

COURSE OBJECTIVE:

This course introduces students to fire technology and its sub-domains. Students are expected to learn about scope, current and future trends in fire industry, jobs, innovations & research opportunities in the field of mining engineering. Course content will be covered through lectures, assignments, case-studies, presentations, documentaries and field visits.

COURSE CONTENT:

Introduction to Fire Technology: Chemistry of Fire, Classification of Fire, Principles of Fire Spread, Explosion, First-aid Fire Fighting Equipment, Fire Prevention, Codes, Ordinances and Regulations for Fire Protection, Fire Protection Systems and Equipments, legal and financial consequences of failure to manage fire and safety, Role of Insurance Industry, Fire Technology Career Opportunities, Fire Safety Challenges in India.

Causes & Prevention of Fire: Accidental Fires, Prevention of Fire, classification of fire extinguishers, water as an extinguishant – its merits, demerits and modification, Fire investigations and case studies of different fire incidents in India and abroad.

Fire Protection in Buildings: Graphic Symbols for fire Protection Plan, Fire Protection – Safety Signs, Legislative requirements for fire protection, preventive and protective methods against fire in a building design, Means of escape.

Overview of Magazines, Journals & Societies active in the field of Fire Technology - Fire Safety Journal - Elsevier, Society of Fire Protection Engineers (SFPE).

COURSE OUTCOMES

After successful completion of course, Students are expected to possess an in-depth understanding and knowledge about the scope, current and future trends in the fire technology, elementary terminologies, learning resources and career-opportunities in the field of fire technology.

EVALUATION

Evaluation will be continuous an integral part of the class only through internal assessment

REFERENCES

1. *HMSO Fire Manuals No.1 – No.12*
2. *Equipment IS Codes.*
3. *Fire Protection Manual By TAC*
4. *Fire Protection literature by Loss Prevention Association.*
5. *Handbook on Building Fire Codes, G.B. Memon, IIT Kanpur*