The lectures on mining are given during the Third Year, and among the subjects taken up the following may be mentioned: Blasting and the nature and use of different Explosives, Quarrying, Hydraulic Mining, Boring, the Sinking, Timbering and Tubbing of Shafts, Driving and Timbering of Levels, Underground Conveyance and Hoisting, Drainage and Pumping, Lighting and Ventilation of Mines, special methods of Exploitation employed in the working of Metalliferous Deposits or of Coal Seams, &c. During this year also, instruction is given in Blowpipe Analysis, the object of which is to enable Students by means of the blowpipe and a few simple reagents to detect the nature of different Minerals or Ores. On account of the small amount of apparatus required, and the rapidity with which accurate results may be arrived at, a knowledge of this subject will be found most useful to those engaged in geological or other field-work.

In the Fourth Year a course of lectures on Metallurgy is given, and assays are made of various Ores, Fuels, &c.

NOTE.—The lectures on Mining and Metallurgy are illustrated by a series of Models of which a list is given on page 62.

IV. SURVEYING AND DESCRIPTIVE GEOMETRY.

Lecturer.—C. H. MCLEOD, MA. E.

Surveying.

This course is designed to afford the Student such instruction as will enable him to be of immediate service upon entering the office of an Engineer or Surveyor, and to qualify him to pass all the examinations prescribed in this subject by the Dominion and Provincial Boards of Land Surveyors.

The course of instruction will be as follows :—

Second Year.—Chain Surveying. Compass Surveying. The use and adjustment of the Transit, Theodolite, Level (Dumpy, Y, and other forms), Sextant. Aneroid Barometer, Plane-table and other field instruments. Contour Surveying. Underground Surveying. Plotting and the best methods of calculating areas, both from the plot and directly from the notes.

In addition to the above this Class will, under the personal supervision of the Lecturer, make a Chain Survey of a tract of country. Each Student will be required to plot the survey from his own notes.

Third Year.—Topography. Methods of Setting out Work. Indirect and Barometric Levelling. Hydrographic Surveying. Spherical Surveying. Practical operations in the Field.

Fourth Year.—Field operations.

Note.—The Field Operations undertaken by the 3rd and 4th years will comprise a contour survey and an angular survey of a piece of ground; the location of a line of road, including the making of preliminary surveys, the ranging of curves, the tracing, levelling and setting out of the line selected; an Hy-