Information Session:

Supply Chain Analytics Professional Certificate Program
Supply Chain Analytics Professional Certificate Program

Transforming Supply Chain Management and Performance Analysis

Creating Business Value with Statistical Analysis

Machine Learning Applications for Supply Chain Planning

Supply Chain Optimization and Prescriptive Analytics
Program Delivery Format

THIS IS A FULLY ONLINE (LIVE / VIRTUAL) PROGRAM

ATTENDANCE AT EACH LIVE WEBINAR IS REQUIRED
Strategic
meet long-term goals

Tactical
Policies and procedures to support the strategy (mid-term)

Operating
Carrying out the policies and procedures that support the strategy (short-term)

Planning Challenges

- Supply Chain Design
- Warehouse Design
- Factory Layout
- Product Recommendations
- Customer Churn
- Cost to Serve
- Revenue Management
- Inventory Management
- Performance Analysis / Supply Chain Visibility
- Production Planning
- Predictive Maintenance
- Route Optimization
- Workforce scheduling

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Analytics Continuum

Impact

Effort

Prescriptive Analytics

How can we make something better happen.

Predictive Analytics

What will happen?

Diagnostic Analytics

Why is it happening?

Descriptive Analytics

What's happening?
CBC: The Cardboard Company
The CBC Supply Chain Network
Supply Chain Analytics Professional Certificate Program

1. Transforming Supply Chain Management and Performance Analysis

2. Creating Business Value with Statistical Analysis

3. Machine Learning Applications for Supply Chain Planning

4. Supply Chain Optimization and Prescriptive Analytics
Transforming Supply Chain Management and Performance Analysis

Day 1: Using Analytics to Transform Supply Chain Management

Day 2: Exploratory Data Analysis for Supply Chain Data

Day 3: Performance Analysis and Visualization of Supply Chain Data

Day 4: Using Descriptive Analytics in Supply Chain Management
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2. Creating Business Value with Statistical Analysis
3. Machine Learning Applications for Supply Chain Planning
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Creating Business Value with Statistical Analysis

Day 1: Asking the Right Business Questions; Simulations in Supply Chains

Day 2: Statistics for Supply Chain Data

Day 3: Models for Inventory Management

Day 4: Time Series Models
Analytics Question Framework

- **OUTPUT**
- **DATA**
- **ANALYTICS TYPE**
- **PROJECT**
- **BUSINESS QUESTION**

refinement
Inventory Policy: Overview

- **Inventory Management**
  - What inventory levels should we maintain?
  - What level should we refill to?
  - Which products are easily forecastable?

- **Demand Profiling**
  - How much safety stock do we need?
  - How much storage space do we need?
  - Which products are current/future issues?

- **Inventory Policies**

- **Service Profiling**

- **Simulation/Trial**

- **Profitability and Cost Efficiencies**

- **Customer Service and Satisfaction**
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Machine Learning Applications for Supply Chain Planning

- Day 1: A Machine Learning Introduction; Time Series Analysis Recap; An ML Approach to Time Series
- Day 2: ML Classification and Clustering
- Day 3: Model Evaluation and SCM Applications
- Day 4: Feature Importance and Predictive Maintenance
Supply Chain Analytics Professional Certificate Program

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Supply Chain Optimization and Prescriptive Analytics

- Day 1: Introduction to Optimization
- Day 2: Production Planning
- Day 3: Routing and Network Design
- Day 4: Implementing Prescriptive Analytics
Daily Schedule

**12:45pm – 1:00pm ET**
- Instructors join the webinar to answer questions

**1:00pm – 5:00pm ET**
- Webinar with lectures, discussions, and small group activities
- Two 15 minute breaks

**5:00pm - ?**
- Instructors stay on the call to answer questions

**All other times**
- Instructors available via email for questions and scheduling individual sessions
Assignments are meant to help reinforce what you have learned. Not all assignments are mandatory. Discussions, attendance, the final assignment with explanations, and the final assessment are mandatory.
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Prerequisites

- Basic understanding of SCM
- Basic understanding of statistics and probability
- Basic Python coding skills
- Basic Microsoft Power BI skills
For more information, please visit:

Georgia Tech Supply Chain and Logistic Institute
scl.gatech.edu/education/professional-education

Supply Chain Analytics Professional Certificate
pe.gatech.edu/supply-chain-analytics-professional-certificate

For program and certificate questions, email us:
info@scl.gatech.edu

For questions about courses, email us:
course@scl.atech.edu