

REPORT OF THE PRESIDENT
OF THE UNIVERSITY OF BRITISH COLUMBIA
FOR THE ACADEMIC YEAR ENDED
AUGUST 31, 1944.

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REPORT OF THE PRESIDENT

To the Board of Governors and
the Senate of
The University of British Columbia

Gentlemen:

I have the honour to submit the following report on the work of the University for the academic year ended August 31st, 1944. The annual reports of the Deans of the Faculties and of certain other administrative officers are included herein, as is also a list of publications by members of the staff.

I INTRODUCTION:

As I did not enter upon my duties as President of the University until the 1st of August, 1944, I shall not, myself, attempt to enumerate or describe events and developments within the University during the academic year 1943 to 1944 - the period of this report.

I should like, however, to pay tribute to my predecessor, Dr. Leonard S. Klinck, who retired as President on the 30th of June, 1944. The record and reputation of The University of British Columbia is the best evidence of the excellence of his work. I am, personally, grateful to him for his kindness to me and for his willingness to assist me in every way possible.

I should like, too, to join with others in expressing my regret at the death of the late Dr. R. E. McKechnie, who served as Chancellor of the University for so many years. His interest and his support have meant a great deal to The University of British Columbia and we shall miss him greatly.

II GENERAL:

Retirement of President L. S. Klinck:

On June 30th, 1944, Dr. Leonard S. Klinck retired after over twenty-five years of service and leadership as President of The University of British Columbia.

In recognition of his term of service and his distinguished contributions to the University the degree of Doctor of Science, Honoris Causa was granted by the Senate and conferred at the Spring Congregation on May 12th, 1944.

By unanimous action of the Board of Governors the title of President Emeritus was conferred on Dr. Klinck as from the date of his retirement.

Appointment of President N. A. M. MacKenzie:

On the recommendation of the Special Committee Appointed to Consider the Selection of a Successor to President L. S. Klinck the Board of Governors at the meeting on January 31st, 1944, approved of the appointment of Norman Archibald MacRae MacKenzie, M.M. and Bar, B.A., LL.B.(Dalhousie), LL.M.(Harvard), LL.D.(Mount Allison and New Brunswick), K.C., F.R.S.C., President of The University of New Brunswick as President of The University of British Columbia as from July 1st, 1944.

Teaching Staff:

The numbers of members on the teaching staff for the academic year 1943-44, exclusive of those on leave of absence, were as follows:

Deans of Faculties.....	3
Professors.....	42
Associate Professors.....	29
Assistant Professors.....	30
Lecturers.....	11
Assistant Director of Physical Education.....	1
Instructors.....	12
Honorary Lecturers.....	7
Part-time Lecturers.....	24
Assistants.....	89

TOTAL 248

New Appointments:

Norman Archibald MacRae MacKenzie, M.M. and Bar, B.A., LL.B., (Dalhousie), LL.M.(Harvard), LL.D.(Mount Allison and New Brunswick), K.C., F.R.S.C., President of The University of British Columbia.

Miss Katherine Reebel, B.A.(Penn.College for Women), M.A. (Pittsburgh), M.S.S.(Smith College), Associate Professor of Social Work in the Department of Economics, Political Science and Sociology.

David C. Murdoch, M.A.(Brit.Col.), Ph.D.(Toronto), Associate Professor in the Department of Mathematics.

Vladimir J. Okulitch, M.A.Sc.(Brit.Col.), Ph.D.(McGill), F.G.S.A., Assistant Professor in the Department of Geology and Geography.

Miss Charlotte S. Black, B.Sc.(H.Ec.), (Manitoba), A.M.(Columbia) Assistant Professor in the Department of Home Economics.

Miss Nina H. Morley, M.A.(Toronto), Assistant Professor in the Department of Home Economics.
 William Robbins, M.A.(Brit.Col.), Ph.D.(Toronto), Assistant Professor in the Department of English.
 Mrs. Gwendolen O'Brien, B.A.(London), Lecturer in the Department of Geology and Geography.
 J. H. L. Watson, B.A.(McMaster), M.A., Ph.D.(Toronto), Lecturer in the Department of Physics.
 Kenneth O. Wright, M.A.(Toronto), Ph.D.(Michigan), Lecturer in the Department of Physics.
 Miss Nora Effie Neilson, M.S.A.(Brit.Col.), Instructor in the Department of Dairying.
 Miss Pauline Capelle, R.N., B.A., B.A.Sc.(Brit.Col.), Instructor in the Department of Nursing and Health.
 Mr. Michael Stusiak, M.A.Sc.(Brit.Col.), Instructor in the Department of Chemistry.

