

COURSE OBJECTIVE:

This course introduces students to mining engineering and its sub-domains. Students are expected to learn about scope, current and future trends in mining 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 Mining: Mining contribution to civilization, mining technology, types of mining, stages in the life of mine, economics of mineral industries, economic analysis of a mineral commodity, the challenges and successes of the mining industry

Mining and its consequences: Government regulations applied to mining, Health and Safety issues in Mining, Environmental Responsibilities

Stages of Mining: General exploration methods, mining methods, drilling and other rock penetration methods, types of explosives, mining equipment selection, Novel methods and advancements in mining technology, Introduction to Mining Seismology, Energy conservation in mining & mineral industries.

Overview of Magazines, Journals & Societies active in the field of mining - The Indian Mining & Engineering Journal (IME), Mining Engineers' Association of India (MEAI), The Society for Mining, Metallurgy, and Exploration, Inc. (SME).

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 mining industry, elementary terminologies, learning resources and career-opportunities in the field of mining engineering and its allied domains.

EVALUATION

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

REFERENCES

Hartmann, Introductory Mining Engineering, Wiley India