

# Higher Nitec in Integrated Mechanical & Electrical Design

HF3MD

Higher Nitec in Integrated Mechanical & Electrical Design

Specialisation / Option: Air Conditioning and Mechanical Ventilation Systems Design

3 month IA Duration

MD43005FPE-1

1. Estimate ACMV load for simple buildings application
2. Perform energy efficient air-conditioning equipment selection (Single split units/Multi split units)
3. Produce schematic and single line layout drawings
4. Produce complete air-conditioning drawings for submission to authority

HF3MD, HF2MD, HFXMD

Higher Nitec in Integrated Mechanical & Electrical Design

Specialisation / Option: Air Conditioning and Mechanical Ventilation Systems Design

6 month IA Duration

MD53004FPE-1

MD53005FPE-1

1. Estimate ACMV load for simple buildings application
2. Perform energy efficient air-conditioning equipment selection (Single split units/Multi split units)
3. Produce schematic and single line layout drawings
4. Produce complete air conditioning drawings for submission to authority
5. Estimate cooling load for non-residential buildings application
6. Perform energy efficient air-conditioning equipment selection
7. Produce air-conditioning schematic and layout drawings
8. Produce complete air-conditioning drawings for submission to authority

HF3MD, HF2MD, HFXMD

Higher Nitec in Integrated Mechanical & Electrical Design

Specialisation / Option: Electrical Systems Design

6 month IA Duration

MD53004FPE-2

MD53005FPE-2

1. Prepare power and lighting layout plans
2. Produce single line drawings for electrical distribution systems
3. Produce sub-station drawings
4. Produce lighting and electrical earthing protection drawings
5. Produce ELV system layout drawings
6. Produce telecommunication and data layout drawings
7. Produce electrical and security system (Carpark barrier, AV system, building automation and cable routing schematics drawings)

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Higher Nitec in Integrated Mechanical & Electrical Design

Specialisation / Option: Electrical Systems Design

3 month IA Duration

MD43005FPE-2

1. Prepare power and lighting layout plans
2. Produce single line drawings for electrical distribution systems
3. Produce sub-station drawings

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Specialisation / Option: Plumbing, Sanitary, Drainage and Gas Systems Design

3 month IA Duration

MD43005FPE-3

1. Produce plumbing and sanitary system piping layout drawings
2. Determine plumbing and sanitary pipe sizes
3. Determine water tank capacity of water reticulation system
4. Produce gas system piping layout drawings

HF3MD, HF2MD, HFXMD

Higher Nitec in Integrated Mechanical & Electrical Design

Specialisation / Option: Fire Protection Systems Design

6 month IA Duration

MD53004FPE-3

MD53005FPE-3

1. Produce fire protection systems (sprinklers) schematic and layout drawings
2. Produce fire protection systems (hose reel) schematic and layout drawings
3. Produce fire protection systems (wet and dry riser) schematic and layout drawings
4. Determine equipment (tanks, pumps) and pipe sizing selection
5. Produce plumbing system piping layout drawings
6. Produce sanitary system piping layout drawings
7. Determine plumbing and sanitary pipe sizes
8. Determine water tank capacity of water reticulation system