

Online Certificate Programme

Analytics & Decision Support in Healthcare Operations Management



Driving Operational
Excellence through Analytics and Decision Sciences

Background

Analytics and Decision Support in Healthcare Operations Management integrates operations research, management science, and data-driven analytical techniques to improve operational efficiency and organizational performance. Techniques such as project management (PERT/CPM), supply chain and inventory optimization, linear programming, forecasting, queuing analysis, Lean Six Sigma, and quality improvement provide healthcare managers with scientific approaches for solving complex operational challenges.

This Online Certificate Programme is designed to equip healthcare professionals with practical analytical tools and decision-support techniques to optimize healthcare operations, improve resource utilization, reduce waste, enhance patient satisfaction, and support evidence-based managerial decision-making. The programme combines conceptual learning with software-supported applications, enabling participants to immediately apply these techniques within hospitals and healthcare organizations.

Objectives

The programme aims to:

- Understand healthcare operations management principles and decision-support methodologies.
- Develop competencies in healthcare supply chain and inventory management using EOQ and ABC/VED analysis.
- Learn forecasting and predictive analytics techniques for healthcare operations.
- Apply Lean Six Sigma methodologies for healthcare quality improvement and operational excellence.
- Develop analytical decision-making skills using software-based applications.



Course Contents

- Introduction to Healthcare Operations Management
- Hospital Project Management using Gantt Charts, PERT & CPM
- Supply Chain & Inventory Management
- Linear Programming for Resource Allocation
- Forecasting & Predictive Analytics
- Queuing Theory & Capacity Planning
- Quality Management in Healthcare
- Practical Applications using Microsoft Excel, Operations Management Software, Minitab®

Pedagogy

The programme adopts an experiential and application-oriented learning approach that combines theoretical concepts with practical problem-solving. Participants will gain hands-on experience in solving operational challenges involving project scheduling, inventory optimization, forecasting, quality improvement, and healthcare process redesign using analytical software tools.

Who Should Attend?

- Hospital CEOs, Senior Administrators, Healthcare Professionals
- Medical Superintendents
- Hospital Operations Managers & Quality Managers
- Supply Chain and Procurement Managers
- National Health Mission (NHM) Officials
- Healthcare Consultants
- Public Health Professional
- Healthcare Management, Academician, Researcher and Graduates
- Professionals interested in Healthcare Analytics and Operations Management

Programme Coordinator



Dr. Susmit Jain

Associate Professor
IIHMR University, Jaipur

Programme Duration

Duration: 3 Months (12 Weeks) Learning

Learning Hours: 48 Hours

- 24 Hours Online Instructor-led Sessions
- 24 Hours Guided Self-learning

Credits: 3 Credits

Mode: Live Online (Faculty-led sessions with hands-on practical learning)

Registration

For programme schedule, fee details, and registration, please contact:

Office of Online Certificate Programmes (OCP)
IIHMR University

1, Prabhu Dayal Marg, Sanganer Airport
Jaipur – 302029, Rajasthan, India

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Programme Highlights

- Healthcare Operations Management for hospitals
- Project Management using PERT & CPM
- Supply Chain & Inventory Analytics
- Forecasting and Predictive Analytics
- Linear Programming for Resource Optimization
- Queuing & Capacity Planning
- Lean Six Sigma for Healthcare
- Hands-on Excel and Minitab® applications
- Weekend online learning format
- Practical assignments and software-based exercises

Assessment

Participants will be evaluated through:

- Module Quizzes
- Practical Notebook Assignments
- Group Activities and Case Discussions
- End-Term Online Examination

Certificate

Participants successfully completing the programme and fulfilling the attendance and assessment requirements will receive a Certificate of Completion from IIHMR University, Jaipur.

Eligibility

Graduate in any discipline.

Healthcare, hospital management, public health, IT, or management experience is desirable. No prior programming knowledge is required.

Programme Fee

The programme fee for Indian participants is INR 30,000 +18% GST and for International Participants: US\$ 315+18% GST.

- 🌟 **Early Bird Discount:** Nominations received with payment before four weeks of the commencement of the programme will be entitled to a 10% early bird discount.
- 🌟 **Group Discount:** Any organization sponsoring four or more participants to the programme will be entitled to a 20% discount on the total fee payable, provided that at least four participants attend the programme.
- 🌟 **Maximum Discount:** Organizations can avail themselves of both discounts, subject to a maximum discount of 20%.



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