

# CAREERS THROUGH MATHS: OPERATIONS MANAGER



## JOB OVERVIEW

Operations Managers are responsible for overseeing, designing, and controlling the processes of production and re-designing business operations in the production of goods or services. They work across diverse sectors including manufacturing, logistics, healthcare, and finance, ensuring that organisations run efficiently, profitably, and sustainably. The role is fundamentally mathematical, involving the analysis of key performance indicators (KPIs), optimisation of resource allocation, and the use of data-driven models to improve workflow, reduce costs, and enhance quality. They act as the bridge between strategic goals and practical execution, using quantitative analysis to inform decision-making at every level.

## KEY MATHS APPLICATIONS

**Primary Areas:**

## ESSENTIAL SKILLS & TOOLS

SKILL	APPLICATION
<b>**ERP Systems (e.g., SAP)**</b>	Integrating data from all departments (finance, supply chain, HR) for real-time operational decision-making.
<b>**Data Visualisation (e.g., Tableau)**</b>	Creating dashboards to translate complex operational data into actionable insights for stakeholders.
<b>**Process Mapping**</b>	Visually analysing workflow to identify bottlenecks, redundancies, and opportunities for efficiency gains.
<b>**SQL &amp; Database Querying**</b>	Extracting and manipulating large datasets from company databases to perform root cause analysis.

## TYPICAL PATHWAY

A bachelor's degree in a relevant field such as Business Management, Engineering, or Mathematics is typically essential, with many professionals also holding an MSc in Operations Management or an MBA. Career progression often begins in a junior analyst or team leader role, advancing to Operations Manager, Senior Operations Manager, and ultimately Head of Operations or Director. Professional qualifications from bodies like the Chartered Institute of Procurement & Supply (CIPS) or the Institute of Operations Management (IOM) are highly regarded.

## INDUSTRY DEMAND

Demand for skilled Operations Managers in the UK remains consistently high across all sectors, particularly in logistics, manufacturing, and technology. According to Lightcast, there were over 25,000 job postings for operations managers in the UK in the last year. The role is evolving to require stronger data analytics and digital transformation skills, with growth driven by the need for supply chain resilience and operational efficiency.

## REAL-WORLD IMPACT

Operations Managers have a direct impact on a company's profitability, sustainability, and customer satisfaction. By optimising processes, they reduce waste and environmental impact. By ensuring efficient supply chains, they guarantee that essential goods and services are delivered reliably, playing a critical role in economic stability and business innovation.

## QUICK FACTS

- Career:** Professional role requiring analytical skills
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## MATHEMATICAL EXAMPLES

**Spatial Planning:** Office layouts and space optimization