

Mechanical Services Explained

Agenda

DAY 1 - Heating

09:15 *Arrival / coffee / tea*

09:30 **Session 1: Heating Heat Transfers in Buildings**

- How heat is lost from buildings
- How to reduce energy use: calculation of building heat loss
- A brief review of the latest Building Regulations

11:00 *Coffee / tea break (15 mins)*

11:15 **Session 2: Ventilation**

- Increasing the importance of ventilation heat loss
- Fresh air requirements

13:00 *Lunch (60 mins)*

14:00 **Session 3: Heating Systems**

- A review of the advantages & disadvantages of the different types of heating system

15:15 *Coffee / tea break (15 mins)*

15:30 **Session 4: Plant Sizing and Controls**

- Energy Trends
- Boiler Sizing
- Effective & efficient controls & types of control system

16.00 – 16:30 **Q & A**

For more information about this course contact the training team:

training@cibse.org | cibse.org/training | +44 (0)20 8772 3660

Day 2 – Cooling and Air-Conditioning

09:15 *Arrival / coffee / tea*

9:30 **Session 1: Cooling and Air Conditioning**

- Heat Gains & Assessment of Cooling Loads
- How to calculate a cooling load
- How to reduce cooling & plant requirements

11:00 *Coffee / tea break (15 mins)*

11:15 **Session 2: Air Conditioning Systems**

- A review of the different a/c systems available & their relative merits
- Latest Developments

13:00 *Lunch (60 mins)*

14:00 **Session 3: Plant & Equipment**

- Types of equipment & their standards of use e.g. fans, filters, heat exchangers & humidifiers

14:15 *Coffee / tea break (15 mins)*

15:30 **Session 4: Refrigeration**

- Understanding how refrigeration works
- The refrigeration cycle
- plant & equipment
- the issues associated with refrigeration systems

16.00 – 16:30 **Q & A**

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Day 3 – Water Services

09:15 *Arrival / coffee / tea*

9:30 Session 1: Water Services

- Hot & Cold-Water Services: Explanation of different water service systems including current developments.

11:00 *Coffee / tea break (15 mins)*

11:15 Session 2: Legionnaires Disease

- Explanation of Legionnaires Disease
- consideration of its wider impact on Building Services Engineering
- professional responsibilities

13:00 *Lunch (60 mins)*

14:00 Session 3: Drainage

- A brief overview of the principles of drainage systems above & below ground and their design

15:15 *Coffee / tea break (15 mins)*

15:30 Session 4: Building Regulations

- The course concludes with a review of the significant impact of the latest Building Regulations

16.00 – 16:30 Q & A

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