

## Masters Degree in Data Centre Leadership and Management

3 YEARS DISTANCE LEARNING

The **Global Leader in Technical Education**  
for the **Digital Infrastructure Industry**

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### Learner Profile

This Masters Degree is suited to leaders and senior managers working in data centre facilities wishing to form the elite group of worldwide data centre professionals.

### Pre-Requisites

This program has been designed for people in leadership and management positions within data centre facilities.

CNet will consider all applications individually, taking into account each applicant's experience and qualifications.

### We encourage you to apply if you:

- ▶ Work in a data centre facility
- ▶ Experience: Have at least two years at middle or senior management level in a data centre context

It would be advantageous if you have a first or second class degree from a UK university, or equivalent from an overseas university.

Those applicants for whom English is not a first language will be expected to demonstrate a certificated level of proficiency of at least IELTS 6.5 or equivalent.

### Program Objectives

The aim of this Degree is to unite the existing knowledge and skills of data centre professionals with essential new learning centred around leadership and management within a data centre environment and award a top level degree qualification.

### Qualification

- ▶ Masters Degree in Data Centre Leadership & Management (MA) - a Level 7 qualification
- ▶ Graduates will be invited to a Degree graduation ceremony and can utilise a post nominal title, using the initials MA after their name

## Masters Degree in Data Centre Leadership and Management

### Overview

Data centres are complex facilities that are expected to deliver faultless service and financial results in a world of rapidly changing technologies, business pressures and environmental expectations.

In order to achieve this, data centres need highly capable leaders and managers - individuals who are capable of dealing with business complexity and technological change with the knowledge and skills to ensure their teams deliver against consistently challenging objectives.

The Masters Degree in Data Centre Leadership and Management is a unique program, which has been designed in collaboration with the industry to advance data centre professionals worldwide. No other university program offers data centre professionals this high level leadership and management education tailored to the data centre sector.

The program harnesses CNet's unique insight into data centre operations and expertise in business leadership and management. Topics have been selected on the basis of feedback from the industry and data centre professionals who are themselves involved with delivering the program alongside other hand-picked specialists. The content of the Masters is re-written each year to ensure it reflects the constantly evolving nature of the sector.

Delivery of the program is through distance learning, meaning that learners can study at times that are convenient to them. They can also easily communicate with their tutors and each other wherever they are in the world.

### Structure

Primarily this three year program is based around supported online distance learning via a learning management system, providing flexibility and complete interaction every step of the way. Learners will be supported by the CNet team, specialist academic staff and industry specialists, all with the aim of creating an enriched shared learning experience. Each year there is an optional Bootcamp in Cambridge, UK for those that can attend.

The program is run across two learning periods per year. There are two points of entry each year, one in January/February, the other in September. Each module is formally assessed.

### Program Requirements

As a distance learner, you will also need a suitable computer with internet connection, together with sufficient IT competence to make effective use of word processing, internet and email.

# Masters Degree in Data Centre Leadership and Management Content

## Year 1 - PG Certification (PGCert)

The first year of the program enables you to develop your expertise in three key themes that are at the heart of any business: leadership, sustainability and financial management. The program starts with an introduction to leadership in the data centre sector, exploring different approaches to leading in a complex and dynamic business. You will then go on to look at issues of sustainability and design, from the business management perspective. Leaders also need a sound understanding of money issues, so financial management is also included coupled with how financial considerations influence you as a leader.

