

**MAD & RMSE USAGE
REGRESSION ANALYSIS
 R^2 INTERPRETATION
ANOVA TESTING**

**CAUSAL FORECASTING
ARIMA MODELING
HOLT-WINTERS METHOD
SCENARIO FORECASTING
ERP INTEGRATION**

**EOQ CALCULATION
ROP MODELING**

YOUR FACULTY DIRECTOR



Dr. Mark Rodgers

Award-Winning Supply Chain Management Professor and Faculty Director

Dr. Mark Rodgers is an award-winning **Assistant Professor for the Supply Chain Management Department** of the Rutgers Business School and over 15 years of experience in leadership and advisory roles. With a focus on power grid expansion planning, simulation-based optimization, and quantitative methods to assess supply chain disruptions and risk, **Dr. Rodgers' research has been widely recognized and presented at numerous academic conferences.** His passion in supply chain and teaching has led him to be awarded several research and teaching awards that include Junior Faculty Teaching Award in addition to being awarded the NJ Small Business Development Center Grant and NJDEP Recycling Enhancement Grant.

OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before





PROGRAM AGENDA

MODULE 1 - FORECASTING FOUNDATIONS & PREDICTIVE PLANNING

- Overview - Forecasting Foundations & Predictive Planning
- Lesson 1 - Advancements in SCM through Predictive Analytics
- Lesson 2 - Benefits of Introducing Predictive Analytics Solutions in Supply Chain Management
- Lesson 3 - Conflicting Objectives

MODULE 2 - DATA PREPARATION FOR PLANNING ACCURACY

- Overview - Data Preparation for Planning Accuracy
- Lesson 1 - Data Collection and Cleaning
- Lesson 2 - Excel Functions - Let's Practice
- Lesson 3 - Excel Functions - Let's Practice (contd.)

MODULE 3 - TIME SERIES FORECASTING & ACCURACY METRICS

- Overview - Time Series Forecasting & Accuracy Metrics
- Lesson 1 - Forecasting
- Lesson 2 - Weighted Moving Average: Example

- Lesson 3 - What about trend adjustments?
- Lesson 4 - Holt's Exponential Smoothing
- Lesson 5 - Winter's Exponential Smoothing
- Lesson 6 - Forecast Error

MODULE 4 - ADVANCED FORECASTING MODELS & ERP INTEGRATION

- Overview - Advanced Forecasting Models & ERP Integration
- Lesson 1 - Introduction to Time Series Forecasting
- Lesson 2 - What is ARIMA? - Let's Practice
- Lesson 3 - Understanding Seasonality
- Lesson 4 - Bridging Forecasting Models and ERP Systems

MODULE 5 - REGRESSION & CAUSAL FORECASTING

- Overview - Regression & Causal Forecasting
- Lesson 1 - Forecasting: Simple Linear Regression
- Lesson 2 - Least Squares Method – Formulas (Example)
- Lesson 3 - Correlation
- Lesson 4 - Example: Compute p and R^2
- Lesson 5 - Decomposition (Revisited)
- Lesson 6 - Multiple Regression
- Lesson 7 - Least Squares Estimation of the Parameters - Example (contd.)



PROGRAM AGENDA

- Lesson 8 - ANOVA Tables - Example
- Lesson 9 - Forecast Error - Example

MODULE 6 - INVENTORY OPTIMIZATION: EOQ, ROP, AND SERVICE LEVELS

- Overview - Inventory Optimization: EOQ, ROP, and Service Levels
- Lesson 1 - Introduction of Inventory
- Lesson 2 - Single Period Model
- Lesson 3 - Multi-Period Models
- Lesson 4 - Safety Stock Levels
- Lesson 5 - ABC Classification

MODULE 7 - INVENTORY POLICY SIMULATION & UNCERTAINTY MANAGEMENT

- Overview - Inventory Policy Simulation & Uncertainty Management
- Lesson 1 - Backordering VS Lost Sales
- Lesson 2 - Simulation

MODULE 8 - CUSTOMER SEGMENTATION IN EXCEL

- Overview - Customer Segmentation in Excel
- Lesson 1 - Introduction of Customer Segmentation

- Lesson 2 - Customer Segmentation Exercise
- Lesson 3 - Market Basket Analysis

MODULE 9 - BUILDING RESILIENCE IN SUPPLY CHAINS

- Overview - Building Resilience in Supply Chains
- Lesson 1 - Introduction to Supply Chain Resilience
- Lesson 2 - Supply Chain Resilience In A Globalized Economy

MODULE 10 - STRATEGIC DECISION- MAKING WITH PREDICTIVE ANALYTICS

- Overview - Strategic Decision-Making with Predictive Analytics
- Lesson 1 - Data Driven Decision-Making Analytics
- Lesson 2 - Exercise
- Lesson 3 - Analyzing Data For Effective Decision Making
- Lesson 4 - Tools and Technologies for Analytics in Strategy



YOUR CHARTER DESIGNATION



Chartered Institute of Professional Certifications' programs are unique as they provide you with professional charter designations and marks that can be used across your lifetime once you have completed our programs.

Upon completion of the program and successfully passing the Chartered exam, you will be awarded the prestigious **Certified Supply Chain Inventory Optimization and Demand Forecasting Professional (CID™)** designation, which can be showcased in your resume, CV, and other professional credentials. Developed by the **Chartered Institute of Professional Certifications**, a leading authority in professional certifications, this industry-recognized, trademarked charter validates your expertise in modern supply chain planning, demand forecasting, and inventory optimization. It demonstrates your ability to design predictive models, implement strategic controls, and integrate ERP-driven planning - showcasing your proficiency in aligning operations with business goals and driving resilient, data-informed supply chain performance.

The program's content has been independently accredited and certified by the **Continuing Professional Development (CPD) organization**, guaranteeing adherence to rigorous standards of professional development.

ABOUT US

49,525

Business Leaders Have
Attained Their Chartered
Certifications Since 2009

390

Certified and Fully
Accredited Programs

87%

Chartered Leaders Have
Reported Career Promotions
and Enhancements

Chartered Institute of Professional Certifications

All of Chartered Institute of Professional Certifications programs are fully accredited programs. The professional charters and designations are trademarked credentials that can only be used by professionals who have completed and passed our accredited program. It is also independently accredited by CPD as adhering to the highest standards of continuing professional principles.

CHARTERED
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

OUR FACULTY DIRECTORS

We Collaborate With
Instructors From
Renowned Institutions



HARVARD
UNIVERSITY



Wharton
UNIVERSITY of PENNSYLVANIA



Stanford University



UNIVERSITY OF MICHIGAN



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE



**Columbia
Business
School**

**London
Business
School**



CONTACT US TODAY

We Thank You for Your Ongoing Support
of Our Programs

Singapore and Asia Pacific Enquiries

Email: advisor@charteredcertifications.com
Phone: +65 6716 9980
Address: Chartered Institute of Professional Certifications
1 Gateway Drive
#20-04 Westgate Tower
Singapore 608531

Australia and New Zealand Enquiries

Email: advisor@charteredcertifications.com
Phone: +61 3 9909 7310
Address: Chartered Institute of Professional Certifications
530 Little Collins Street, Level 1
Melbourne VIC 3000, Australia

UK, Europe and Middle East Enquiries

Email: advisor@charteredcertifications.com
Phone: +44 (020) 335 57898
Address: Chartered Institute of Professional Certifications
86-90 Paul Street
London, EC2A 4NE

USA Enquiries

Email: advisor@charteredcertifications.com
Phone: +1 888 745 8875
Address: Chartered Institute of Professional Certifications
99 Wall Street #3936
New York, NY 10005