Ex-cadets who have served in the Army, either in the Regular Forces or during the Great War, include 1 general, 5 lieutenant-generals, 17 major-generals, and 29 brigadier-generals or brigadiers. Eleven knighthoods have been conferred on ex-cadets for distinguished service.

The establishment of the College, as stated in the Act of 1874 (37 Vict., c. 36) was "for the purpose of imparting a complete education in all branches of military tactics, fortifications, engineering and general scientific knowledge in the subjects connected with and necessary to a thorough knowledge of the military profession, and for qualifying officers for command and staff appointments". In addition to the foregoing, the course of instruction is such as to afford a thorough practical and scientific training in civil engineering, surveying, physics and chemistry, English and French. Strict discipline, combined with physical training, riding, drill and outdoor games, forms part of the curriculum.

The College is situated on a beautiful peninsula, one mile from Kingston, with the Cataraqui river emptying into the St. Lawrence river at its junction with lake Ontario on the one side, and Navy bay on the other. The grounds cover about 500 acres. The buildings of the College proper are situated on the abovementioned peninsula, comprising 60 acres. The remainder of the grounds, on which stands the historic Fort Henry, is at the disposal of the College for use as a training area. On the point of the College peninsula is situated Fort Frederick, built in 1837 when Kingston became the capital of Canada, the fort comprising a portion of the defences of Kingston. The College is under the supervision of the Department of National Defence, and is inspected annually by an advisory board composed of leading Canadian citizens, both civil and military, which makes its reports and recommendations to the Minister of National Defence. The staff is composed of a commandant, a staff-adjutant, and a competent staff of civil and military professors and instructors.

A four-year course leads to a "diploma with honours", a "diploma" or a "certificate of military qualification". A number of commissions in the Canadian Permanent Force and the Royal Canadian Air Force, as well as commissions in the British Regular Forces, the Indian Army, and the Royal Air Force, are offered annually to graduates; and for cadets who desire to obtain commissions in the Royal Canadian Navy a limited number of naval cadetships are available each year to cadets who successfully complete the first two years of study and who were under 18 years of age at the time of entry into the College. To those graduates joining the British Army, the privilege of one year's seniority is granted in the British or Indian Armies. This has been arranged in order to equalize the seniority of graduates of the Royal Military College of Canada with those of the Royal Military Academy, Woolwich or the Royal Military College, Sandhurst, since the courses at the latter institutions are shorter than the Canadian.

The principal Canadian universities admit recommended graduates to the fourth year of their civil engineering courses and to the third year of other engincering courses; and some of the universities admit graduates to the third years of arts and science courses.

The R.M.C. diploma is accepted by the Law Societies and Bar Associations of Ontario, Nova Scotia, Quebec, Manitoba, Saskatchewan, British Columbia and Alberta, as the equivalent of a B.A. degree for admission to the study of law. The Dominion Association of Chartered Accountants likewise accepts R.M.C. graduates as registered students under the same conditions as university graduates.