

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

CERTIFIED DEMAND FORECASTING AND CAPACITY PLANNING FOR TRANSPORTATION LOGISTICS

**Fully Accredited
By:**

Chartered Institute of
Professional Certifications

CPD
Certification Service



PROGRAM OVERVIEW

Demand forecasting and capacity planning are mission-critical in transportation logistics, yet over **70% of companies continue to experience disruptions caused by inaccurate forecasts**. These inefficiencies can drive up operational costs by 15–20% and lead to significant service delays. By contrast, precise forecasting empowers organizations to optimize resource allocation, boost delivery reliability, and elevate customer satisfaction—directly enhancing profitability and strengthening competitive advantage in an increasingly volatile market.

This certified program is designed to provide transportation logistics and supply chain leaders with advanced expertise in developing robust demand forecasting models and implementing dynamic capacity planning frameworks. Participants will explore essential concepts including **predictive analytics methodologies, multimodal transportation modeling, demand pattern recognition, and capacity optimization techniques**. Through practical case studies and hands-on simulations, this program ensures you develop proficiency in creating **accurate demand forecasts, designing flexible capacity allocation strategies**, and leveraging cutting-edge technology tools to enhance operational efficiency. This comprehensive training will empower you to anticipate **market fluctuations, optimize resource utilization, and make data-driven decisions** across diverse transportation contexts.

ACCREDITATIONS



4.8



4.6



PROGRAM OVERVIEW

Throughout the program, you will immerse yourself in critical topics including **seasonal demand variability, data integration strategies, external disruption management, and multimodal network optimization**. You will master techniques for harmonizing short-term tactical planning with long-term strategic objectives, evaluating capacity trade-offs, and implementing dynamic routing systems. Additionally, you will develop capabilities to quantify uncertainty in **forecasting models, design contingency planning frameworks, and create adaptive capacity allocation** strategies that respond to real-time market conditions.

Upon successfully completing the program, you will be awarded the **Certification in Demand Forecasting and Capacity Planning**. This certification will elevate your professional credentials, underscore your expertise in strategic logistics planning, and demonstrate your ability to conduct thorough, data-driven operational analysis. With global recognition and lifelong validity, this certification will serve as an ongoing testament to your commitment and proficiency in the dynamic and ever-critical field of transportation logistics optimization.

ACCREDITATIONS



4.8



4.6



KEY SKILLS YOU WILL GAIN

From This Program



DEMAND FORECASTING FUNDAMENTALS
TRANSPORTATION FORECASTING TECHNIQUES
DATA COLLECTION AND VALIDATION
DATA CLEANING AND PREPARATION

HISTORICAL DEMAND ANALYSIS
IDENTIFYING SEASONALITY AND TRENDS
QUANTITATIVE FORECASTING METHODS
QUALITATIVE FORECASTING APPROACHES

FORECAST ACCURACY MEASUREMENT
MAD, MAPE, RMSE
KPI SETTING AND BENCHMARKING
SIMULATION MODELING

ERP AND SCM INTEGRATION
DATA VISUALIZATION AND REPORTING
OPERATIONAL DASHBOARD UTILIZATION
COST-BENEFIT ANALYSIS
AI AND MACHINE LEARNING IN FORECASTING

IOT APPLICATIONS IN LOGISTICS
BLOCKCHAIN FOR LOGISTICS VISIBILITY

YOUR FACULTY DIRECTOR



Dr. Mark Rodgers

Award-Winning Supply Chain Management Professor and
Faculty Director

Faculty Leader for Canada Programs

Dr. Mark Rodgers is an award-winning **Assistant Professor for the Supply Chain Management Department** of the Rutgers Business School with 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 - INTRODUCTION TO DEMAND FORECASTING IN LOGISTICS

- Lesson 1 : Foundations of Demand Forecasting in Logistics
- Lesson 2 : Capacity Planning and Network Optimization
- Lesson 3 : Forecasting Challenges and Market Volatility
- Lesson 4 : FedEx Peak Planning and Forecasting Techniques
- Lesson 5 : Strategic Planning, Technology, and Future Considerations

MODULE 2 - DATA COLLECTION AND HISTORICAL DEMAND ANALYSIS

- Lesson 1 : Introduction to Demand Forecasting & Data Sources
- Lesson 2 : AI Applications and Data Models in Logistics Forecasting
- Lesson 3 : Data Quality, Collection Challenges & Cleaning Techniques
- Lesson 4 : Handling Missing Values and Outliers in Transportation Data
- Lesson 5 : Data Visualization and Historical Demand Analysis
- Lesson 6 : Seasonality, Anomaly Detection & Case Studies
- Lesson 7 : AI Forecasting Techniques and

LSTM Models in Transport

- Lesson 8 : Advanced Forecasting and Demand Simulation Techniques
- Lesson 9 : Strategic Forecasting Applications and Business Impact
- Lesson 10 : Scenario Analysis, Simulation Tools & Forecasting Models
- Lesson 11 : Success Factors, Performance Metrics & Future Trends
- Lesson 12 : Data Preparation and Excel Tools for Forecasting

MODULE 3 - FORECASTING METHODS FOR LOGISTICS

- Lesson 1 : Overview of Forecasting Methods in Transportation
- Lesson 2 : Forecasting Principles and Time Series Models
- Lesson 3 : Exponential Smoothing Techniques and Applications
- Lesson 4 : Trend-Adjusted and Advanced Smoothing Techniques
- Lesson 5 : Holt's and Winter's Exponential Smoothing Models
- Lesson 6 : Seasonality, Initialization, and Forecasting Exercises
- Lesson 7 : Measuring Forecast Accuracy and Error Analysis