### Data Centre Leadership

- ▶ Evolution of leadership
- ▶ Complexity theory, dynamic organisational environments, strategic alignment in organisations, systems theory
- ▶ Emergent leadership theory in dynamic environments
- ▶ Internal business environment analysis and organisational dynamics
- ▶ Models of strategic analysis
- ▶ The role of leaders in fostering cultures of innovation, creativity and change capability in dynamic environments
- ▶ Change management

### Sustainable Design for High Capacity Data Centres

- ▶ Modular data centre design for reliability, scalability, efficiency and sustainability
- ▶ Management of "utility" operations like electricity, heating and cooling from a usage, efficiency and cost saving perspective
- ▶ Environmental monitoring technologies
- ▶ Maximising system utilisation for best efficiency
- ▶ Continuous commissioning
- ▶ Use of cloud technology to minimise the impact of data centres on the environment

### Finance for Decision Making

- ▶ Overview of the financial system
- ▶ Decision making and problem solving in theory and practice
- ▶ Financial objectives and strategies linked to general strategies and environmental circumstances
- ▶ Corporate governance issues
- ▶ Efficient/inefficient markets and behavioural finance
- ▶ Financial risk - types and coping mechanisms
- ▶ Relationship between financial risk and expected return
- ▶ Cost of capital: WACC and CAPM; Gearing
- ▶ Treasury management and control of working capital
- ▶ Investment appraisal

## Year 2 - PG Diploma (PGDip)

The second year takes your expertise to the next level. You will start off by exploring key data centre issues of infrastructure management, security and disaster recovery, in particular looking from the perspective of the business. To be successful, a data centre business is dependent upon its people, so you will explore human resource management, organisational behaviour and strategies for maximising performance in teams. You will also develop your understanding of decision making, which is particularly important in critical services.

### Data Centre Infrastructure Management, Security and Disaster Recovery

- ▶ Asset tracking ("Cradle to Grave")
- ▶ Change management
- ▶ Analysis of virtual/logical systems and how they interact with physical hardware
- ▶ Management & resilience high capacity storage in complex data centres (especially related to disaster recovery scenarios)
- ▶ Consolidation of resources/locations
- ▶ Optimising physical infrastructure (including space management) to enable higher capacity
- ▶ Multi-layered monitoring
- ▶ Future strategic planning via modelling scenarios
- ▶ Physical security & data security
- ▶ Virtual digital security (especially in co-location environments)
- ▶ Identification of data centre infrastructure risks and vulnerabilities, mitigation techniques and recovery policies
- ▶ Governance relating to data protection, safe harbour and other compliance regimes
- ▶ Evaluation metrics

### HRM and Organisational Capability Development

- ▶ Managing human resources for optimal performance
- ▶ Organisational behaviour
- ▶ Developing and managing structures for continued capability growth
- ▶ Managing contractor arrangements and a contingent workforce
- ▶ Knowledge management

### Decision Making in Critical Services

- ▶ Risk identification and mitigation
- ▶ Sense-making and management behaviour during critical incidents
- ▶ Response to critical incidents and first response management
- ▶ Managing consequence
- ▶ Managing human responses during times of crisis
- ▶ Managing and evaluating service level agreements (or similar)
- ▶ Critical infrastructure asset management

## Year 3 - MA

The final year expands your horizons even further, giving you the chance to develop your thought leadership and address specific business issues. First, in the "Contemporary Issues in Leadership and Management" module, you will explore themes in the data centre sector and gain an in depth understanding of issues that are important to you. Next, you will develop your research skills, giving you the expertise to frame, plan and deliver research - this will provide a platform for your academic studies and will also enable you to develop new, credible and robust knowledge in your business. Finally, you will put all of your learning into practice by developing and delivering a major project ("dissertation" or "thesis"). You can look at this as a piece of work which could address a live issue in your workplace, or be based on a theme in the data centre sector as a whole. Your major project will be one of the defining moments of your Masters Degree program and could open the door to further study or career development.

### Contemporary Issues in Leadership and Management

- ▶ Leadership and CSR
- ▶ Technology advancements and implications
- ▶ Sustainability and environmental issues
- ▶ Globalisation and offshoring
- ▶ Standards and quality management
- ▶ Other topics as identified by industry partners

### Research Methods & Post Graduate Major Project

- ▶ Intellectual and practical skills to frame, plan and deliver research
- ▶ Analysis and interpretation of data generated
- ▶ Bringing this into action through a major research project, based on your own interests and providing a culmination of your work on the Masters program