

## **FMT307e Energy Management and Audit**

**Level:** 3

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

**E-Learning:** BLENDED - Learning is done MAINLY online using interactive study materials in Canvas. Students receive guidance and support from online instructors via discussion forums and emails. This is supplemented with SOME face-to-face sessions. If the course has an exam component, this will be administered on-campus.

### **Synopsis:**

FMT307 Energy Management & Audit focuses on the understanding of the energy legislation, codes and regulations, energy management system, building energy audit process, impact of measurement accuracy on audit results and conducting the analysis of audit findings.

### **Topics:**

- Energy Management Overview
- Energy Management Approaches
- Need for Energy Audit
- Types of Energy Audit
- Energy Economic Analysis
- Cost prediction for Energy Saving
- Budget Planning
- Procurement Procedures
- Introduction and Definition of Different Energy Audit Level
- Analysis Methodology and Accuracy for Energy Consumption
- Energy Performance Diagnosis and Analysis
- Audit Report

### **Textbooks:**

Jayamaha, Lal (2007): Energy Efficient building systems: Green Strategies for operation and maintenance McGraw-Hill  
ISBN-13: 9780071482820-AA

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**Learning Outcome:**

- Demonstrate an understanding of energy management approaches
- Discuss the need for energy audit
- Propose analysis methodology for energy management audit
- Implement financial analysis and cost prediction for energy saving
- Analyze energy performance
- Set up energy audit investigation and collection of measurements using different tools

**Assessment Strategies:**

<b>Continuous Assessment Component</b>	<b>Weightage (%)</b>
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2
LAB REPORT	10
TUTOR-MARKED ASSIGNMENT	14
<b>Sub-Total</b>	<b>30</b>

  

<b>Examinable Component</b>	<b>Weightage (%)</b>
Written Exam	70
<b>Sub-Total</b>	<b>70</b>

**Weightage Total** **100**