

Data Center Cooling Fundamentals Part 1



Understand the challenges caused by increasing thermal densities and the need for thermal control in a data center environment. This course addresses industry best practices used to optimize energy efficiency. Additionally, an in-depth analysis is conducted on several data center designs using both CFD modeling software and cooling path management. Pressure, temperature and airflow are tested to identify where and how improvements can be implemented.

Learning Outcomes

- Recognize how each type of datacom IT equipment affects facility load
- Estimate the overall heat load when provided with all necessary variables
- Recognize the importance of each of 5 design considerations for data center cooling systems
- Identify the types of chillers and condensers
- Recognize basic design and operation elements for each piece of facility equipment
- Recognize the important piping design considerations for facility and data center integration
- Recognize the benefits and concerns of vertical under floor and vertical overhead delivery methods
- Recognize the importance of the chiller plant in air cooling rooms
- Identify the key elements to consider when selecting air cooling systems
- List the key properties and usage considerations of water, Fluorocarbons and Refrigerants
- Identify why and when liquid cooling is a superior option to air cooling
- Indicate the basic cost considerations and test objectives for each of the 5 commissioning levels

5 reasons to choose our courses:

1

Courses aligned to international standards

2

Expert instructors with over 10 years experience

3

Interactive learning experience

4

Blended learning solutions (classroom and online)

5

Specialist career progression tracks for advanced learning

Who should attend?

Any individual directly or indirectly involved in the management or operation of an existing data centre; or in the exploration, design or build phase of a new project, including:

- Data Centre Operator
- Project Manager
- OEM Supplier
- Facilities Manager
- Sales Engineer

Course Content

- 5 design considerations
- Types of chillers and condensers
- Vertical under floor and vertical delivery method
- Cost considerations

Price: £300 | €400 | \$500