

A new course for the training of Students in
Engineering Physics.

At McGill University the existing course in the Faculty of Applied Science is an excellent one for the preparation of students to become Electrical Engineers.

In the Faculty of Arts the existing Honours course is likewise admirably adapted for sound training in Mathematics or in Physics or in Mathematical Physics. The proposed new course will not replace or interfere with these established courses.

There is however an existing demand for Physicists with a more extended knowledge of practical problems, particularly electrical; and for engineers with a wider and more powerful grasp of Mathematics and of the principles of Physics.

McGill Graduates such as Dr. L.V. King, Dr. R.W. Boyle, and Mr. E.L. Bieler have already received with great benefit the double training indicated above and it is believed that Professors, Lecturers, Laboratories and apparatus are already fully available at McGill, without involving the University in extra outlay.

The work required in the future from Physical Engineers may be summarised as follows :

- (a) To train a body of able men capable of filling the chairs of Professors in Canadian Universities who shall have a wide outlook and a sound knowledge of those domains where Mathematics, Physics and Electrical or other Engineering interact. A man well trained under the new course in Engineering Physics should be capable in due course of filling a chair in Mathematics or Physics or Electrical Engineering.
- (b) To institute a class of highly trained engineers who are capable of overcoming the difficulties and improving the practice in Electrical Power Generation and Distribution.
- (c) A large number of young men is required for the Research Laboratories of General Electric Co., Western Electric, and similar companies. These companies want men with sound knowledge of mathematics and physics and with engineering or mechanical training, in fact they need Physical Engineers.
- (d) If a Research Institute is founded at Ottawa a considerable staff of able young men will be required. There are at present few available in Canada, and if those available are withdrawn from the Universities the result to Education would be serious.
- (e) The discovery and development of electronic valves have opened up new regions to Physicists and Electrical Engineers. Telephony, Wireless Telegraphy and Telephony on land, on sea, under sea, in air, are alike already affected by the use of valves and amplifiers. There is and will be a demand for well trained men, not amateurs, for the Radio-Telegraph Branch of the Naval Service and for the Marconi Wireless Telegraphy Company of Canada, Canadian General Electric Co., and Northern Electric Co.