On 10 May 1954 the Council approved the establishment of an Institute of Nuclear Engineering within the university and under the control of the Council "to develop and encourage research in the various fields of nuclear engineering". The Institute was not intended to operate in the same way as a school or department, but rather to embrace the work in this discipline that would be "carried out in the existing schools of the university" (resolution 416). The first meeting of the committee established to run the Institute was held on 7 December 1955, with Vice-Chancellor Professor J. P. Baxter as the Chairman (CN431).

The last meeting of this committee appears to have been held on 20 February 1964, but the finalities of the Institute are unclear. On 11 September 1975 the Vice-Chancellor Professor R. H. Myers gave his approval for the Institute to be "left in existence but inoperative" (file 00015741). The Institute may, however, have been disestablished along with the School of Nuclear Engineering as part of the Vice-Chancellor’s Report on the Review of the faculties of applied science, science and engineering, which was released in July 1985 and approved by Council on 9 September 1985 to be effective from 1 January 1986 (resolution 85/96ci).