

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA IN MINING ENGINEERING
SEMESTER: V

Subject Name: **Mining and Processing of Dimensional Stone**

Sr. No.	Course Content
1.	Resources of Marble, Granite, Slate, Sandstone and Limestone as Dimensional stones in India, uses, marketing export. Geological, Mineralogical and physico mechanical properties of dimensional stones, Criteria for selection of dimensional stone deposit.
2.	Mining: Convention mining of sandstone, Limestone, Marble and Granite, Wire saw, Chain saw, hydraulic splitting flam jet cutting, water channeling, etc., Blasting in dimensional stone mines, Development of mine, Mine layout, Block yield.
3.	Processing: Dressing, Sawing, Gangs saw, Circular saws, Preparation and mounting of blade/discs and segments, Polishing Manual Mechanical, Various types of polishing machine.
4.	Abrasive: Type, use and selection, shaping.
5.	Tile preparation, Automatic tiling plant, Environmental impact of mining and processing of dimensional stones, Secondary use of quarried land and waste of the industry.

Laboratory Experiences:

1. Study of various dimensional stones found in India.
2. Study of Physio Mechanical Properties of dimensional stones.
3. Study of Mining Methods of dimensional stones.
4. Study of various machines used in dimensional stone mines.
5. Study of Processing of dimensional stones.
6. Study of Tile Preparation.
7. Study of Environmental impact of mining and processing of dimensional stones.

References:

1. Mining Geology, Agor.
2. Gems & Jewelry, Hand Book.
3. Reports on Marble Mining.

