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THE AUSTRALIAN NATIONAL UNIVERSITY

39/1965

SCHOOL OF GENERAL STUDIES

Department of Applied Mathematics

ANNUAL REPORT - 1964

<u>Staff</u>	<u>Full-time</u>	<u>Part-time</u>
Prof. A. Brown		Miss J. Hughes
Assoc. Prof. R. Van der Borcht		Mr. H.E. Huppert
Mr. J.E. Drummond (Senior Lecturer)		Mr. K. Tognetti
Dr. J.C. Burns (Senior Lecturer)		Mr. C.E.M. Pearce
Mr. S.M.A. Meggitt (Lecturer)		Mr. J.F.G. Auchmuty
Mr. A.L. Andrew (Senior Tutor)		Mr. W.K. Bertram
Mr. A.W. Hope (Tutor)		
Mrs. G.B. Hardham (Secretary)		
Mrs. G. Visvanathan (Typist) [until Nov. 1964]		

At the beginning of the second term the former Department of Mathematics split into two departments; the Department of Pure Mathematics under Professor Hanna Neumann and the Department of Applied Mathematics under Professor A. Brown.

Mr. S.M.A. Meggitt, Mr. A.L. Andrew and Mr. A.W. Hope continued to help with the teaching programme in Pure Mathematics.

Mr. J.E. Drummond returned from study leave in February and in September Professor A. Brown left for one year's study leave to work in the Graduate Aeronautical Laboratories of the California Institute of Technology.

The part-time tutors helped with a number of first and second year tutorials. Mr. W.K. Bertram and Mr. J.F.G. Auchmuty worked as student assistants, the former during January and February, the latter in December.

Courses, Enrolments and Examination Results

This year we have introduced a separate Honours Course of Lectures in Applied Mathematics I in order to cater more adequately for the students of higher ability.

The following table shows the enrolments in each unit and the examination results.

Examination Results

Unit	Enrolments	Number of Candidates	Passed	Failed	Absent
App. Maths I (Pass)	52	48	34	11	3
App. Maths I (Honours)	12	10	10	-	-
App. Maths II	37	33	24	8	1
App. Maths III	9	9	8	1	-

Although a pass-rate of 76% in Applied Mathematics I in 1964 is not much higher than the corresponding pass-rate of 71% in 1963, there is no doubt that students have benefited greatly from having two distinct courses tailored to meet their respective needs.

Of the twelve students who enrolled for the Applied Mathematics I (Honours) course ten sat for their final examinations. Results in these examinations (two High Distinctions, two Distinctions and six Credits) show that the students selected on the basis of their leaving certificate examinations were able to work successfully at the advanced level of this course.

Research and Other Activities

Five members of the Department took part in the Research Conference on Applied Mathematics and Statistics which was held in Canberra in January 1964.

Associate Professor Van der Borcht and Mr. S.M.A. Meggitt spoke at the Symposium on Massive Stars held during the ANZAAS Congress in Canberra in January 1964.

Professor A. Brown attended the Meeting of the Australian Mathematical Society at the University of Adelaide in May 1964.

Dr. J.C. Burns and Associate Professor Van der Borcht spoke at the Joint Colloquia held by the Departments of Mathematics of the Institute of Advanced Studies and the School of General Studies.

Dr. J.C. Burns addressed the Colloquium of the Department of Agricultural Physics, C.S.I.R.O.

List of Publications for 1964

A.L. Andrew,

- Two Properties of Integers, Math. Gazette, 48, 285, 1964.

A. Brown and A.L. Andrew,

- A Property of the Tetrahedron, Aust. Maths Teacher, 20, 43, 1964.

R. Van der Borcht,

- The Evolution of Massive Stars initially composed of Pure Hydrogen, Austr. J. of Phys. 17, 165, 1964.
 - Overtone Pulsations of Massive Stars, Bulletin of the Royal Belgian Academy of Sciences, October, 1964.
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