

SECOND YEAR.

MATHEMATICS.

Hydrostatics (Chambers's Educational Course).

Optics. (Chambers's Educational Course).

Acoustics. (Chambers's Educational Course).

Descriptive Geometry. (Heather's).

CHEMISTRY.

Applied Chemistry. (Knapp's Technology).

MINERALOGY AND GEOLOGY.

Physical and Chemical character of minerals, including the applications of Crystallography, and the construction of Chemical Formulse.

Classification and description of minerals.

General principles of Geology fully considered.

Geology of North America, with rock formations, and economic minerals of Canada considered in detail.

(Dana's System of Mineralogy, 4th Ed.; De la Beche's Geological Observer; Geology of Canada by Logan and Hunt.)

CIVIL ENGINEERING AND ARCHITECTURE.

Architecture, building, and building materials, and measurement of work.

Bridge construction.

Strength of materials and stability of structure.

Calculation of earth-work in cutting and embankments.

Setting out railway curves and other railway operations.

Road making.

Drainage operations.

Construction of canals, gauging of water-courses, and application of water-power.

Construction of stationary and locomotive steam-engines.

(Weale's Rudimentary Treatise; Haupt's Bridge Construction; Mahan's Civil Engineer; Lardner's Steam-engine and Railway Economy; Practical Mathematics, Chambers's Educational Course.)

DRAWING.

Perspective and projections.

Engineering and Architectural Drawing.