

THE CANBERRA UNIVERSITY COLLEGE

DEPARTMENT OF MATHEMATICS

Annual Report - 1958

STAFF

The department commenced the year with a staff of two (Professor Atkinson, and Dr Waugh as Lecturer). During the second and third terms, it was reinforced by a third member of staff, Mr J.B. Miller, previously lecturer in the University of New England. Dr Waugh resigned during the year on being offered an appointment in the University of Western Ontario, Canada; however he was able to delay his departure until the end of the third term, when his teaching responsibilities for the year were accomplished. His position has now been filled by the appointment of Mr J.E. Drummond as Senior Lecturer.

In the departmental office Mrs A. Miksevicius replaced Mrs Thornton. Her work on the new dual-keyboard mathematical typewriter has meant a greatly improved appearance in the lecture notes and example sheets which are distributed to students.

TEACHING

The courses given were Pure Mathematics I, Pure Mathematics IIA and Applied Mathematics I. Both day and night classes were held in Pure Mathematics I.

At the annual examinations seven students sat for Pure Mathematics I, of whom six passed, including one with Honours I and two with Honours IIB. Five sat for Pure Mathematics IIA, of whom four passed. All three who sat for Applied Mathematics I were successful in passing.

EXTRA-MURAL LECTURING

Two seminar papers were given by Mr Miller in the Department of Mathematical Statistics, Australian National University. Papers were also read by Dr Waugh and Professor Atkinson at the Adelaide meeting of the Australian Mathematical Society.

RESEARCH AND PUBLICATION

Mr Miller. A thesis towards the Ph.D. degree of the University of New England was completed, and submitted in November.

Two papers are in the press :

"A continuum of Hilbert spaces in L^2 " (Proc. London Math. Soc.),

"A symmetrical convergence theory for general transforms II" (Proc. London Math. Soc.)

Two papers written in Armidale, have appeared :

"A symmetrical convergence theory for general transforms" (Proc. London Math. Soc. 8(1958), 224-241),

"Series expansions and general transforms", (Proc. Camb. Phil. Soc. 54(1958), 358-367).

Current study and research is in the theory of distributions.

RESEARCH AND PUBLICATION (CONT'D.)

Professor Atkinson: Research was undertaken in the following directions:-

- (i) Boundary problems for linear integral equations; a text on this subject is planned.
- (ii) Periodic solutions of non-linear differential equations.
- (iii) A non-linear partial differential equation.
- (iv) A matrix inequality arising in genetics.

The last two topics arose out of work being carried on in the Department of Mathematical Statistics, Australian National University.

A paper entitled "Oscillation theorems connected with bi-orthogonality" has been submitted for publication in the Australian Mathematical Society's Journal.

A number of reviews of mathematical books and papers were written during the year.

SIGNED: F.V. Atkinson,
Head of Department of
Mathematics.