

# OPERATIONS ANALYTICS CERTIFICATE

## Program Description

Effective data-driven analysis in your teams requires decision support tools that can aid you in making strategic managerial choices for your organization. Having the ability to design these tools can set you apart and provide the foundation for smart operational decisions in your organization.

This program provides you with the skills to analyze performance in three key areas of operations management: process analysis, queuing analysis, and inventory analysis. Through this program, you will use process and queuing analysis concepts and design solutions in Microsoft® Excel to calculate metrics that can be used to evaluate the performance of current processes within your organization. You will also assess different methods to manage inventory and determine when and how to use them. Finally, you will be introduced to new approaches to aid decision making in operations settings: optimization, Monte Carlo simulation, and decision trees. By the end of this program, you will have the skills to analyze operations in your organization and enable your teams to make better decisions.

To be successful in these courses, you should have basic knowledge of probability and statistics, including confidence intervals and basic algebra. You should also have intermediate knowledge of Excel formulas and functions, including, but not limited to, creating graphs, nesting functions, sorting, and linking.

## Key Takeaways

- Improve process efficiency by identifying bottlenecks and analyzing the impact of proposed corrective actions
- Analyze operations with variability in arrival and service times by determining the appropriate performance metrics
- Identify the appropriate inventory policy for a given product or service
- Design Microsoft Excel-based decision support tools for operations settings

## What You'll Earn

- Operations Analytics Certificate from Cornell's SC Johnson College of Business
- 64 Professional Development Hours (6.4 CEUs)

## Who Should Enroll

- Operations leaders
- Team members responsible for building and improving operations processes
- Individual contributors and leaders who build data models to support decision making
- Data analysts
- Anyone seeking foundational quantitative skills through an operations lens

## Total Investment

2 months to complete all courses.

## How to Enroll

For more information and to enroll, please visit Operations Analytics Certificate (<https://ecornell.cornell.edu/certificates/data-science-analytics/operations-analytics/>).

The courses in this certificate program are required to be completed in the order that they appear.

## Courses

| Code            | Title                                  | Hours |
|-----------------|----------------------------------------|-------|
| eCornell JCB531 | Process Performance                    | 0     |
| eCornell JCB532 | Queueing Analysis                      | 0     |
| eCornell JCB533 | Inventory Management Analysis          | 0     |
| eCornell JCB534 | Decision Support Models for Operations | 0     |