

MATHEMATICS.

Freshman Class.

GEOMETRY—Euclid, Books IV, VI, XI, and definitions of Book V, with numerous exercises and problems on the subjects of these books.

ALGEBRA—Theory of Indices, Quadratic Equations, Indeterminate Equations, Involution and Evolution, Proportion, Variation, Progressions, Permutations and Combinations, Binomial Theorem.

(Five hours a week.)

Text-Books: *Chas. Smith's Algebra*; *Hall and Stevens's Geometry*.

Sophomore Year.

TRIGONOMETRY—Solution of Triangles, Use of Logarithms, Measurement of Heights and Distances. The Area of the Triangle. The Circles of the Triangle and of the Regular Polygons.

SOLID GEOMETRY—Prism, Pyramid, Cylinder, Cone, Sphere and Regular Solids.

ANALYTICAL GEOMETRY—Point, Straight Line, Circle, Parabola, Ellipse.

(Four hours a week.)

Text-Books: *Hall and Knight's Plane Trigonometry*, *Loney's Conic Sections*, *Heath's Geometry in Space*.

Junior Year.

HIGHER ALGEBRA (ELECTIVE AND HONOR)—The Binomial, Exponential and Logarithmic Theorems, Series, Continued Fractions, Undetermined Coefficients and Partial Fractions, Probability, Determinants, Theory of Equations. *Hall and Knight's Higher Algebra*.

HIGHER TRIGONOMETRY—De Moivre's Theorem and its Applications, the Circles of the Triangle, Trigonometric Series and Factors. *Loney's Analytical Trigonometry*. (Camb. Univ. Press.)

(Three hours a week.)