FEM101e Building Services

Level: 1

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY SEMESTER

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:

FEM101 Building Services provides students an insight into the principles and design of mechanical and electrical building services systems. Building services include air-conditioning and mechanical ventilation system, high and low tension system, standby system, plumbing (hot and cold water supply), sanitary and gas system, fire protection system, lifts and escalators. Relevant local standards and regulations will also be covered in this module.

Topics:

- Cold Water Supply
- Sanitary Drainage System
- Gas System
- Fire Hydrant, Riser and Hose Reel Systems
- Electrical Fire Alarm System and Automatic Fire Sprinkler System
- Basic Refrigeration Cycle
- Air-Conditioning Systems
- Fans and Measuring Instruments
- Lifts and Escalators
- Electrical Distribution and Electrical Power System – Standby Power System
- Security Systems
- Green and Energy Efficient Building Systems and Services

Learning Outcome:

- Name the design principles of the various M&E systems
- Describe the functions and components in the systems
- Demonstrate understanding of installation, testing and commissioning of the systems
- Identify the problem when there is a building services break□down
- Review building services if they adhere to the relevant standards, regulations and safety requirements
- Determine action□to□take when there are faults or break□downs

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2
PRE-CLASS QUIZ	2

TUTOR-MARKED ASSIGNMENT	14
GROUP BASED ASSIGNMENT	10
Sub-Total	**30**

Examinable Component	**Weightage (%)**
Written Exam	70
Sub-Total	**70**

Weightage Total	**100**