Promotions:

Frank Dickson, B.A.(Queen's), Ph.D.(Cornell), from Associate Professor to Professor in the Department of Biology and Botany.
 Melville J. Marshall, M.Sc.(McGill), Ph.D.(Mass.Inst. of Technology), F.R.S.C., from Associate Professor to Professor in the Department of Chemistry.
 George F. Drummond, M.A.(St.Andrew's), M.Sc.(Econ.)(London), from Associate Professor to Professor in the Department of Economics, Political Science and Sociology.
 Allan H. Finlay, M.C., B.A.Sc.(Brit.Col.), M.S.in C.E.(Illinois), Assoc.M.Am.Soc.C.E., from Associate Professor to Professor in the Department of Civil Engineering.
 M. Dorothy Mawdsley, B.A.(McGill), M.A.(Brit.Col.), Ph.D.(Chicago), from Dean of Women and Assistant Professor in the Department of English to Dean of Women and Associate Professor in the Department of English.
 David C. B. Duff, M.A., Ph.D.(Toronto), from Assistant Professor to Associate Professor in the Department of Bacteriology and Preventive Medicine.
 Stephen A. Jennings, M.A., Ph.D.(Toronto), from Assistant Professor to Associate Professor in the Department of Mathematics.
 Jacob Biely, M.S.A.(Brit.Col.), M.S.(Kansas State College), from Assistant Professor to Associate Professor in the Department of Poultry Husbandry.
 Daniel W. Thomson, B.A.Sc.(Brit.Col.), M.A.Sc.(Illinois), from Instructor to Assistant Professor of Mechanical Engineering in the Department of Mechanical and Electrical Engineering.
 Geoffrey B. Riddehough, M.A.(Brit.Col.), M.A.(California), from Instructor to Assistant Professor in the Department of Classics.

Leaves of Absence:

- Dr. George M. Weir, Professor and Head of the Department of Education, for the duration of the war.
- Mr. Henry F. Angus, Professor and Head of the Department of Economics, Political Science and Sociology, for a period of one year as from September 1st, 1943.
- Mr. John E. Liersch, Professor and Head of the Department of Forestry, for a period of one year as from January 23rd, 1944.
- Dr. Hector J. MacLeod, Professor and Head of the Department of Mechanical and Electrical Engineering, half-time, for a period of one year as from April 1st, 1943.
- Mr. F. H. Soward, Professor of History, for a period of one year as from September 1st, 1943.
- Dr. Thomas G. Henderson, Associate Professor in the Department of Philosophy and Psychology, for a period of one year as from July 1st, 1943.
- Dr. Arthur M. Crooker, Assistant Professor in the Department of Physics, for a period of one year as from August 31st, 1943.
- Dr. Kenneth C. Mann, Assistant Professor in the Department of Physics, for a period of one year as from August 31st, 1943.
- Dr. George M. Volkoff, Assistant Professor in the Department of Physics, for the period from September 15th, 1943 to September 1st, 1944.
- Mr. Thomas G. Wright, Assistant Professor in the Department of Forestry, for a period of one year as from October 1st, 1943.
- Mr. Patrick C. F. Guthrie, Instructor in the Department of Classics, for a period of one year as from May 15th, 1944.
- Mr. Robert T. McKenzie, Assistant to the Director, Department of University Extension, from May 1st 1944 to March 31st, 1945.

Appointments Necessitated by Leaves of Absence:

- Mr. R. Keith Brown, B.A.(Brit.Col.), Lecturer in the Department of Physics during the absence of Dr. G. M. Volkoff.
- Alexander P. Maslow, A.M.(Michigan), Ph.D.(California), Associate Professor in the Department of Philosophy and Psychology during the absence of Dr. Thomas G. Henderson.
- Miss Margaret A. Ormsby, M.A.(Brit.Col.), Ph.D.(Bryn Mawr), Lecturer in the Department of History during the absence of Professor F. H. Soward.
- William Petrie, B.A.(Brit.Col.), A.M., Ph.D.(Harvard), Lecturer in the Department of Physics during the absence of Dr. Kenneth C. Mann.

