



OPERATIONAL RESEARCH SPECIALIST

Higher Degree Apprenticeship – Canterbury

PROGRAMME OVERVIEW

The University of Kent is a top 50 UK university, offering high-quality teaching and facilities across our campuses in Medway and Canterbury.

The Level 7 Operational Research Specialist Profile

This apprenticeship is designed to enhance the knowledge, skills and behaviours of current employees working in an operational research (OR) role.

The programme will equip employees with knowledge of the latest operational research techniques, applications and practice to support strategic, tactical and operational decision making.

Studying at Kent Business School, apprentices will work towards the Level 7 OR Specialist apprenticeship with a top-up option to obtain an MSc in Business Analytics.

An OR Specialist starts by diagnosing and analysing a problem and ends with recommendations for change and supporting implementation. The OR Specialist is typically responsible for structuring complex, non-routine problems and formulating specific research questions to meet their clients' requirements. They address these questions by selecting one or more appropriate OR methods, identifying and obtaining data,

carrying out rigorous analyses and quality checking their and others work. A key part of their role is communicating impartial, pragmatic analysis and recommendations, together with limitations and associated risks, to both technical and non-technical audiences alike.

Key duties of an OR Specialist include:

- working with clients to understand problems and capture requirements
- using formal and informal methods to understand an organisation's systems and processes
- relating their understanding of a client's problem and organisational context to a set of OR problem archetypes and OR methods
- carrying out analysis using a range of OR methods, adapting and developing them to meet client needs while understanding their limitations
- identifying available data to help solve a problem and knowing how to acquire and process data taking into account data protection principles
- developing and implementing methods to quality assure their work and others' analyses
- managing OR projects, budgets and staff
- maintaining professional capability by tracking developments in the field of OR and improving managerial, networking and leadership skills

- identifying new opportunities for applying OR techniques within their or their client's organisation and sharing best practice inside and outside their organisation.

Our apprenticeship course will:

- provide apprentices with a course of academic study in OR (20% of an apprentice's paid hours to be spent completing off-the-job training)
- provide apprentices with one-to-one support, self-directed learning activities and assignments, residential sessions and other activities to enhance the learning experience
- offer apprentices the opportunity to gain an MSc degree on top of their apprenticeship (subject to the work-based project report meeting the requirements of an MSc dissertation)
- support employers with timely registration of apprentices and regular monitoring and reporting of apprentices' progress and performance.

Cost

Up to 100% of training costs are covered by the apprenticeship levy or by government co-investment.

The full standard for the Operational Research Specialist is available on the Institute for Apprenticeships website:

www.instituteforapprenticeships.org/apprenticeship-standards/operational-research-specialist-v1-0

Kent Business School

Kent Business School, a large and thriving division of the University, prides itself on championing sustainable innovation through high-quality research and education that impacts business and society. Kent Business School is one of just 1% of business schools worldwide to achieve triple accreditation with EQUIS, AMBA and AACSB.

Employer case study – GORS

Kent Business School is the supplier of the education component of the apprenticeship agreement with HMRC, the contracting organisation for the Government Operational Research Service (GORS). The focus of the OR apprenticeship is to equip individuals with the full range of OR skills and knowledge needed by different job roles within GORS, including data analytics, machine learning, time series forecasting, optimisation, simulation and spreadsheet modelling, project management and Soft OR.

“I am delighted that KBS are running our apprenticeship. The course fulfils all our requirements with the added bonus that on completion you can opt to do a Master’s at no extra cost. You’ll gain the skills to do good OR in any environment. I can’t wait for our first cohort to start!”

Alec Waterhouse, Head of Modelling, Department for Business, Energy & Industrial Strategy (BEIS)

Qualifications pathway

This table shows a detailed curriculum of modules studied during the apprenticeship.

Module title	Credits	Year
Simulation Modelling	15	1
Big Data Analytics and Visualisation	15	1
The OR Specialist in a Modern Organisational Context	15	1 and 2
Advanced Spreadsheets and Decision Support Systems	15	1
Business Statistics and Python	15	1
Machine Learning and Forecasting	15	2
Project Management	15	2
Prescriptive Analytics for Decision Making	15	2
Problem Structuring Approaches for OR	15	2

Entry requirements

The English and Maths requirement for entry onto the apprenticeship is Level 2 (GCSE equivalent) A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL. Applicants applying for this programme with the MSc top up should hold an undergraduate degree or equivalent qualification. Consideration will be given for those applicants who hold relevant work experience in place of a formal first degree.

Duration

Twenty-four months excluding the end-point assessment.

Qualifications gained

The apprenticeship is underpinned by Kent Business School’s MSc in Business Analytics. On successful completion of the end-point assessment, apprentices will hold an apprenticeship qualification and (subject to the work-based project report meeting requirements of a dissertation research project) an MSc Business Analytics degree.

CONTACT US

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