## Professional Diploma in Mineral Extraction & Explosion Protection Engineering (Combined course of Mining & Petroleum)

Stage 1- Complete Advanced Diploma in Mechanical Engineering & Year 3 Common course of Professional Diploma in Mechanical Engineering Studies

(Guided study to complete Advanced Diploma in Mechanical Engineering PLUS up to Year 3 of Professional Diploma)

Stage 2-Study the following textbooks

(Self study with presentation of study progress report to complete Professional Diploma in Metallurgical & Materials Engineering- Assessment Fees will be charged only after the student can submit the report for first textbook)

## Year 3 BE (Mineral Extraction Explosion Protection)

PE 21015	Properties of Reservoir Rocks and Fluids
PE 21002 Geol 21002	Drilling Fluids Petroleum Geology
ChE 31013	Chemical Engg. Thermodynamics
PE 31012 PE 31016 PE 31013	Drilling Engg. Formation Evaluation Production Engineering

## Year 4 BE (Mineral Extraction& Explosion Protection)

PE 41014	Natural Gas Engg.
PE 41022	Applied Drilling Engg.
PE 41023	Well Completion and Servicing
PE 41035	Applied Reservoir Engg.

Year 4 BE (Minerals Extraction & Explosion Protection) common to BE (Metallurgy & Materials)

Min501 Mechanical Estimating/ Met501 Mechanical Estimating

Min502 Mechanical Properties of Metals/ Met502 Mechanical Properties of Metals

Min503 Metallurgy/ Met503 Metallurgy

Min504 Engineered Metals/ Met504 Engineered Metals

Min505 Metallurgical Alloys/Met505 Metallurgical Alloys

Min507 Stress Assessment in Metallurgy/ Met507 Stress Assessment in Metallurgy

Min508 Metallic Materials/ Met508 Metallic Materials

Year 5 BE (Minerals Extraction & Explosion Protection) common to BE (Metallurgy & Materials)

Min601 Metallurgical Processing/ Met601 Metallurgical Processing

Min602 Machineries Failure Analysis/ Met602 Machineries Failure Analysis

Min603 Materials Selection in Mechanical Design/ Met603 Materials Selection in Mechanical Design

Min604 Strain Testing/ Met604 Strain Testing

Min605 Applied Metallurgy/ Met605 Applied Metallurgy

Min606 Metals Extraction/ Met606 Metals Extraction

### **Additional Unit**

Met607 Explosive Engineering

## ADDITIONAL STUDY

# Year 6 BE (Minerals Extraction & Explosion Protection) **Explosion Protection**

Lessons+ References

Professional Diploma in Hazardous Safety Engineering

## www.highlightcomputer.com/profdiphazardous.htm

Professional Diploma in Hazardous Safety Engineering

### **Course Objective**

This course provides the information and knowledge related to safely working in hazardous areas, safe working knowledge, safety protection equipments, systems and methods, auditing the safety requirements of hazardous area engineering works such as mining, petroleum, chemical plants ,civil ,electrical and mechanical engineering

#### Course Outline

It consists of 8 units with each 5 credits.

BAE 631E Maintenance & Repair Works in Hazardous Areas

BAE 632E Electrical Wiring in Hazardous Areas

BAE 633E Hazardous Area Safety Audits

**BAE 634 Explosion Protection** 

BAE 635E Testing in Hazardous Areas

BAE 636 E Hazardous Area Inspection

BAE 637E Hazardous Chemical Management

BAE 638E Environmental Engineering in Hazardous Areas

### Study Method & Assessment

The students will need to read the reference materials provided in folder of each unit & write the report on their study for each unit.

The report should contain

- Summary of knowledge acquired in the unit
- Practical methods related to assessment, safe working, protection, technical data, equipments utilized in hazardous areas
- Practical applications in work place
- Specific applications in the area of your choice
- Reference guides etc

Each report should be Arial 11 fonts with 10 to 20 pages written in own words by using English..

Insert the appropriate diagrams & tables, formula and data related to information.