

FMT407 Indoor Environmental Quality

Level: 4

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JULY

Synopsis:

FMT407 Indoor Environmental Quality provides an insight into the sustainable improvement measures for buildings will be covered in this course. Topics include indoor air quality performance, internal noise issues, thermal comfort, lighting quality and environmental protection.

Topics:

- What is IAQ?
- CO₂, VOCs, Formaldehyde etc
- Human Impact on the Environment
- IAQ Audit Process
- IAQ Measurements
- Building Acoustics
- Thermal Comfort Assessment
- Eco-friendly Interior Lighting Design
- Sustainable Building Materials and their Environmental Impact
- Selection and Evaluation
- Standards and Regulations
- Computational Fluid Dynamics Analysis (CFD)

Learning Outcome:

- Discuss the importance of good indoor environmental quality
- Examine issues pertaining to indoor air quality performance, internal noise issues, thermal comfort, lighting quality, spatial quality and environmental protection, and their conformance to relevant regulations and standards
- Evaluate the Total Building Performance of buildings
- Prepare and organize an IAQ audit
- Recommend appropriate and sustainable building materials and systems for good indoor environmental quality
- Improve indoor environment quality of buildings through careful evaluation and selection of materials and systems

Assessment Strategies (Evening Class):

| Components | Description | Weightage Allocation (%) |
|-------------------------------|---------------------------|--------------------------|
| Overall Continuous Assessment | TUTOR-MARKED ASSIGNMENT 1 | 10 |
| | TUTOR-MARKED ASSIGNMENT 2 | 20 |
| Overall Examinable | Written Exam | 70 |

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|--------------|--|------------|
| Components | | |
| Total | | 100 |