Resignations:

- F. E. L. Priestley, M.A.(Alberta), Ph.D.(Toronto), Assistant Professor in the Department of English.
- Miss Margaret E. Kerr, R.N., B.A.Sc.(Brit.Col.), M.A.(Columbia), Assistant Professor in the Department of Nursing and Health.
- Miss Lois Campbell, M.S.A.(Brit.Col.), Instructor in the Department of Dairying.

Re-appointments following Attainment of Retirement Age:

Mr. J. M. Turnbull, B.A.Sc.(McGill), M.C.I.M., M.Inst.Met., Professor and Head of the Department of Mining and Metallurgy, who reached the age of retirement on July 1st, 1944, was re-appointed for a period of one year as from July 1st, 1944.

Mr. Abram Lighthall, B.Sc.(McGill), Associate Professor in the Department of Civil Engineering, who reached the age of retirement on April 1st, 1943, was again re-appointed for a period of one year as from May 31st, 1944.

Mr. Frank E. Buck, B.S.A.(McGill), Lecturer in the Department of Horticulture, was again re-appointed for a period of one year as from April 1st, 1944.

Appointment of Professor Emeritus:

The Board of Governors at the meeting on February 28th, appointed Dr. E. H. Archibald Emeritus Professor of Chemistry. Dr. Archibald came to the University in September, 1915, and, after many years of faithful service, retired from his duties as Professor of Chemistry in May, 1942.

Appointment to Principalship of Victoria College:

At the meeting on May 29th, 1944, the Board of Governors approved of the nomination of the Joint Committee, representing the Department of Education, the Victoria School Board and the Board of Governors, of John M. Ewing, B.A.(Queen's) D.Paed.(Toronto), of the Provincial Normal School, Vancouver, as Principal of Victoria College to succeed the late Principal P. H. Elliott.

Election of Representative on Senate of the High School Principals and Assistants:

Mr. W. R. McDougall, Principal of the North Vancouver High School, was elected as representative on Senate of the High School Principals and Assistants succeeding Mr. Arnold A. Webster.

Election of Representative of the British Columbia Teachers' Federation on Senate:

Miss Florence S. Mulloy was re-elected as Representative of the British Columbia Teachers' Federation on Senate for a further period of three years.

Election of Representative of Senate on the Board of Governors:

On August 25th, 1944, Mr. A. E. Lord and Mr. H. T. Logan were re-elected as representatives of Senate on the Board of Governors for a period of three years.

Resignation from the Board of Governors:

On March 27th, 1944, the Board of Governors received, with regret, and transmitted to the Honourable the Minister of Education, the resignation of Mr. P. R. Bengough because of his appointment as President of the Trades and Labour Congress of Canada at Ottawa.

Appointment to the Board of Governors:

Mr. R. H. Neelands of Vancouver was appointed by the Lieutenant-Governor-in-Council as a member of the Board of Governors from May 15th, 1944 to August 27th, 1947, to fill the vacancy caused by the resignation of Mr. P. R. Bengough.

Obituaries:

Chancellor R. E. McKechnie:

It will not be easy for the present members of this University to think of its life as apart from the life and person of Robert Edward McKechnie. Since its beginning a member of the governing bodies and for twenty-six years its Chancellor, he has also been its benevolent household spirit. For thirty years, he endowed this place with his ripened and practical wisdom, his vast public influence, his hopefulness in time of trouble, his quiet but unrelenting guardianship of the University's integrity. More valuable even than these has been the gift of a personal affection which, it is not too much to say, became a ruling motive of his life.

Judge F. W. Howay:

It is a mere platitude to say that His Honour Judge Frederic William Howay was a leading citizen of this Province. For a generation he administered justice in its Courts; and for a far longer time he devoted the whole energy of heart and mind to its history and to the preservation of its best traditions. The University is grateful for the memory of his service and for his noble gift to the Library which, happily will keep his name alive for all who love this land.

Mr. P. H. Elliott:

Percy Harris Elliott was one of the earliest members of the University staff, and for many years he had been first,

Assistant Professor and then Principal of Victoria College. The value of his work and personal influence as head of that fine institution cannot be measured in any form of words nor can it be recorded on any monument that is adequate; but it has passed into the lives of many men and women of whom this University is justly proud.

Dr. V. L. Denton:

The members of The University of British Columbia record their deep regret at the untimely passing of Dr. V. L. Denton. They remember with respect and affection his cheerful personality, his willing co-operation, and his general tolerance during the many years when he served as a member of the Senate. His keen interest and unsparing efforts in all phases of education will long be remembered.

