

ADVANCED COURSE (FOURTH YEAR).

The work in this course is intended to fulfil the requirements of the final examination for Dominion topographical surveyors.

It is distinguished from the work in the ordinary course not so much by the subjects as by the degree of refinement to which the investigations are carried.

In geodesy the earth is considered as a spheroid.

Text-Books.—Gillespie's Higher Surveying (b), (c), (d).

Green's Spherical and Practical Astronomy (c), (d).

Chauvenet's Spherical and Practical Astronomy.

Gore's Elements of Geodesy (c), (d).

Nautical Almanac, 1894 (c), (d).

Fee for Special Students, \$19.

APPLIED MECHANICS.

STATICS.

The calculation of the stresses in framed structure, solid and riveted beams, arches, etc. Both graphical and analytical methods used.

THEORY OF THE STRENGTH AND ELASTICITY OF MATERIALS.

THEORY OF COMPOUND STRESSES.

DESIGNING OF STRUCTURES in timber, iron and masonry—arches, retaining walls, roofs, bridges, etc.

DYNAMICS.

Representation and measurements of forces and motions.

Principles of work and energy.

Efficiency of machines. Friction.

Transmission of energy—belts, shafts, crank and connecting rod, etc.

Fly-wheels, governors.

Balancing of machinery, etc., etc.

STRENGTH OF THE PARTS OF MACHINES.

MACHINE DESIGN—