

MINERALOGY AND GEOLOGY.

Elements of these Sciences
 Blowpipe Practice.
 Determination of Minerals.

FRENCH OR GERMAN.

SUBJECTS OF THE THIRD YEAR.

APPLIED MATHEMATICS.

Rigid Dynamics.
 Thermodynamics and theory of the Steam Engine.
 Hydraulics.

EXPERIMENTAL PHYSICS.

Heat: Use of Cathetometer, Dividing Engine, and Spherometer.
 Thermometry and Calorimetry. Principle of Least Squares.

DRAWING.

Subjects of previous years continued.
 Shades and Shadows, Stone Cutting, Perspective.
 Original Designs (Bridges, Roofs, Floors, etc.).

ENGINEERING.

Subjects of previous years continued.
 Levelling and Setting Out Work.
 Application of principles to practical problems connected with the design and construction of various Structures and Machines, *e.g.*, Foundations, Retaining Walls, Arches, Roofs, Bridges, Roads, Railways, Canals, Sewers, Water Wheels, Steam Engines, Hydraulic Machinery, Mining Machinery, etc.
 Practical Astronomy and Geodesy (considering the Earth a Spheroid).

CHEMISTRY (APPLIED).

Mortars and Cements.
 Bricks and Artificial Stones.
 Preservation of Wood, Iron and Stone.
 Water, Air and Sewage.
 Metallurgy of Iron and Steel.
 *Metallurgy of Copper, Lead, Silver and Gold.

*Mining Engineering only.

MINERALOGY

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FRENCH OR

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