

Compounds. Fats. Saponification. Polyatomic and Polybasic Acids. Sugars and Starches. Fermentation. Glucosides. The Aromatic Compounds. Benzol; Phenol; Aniline, &c. The Natural Alkaloids: of Opium; Nicotine; Quinine; Strychnine; Caffeine; Morphine, &c. Albumen. Urea. Uric Acid. Urinary Calculi and other deposits; methods of determining their chemical composition, and presence of Glucose, Albumen, &c., in urine. Analysis of Milk, Alcoholic Solutions, &c.

Text Book: Fownes' Manual of Chemistry (English or American Edition); or Greene's Edition of Wurtz's Elements.

Practical Chemistry.

Systematic Course of Testing for Bases and Acids, with special exercises. Processes for detection of Poisons, examination of Urine for Glucose, Albumen, nature of Calculi and other deposits. Sanitary Analysis,—Atmospheric Air; Water; Mineral Waters.

Text Books: Macadam's Practical Chemistry. Bowman's Medical Chemistry. Special Tables are used in the Laboratory, and reference books may be consulted in the Balance Room.

II. BOTANY.

ProfessorGEORGE LAWSON, PH. D., LL. D.

Lectures three days a week.

The Vegetable Cell: its structure and contents. Typical and *Transformed Cells; Tissues, Parenchyma, Prosenchyma. Minute Structure and Development of the Root, Stem and Leaf. Structure and Development of the Flower, Fruit and Seed.

Vegetable Protoplasm: its structure, chemical character and movements; effects upon it of Light, Electricity, Irritation, Gravitation, Moisture, Gases.

Plant Growth: Relations of the plant to the soil and atmosphere. Diffusion, Osmosis, Absorption, Transpiration, Assimilation. Production of organic matter in the plant: Transmutation or Metastasis. Respiration. Vegetable Growth. Movements, of Chlorophyll, of organs (Circumnutation), Nyctitropic.

Reproduction: Fertilization. The Seed, Germination,—dependent upon moisture, free oxygen, temperature. Effects upon plants of extremes of temperature.

Classification of Plants: The Natural System of Classification. The distinctive structural characters and geographical distribution of the more important natural orders will be given, with special attention to those orders containing poisonous plants, and plants used in medicine.

Text Book: Goodale's Physiological Botany (being Vol. II. of Gray's Botanical Text Book.)

Field Book for Summer Work: Gray's Manual of Botany of the Northern States.

2. Students wishing to attend the above courses may do so either as General Students without preliminary examination,

§ XXXVII.

or as Undergraduates in the Session.

3. Students either at the University or elsewhere.

4. Students who qualify for the degree of Bachelor of Science.

For information, see the names of the students in the Halifax and Lindsay, Nova Scotia, and the names of the students in the University of Toronto.

§ XXXVIII. Year course of study on Monday.

In order to obtain Academic Honors of 100 per cent.

§ XXXIX. Candidates for the Master of Science degree must pass in any person.

§ XXXX. Candidates who obtained a passing grade in the course of one or other of the above courses.

2. The Examination.

(1.) English.

(2.) Latin.

authors, and

(3.) Elements of

including Vectors

Equations, and

easy questions.

* Latin to be taken in the first year. Greek for those who wish to take it. In French, German, and Italian (inclusive).