

SUBJECTS OF THE SECOND YEAR.

PURE MATHEMATICS.

Differential and Integral Calculus.
Spherical Trigonometry.

APPLIED MATHEMATICS.

Hydrostatics.
Geometrical Optics.
Plane Astronomy.

EXPERIMENTAL PHYSICS.

Light: Use of the Heliostat and Spectroscope. Experiments
with Lenses and Mirrors. Theory of the Telescope and
Microscope, and Reflecting instruments.

DRAWING.

Subjects of First Year continued.
Coloring and Shading.
Descriptive Geometry, including Projections of the Sphere and
Theory of Mapping.
Machines and Structures.

ENGINEERING AND SURVEYING.

Theodolite Surveying (including laying out Railway Curves).
Principles of Geodesy (considering the Earth a Sphere).
Applied Mechanics.
Theory of Strength of Materials.
Materials of Construction.
Methods and Processes.
Theory of the Theodolite, Transit-Theodolite and Level.

CHEMISTRY.

Practical Chemistry.

CHEMISTRY (APPLIED).

Combustion, Fuel, and Furnaces.
Artificial Lighting.
Explosives.
Laboratory Practice.