

Kannegieter College provides the most relevant and real life Data Centre courses available in Europe. On this course, Technicians will gain a comprehensive understanding of every aspect of the data centre and its operations to help them carry out work in the data centre effectively and with minimal risk.

The skill and knowledge of today's Data Centre Technicians have a major impact on the smooth running of a data centre facility.

With a thorough understanding of the physical infrastructure, issues can be identified and faults can be rectified quickly. In many cases, they can be prevented altogether.



Who should take this course

Students will probably be working in a data centre or have a desire to work in one.

Prerequisites

There are no formal prerequisites for the course.

What will you learn?

This comprehensive data centre technician course is designed to give technicians a comprehensive understanding of every aspect of the data centre and its operations including;

- What Data Centres do and the Different Types
- Understanding the 4 most important factors: Power, Cooling, Cabling, Premises
- Standards, Certification and Compliance
- The Physical Infrastructure in detail
- Key Operational Information and Parameters
- Important Processes and Procedures and the Technicians role within them
- What to Maintain, How and When
- Key Considerations When Installing new Equipment (IT and Infrastructure)

Course content

- Introduction to data centres
 - The data centre market
 - Data centres vs computer rooms
 - Different types of data centre
 - The international data centre standards
 - Understanding Availability and Resilience
 - N, N+1, 2N, Tiers/Ratings/Classes etc.
- The Physical Infrastructure - IT Systems and their correct installation
 - The IT equipment which is housed in the data centre. Servers, Storage, Networking, IT Security
- Space and Places
 - Location, the rooms we need in our data centre and some basic considerations for the facility
- Raised access floors
 - Raised floors do not have to be used in a computer room but many computer rooms do have them. When they are used they must be correctly engineered
- Racks and computer room layout
 - One of the most important considerations in the design of the data centre is the choice of racks and the layout of the computer room. If the correct rack configuration and layout is chosen it will help to improve the efficiency of the room and reduce the running costs

Course content

- Introduction to data centres
 - What is a Data Centre
 - Data centres vs computer rooms
 - Different types of data centre
 - The international data centre standards
 - Understanding Fundamental Design Principles
 - Certification
 - Compliance issues
 - Codes, Regulation and Best Practice
 - Understanding resilience models N, N+1, 2N, Tiers/Ratings/Classes etc.
 - Building requirements
 - Management Organisation
 - The roles of IT and Facilities
- The Infrastructure - IT Systems and their correct installation
 - Servers, Storage, Networking, IT Security
 - Understanding Equipment Specifications
 - How to Install Equipment Correctly
 - Improving Airflow around IT Equipment
 - Understanding Efficiency Settings in IT Equipment
- Raised access floors
 - Understanding floor strength
 - Standards
 - Correct sealing
 - Understanding the importance of floor heights
- Racks and computer room layouts
 - Hot and cold aisle concept
 - 7 and 8 tile pitch models
 - Server and communications racks
 - 2 and 4 post designs
- Power
 - Overview of power systems
 - Electrical Infrastructure components and paths
 - Power, kW and kVA
 - Power factor issues
 - Single v 3 phase distribution
 - Rating, Tier and Class 1-4 models
 - Backup Power Options: Generators and UPS
 - Looking after batteries and UPS
 - Power Distribution units
 - Earthing, grounding and bonding
 - Monitoring, Measurement and Periodic Testing

Course content

- Cooling
 - Air conditioning and cooling principles
 - Why we need cooling
 - Available technologies and how they work
 - Hot and cold aisle layouts and variations
 - The Importance of Airflow
 - DX v central water chiller options
 - ASHRAE, TIA and CIBSE requirements
 - Problems Caused by Low humidity
 - Ventilation and filtration requirements
 - Energy saving techniques e.g. dry cooler, air economiser, water economiser
 - International Differences: kW v tons v BTU of cooling
 - Hot aisle/cold aisle options
 - Enclosed cold and hot aisles
 - Other rack cooling options
 - Side to side cooling for large Cisco switches
 - Water cooled racks
 - CO2 cooled racks
 - Spot cooling
 - Rating, Tiering, Class requirements
 - Monitoring, Measurement and Period Testing
 - Efficiency Metrics
- Cabling
 - Cabling Solutions. Getting it right
 - Organising telecommunications rooms
 - Looking after the cables and containment
- Key Operational Parameters
 - Optimum running conditions
 - Understanding the limitations
- Processes and the Technicians role
 - Types of maintenance, Reactive, Preventative, Predictive
 - Checklists
 - Organising, recording maintenance and stock
 - What Infrastructure needs maintenance. What is needed and how often
 - Keeping it clean and general housekeeping
 - Monitoring
 - Using BMS and DCIM
 - Incident Management
 - Change Management
 - Change Approval
 - Permits to work
 - Risk Assessments and Method Statements
 - Acceptance of work
 - Asset and Configuration management
 - Keeping an asset register
 - Labelling and Documentation
 - Updating records and drawings

Course content

Processes and the Technicians role

- Capacity management
- Capacity planning for floor loading, physical space, power and cooling
- Health and Safety management
- H&S self-assessment for data centres
- Fire engineering and system integration
- Availability management
- Business Continuity & Disaster Recovery
- Security and Fire management
- Physical security and access control
- Fire plans and management
- Energy and Resource management
- 'Green' metrics such as PUE Layout, power and cooling for optimal efficiency

Get certified

If you complete this course and pass the exam you will be awarded a certificate and the right to use the DCT logo and the DCT designation after your name whilst your certificate is valid.

Praktische informatie



Kosten
€ 2145,-



Studieduur
3 dagen



Lestijd
09.00 - 17.00 uur



Lesplaatsen
Amersfoort of Brussel



Minimale groepsgrootte
6 personen

Bezoek onze website voor meer informatie over actuele cursusdata. Inschrijven kan via het online inschrijfformulier.

Cursus op maat

Kannegieter College kan deze cursus incompany verzorgen op elke gewenste locatie in Nederland of België. Ook is het mogelijk dat deze cursus in het Engels gegeven wordt. U kunt hiervoor een "cursus op maat" aanvragen via info@kannegieter.be

Op al onze cursussen zijn de Algemene Leverings- en Betalingsvoorwaarden van Kannegieter van toepassing evenals de Algemene Voorwaarden van Kannegieter College.