PROGRAM AGENDA (EUROPE)

MODULE 1 - INTRODUCTION TO FORECASTING AND CAPACITY PLANNING

- Key terms and frameworks
- Importance of logistics lesson
- Real-world context

MODULE 2 - DATA COLLECTION AND ANALYSIS

- Relevant sources
- Cleaning and preparing data
- Pattern identification

MODULE 3 - FORECASTING METHODS

- Quantitative vs. qualitative
- Time-series modeling lesson
- Choosing the right approach

MODULE 4 - SOFTWARE AND TOOL INTEGRATION

- Overview of leading forecasting tools
- ERP/TMS/WMS alignment
- Dashboard design in power BI

MODULE 5 - LINKING DEMAND TO CAPACITY

- Capacity metrics
- Transportation-specific considerations
- Alignment strategies

MODULE 6 - STRATEGIC AND TACTICAL PLANNING

- Long-term vs. short-term planning
- Real-time adjustment methods
- Technology applications

MODULE 7 - COST IMPACT ANALYSIS

- Fixed vs. variable cost modeling
- Capacity investment decision
- Margin sensitivity and breakeven analysis

MODULE 8 - RISK MANAGEMENT IN PLANNING

- Risk identification and mitigation
- Lead time disruptions
- Contingency models

MODULE 9 - ADVANCED TOOLS AND TECHNOLOGIES

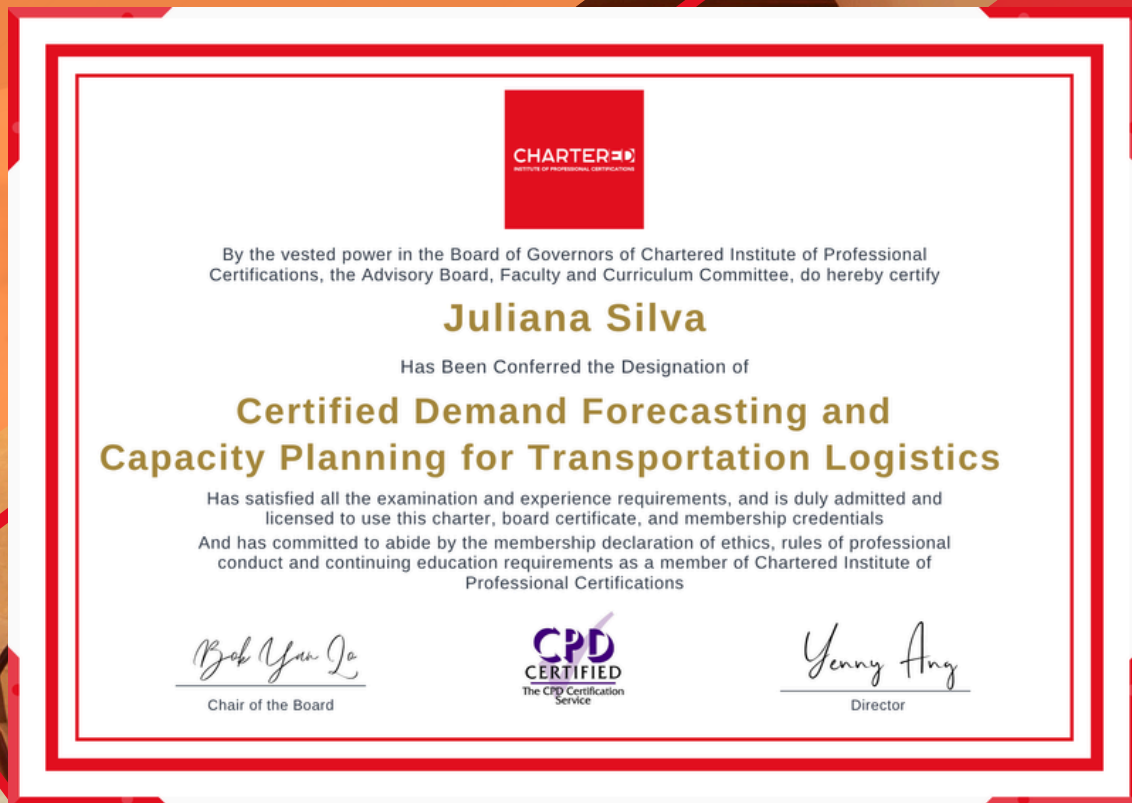
- AI/ML applications
- IoT in fleet optimization
- Blockchain in logistics planning

MODULE 10 - KPIs AND CONTINUOUS IMPROVEMENT

- Forecasting accuracy metrics
- Performance dashboards
- Setting benchmarks and driving improvement

EXAMINATION

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 completing the program and passing the exam, you will receive the prestigious **Certified Demand Forecasting and Capacity Planning for Transportation Logistics** credential. This certification will establish you as a recognized expert in demand forecasting and capacity planning for logistics operations excellence. It does not only elevates your professional credibility but also opens doors to new career opportunities, enhances your organization's competitiveness, and drives business growth through optimized logistics operations.

Developed by the esteemed **Chartered Institute of Professional Certifications**, the certification is a highly regarded industry-recognized certificate that signifies excellence in the area of advanced demand forecasting and capacity planning principles. In addition, the program content has been independently accredited and certified by CPD, ensuring that it meets the highest standards in continuing 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.

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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