Dr. F. J. Nicholson:

It is with regret that we record the death on May 10th, of Dr. F. J. Nicholson who was a very close friend of the University and at one time a member of the Senate. His generous benefactions have been of great assistance to a considerable number of our best students.

Professor Leonard Richardson:

A serious loss was sustained by the University in the sudden death, on October 23rd, 1943, of Professor Leonard Richardson, who had been a member of the Faculty of Arts and Science almost from its beginning. In his many years of faithful service he had endeared himself alike to faculty and students. He will be remembered by all who were associated with him as an outstanding teacher and loyal colleague.

III THE YEAR WITHIN THE UNIVERSITY:

Many matters of interest and importance to the University have occurred during the year but, as all of these are dealt with in the reports of the Faculties and Departments, it is not necessary to give any details about them in this introduction.

IV THE UNIVERSITY IN WARTIME:

Most of the matters of importance under this heading are dealt with in other sections of the report. The statement on the Canadian Army University Course No. 2 is set out below:

Canadian Army University Course No. 2:

During the Session 1943-44 the University of British Columbia, in co-operation with the Department of National Defence conducted a special one-year course in the fundamentals of Mathematics, Physics and Engineering.

The course was open to men between the ages of 17 and 22. The selection of students was made from the list of those certified by the Registrar as having the necessary academic qualifications. Those accepted were enlisted in the Army for active service, and, after preliminary military training, were housed at the Forestry Camp in the University Area. Captain J. A. Dunster commanded the Detachment.

Instruction was established at two levels, Junior and Senior. Those who had completed Senior Matriculation or First Year Arts were admitted to the Senior Level, and those who had completed University Entrance were admitted to the Junior Level. High standing in Mathematics and Physics was required in both levels.

Dr. G. M. Shrum and Professor W. H. Gage were asked to plan the curriculum, and to arrange and supervise the course. Since the University had agreed to grant academic credit to those who obtained satisfactory standing in the final examination it was necessary to devise a curriculum which included the subjects of value to the Army and fundamental to further work in Science at the University. It was also necessary to conduct the course in classes separate from those offered to the regular students.

Instruction was given by members of the University staff in the Departments of Chemistry, English, Mathematics, Physics, Civil Engineering, Mechanical and Electrical Engineering.

Registration at the beginning of the course, which extended for 33 weeks, was 85, with 33 in the Senior group and 52 in the Junior. During the Session 10 Juniors and 10 Seniors withdrew. Of the 65 men who wrote the final examinations, 64 passed or passed with supplementals.

Respectfully submitted,

NORMAN A. M. MacKENZIE,

President.

Vancouver, British Columbia,
June 29th, 1945.

REPORT OF THE REGISTRAR

9.

Registration

	<u>Men</u>	<u>Women</u>	<u>Total</u>	
<u>Faculty of Arts and Science</u>				
First Year.....	376	224	600	--
First Year Home Economics.....	-	36	36	636
Second Year.....	176	159	335	
Second Year Commerce.....	36	15	51	
Second Year Home Economics	-	25	25	411
Third Year	133	113	246	
Third Year Commerce.....	28	15	43	289
Fourth Year	92	105	197	
Fourth Year Commerce.....	33	9	42	239
Graduates.....	67	39	106	
Social Work	3	25	28	
Teacher Training Course	4	22	26	
Directed Reading Courses.....	88)	62)	149	
Less Double Registrations (D.R.C.)	- 26)	- 18)	- 44	106
	1009	831		1840

Faculty of Applied Science

Second Year	178	-	178	
Third Year	126	-	126	
Fourth Year.....	108	-	108	
Fifth Year	93	1	94	
Graduates	9	-	9	515
	514	1		

Faculty of Applied Science(Nursing)

Second Year.....	-	12	12	
Third Year.....	-	13	13	
Fourth Year	-	24	24	
Fifth Year.....	-	9	9	
Sixth Year.....	-	9	9	
Certificate Course	-	31	31	98
		98		

Faculty of Agriculture

First Year	25	4	29	
Second Year.....	19	11	30	
Third Year	14	4	18	
Fourth Year.....	25	2	27	
Graduates.....	5	4	9	113
	88	25		
<u>TOTALS</u>	<u>1612</u>	<u>955</u>		<u>2566</u>
Summer Session 1944	222	219	441	
Botany Evening Class 1943-44.....	9	20	29	
Canadian Army University Course:				
Senior Level	33	-	33	
Junior Level	52	-	52	85

Nationalities of Students (exclusive of students taking the Teacher Training Course, Social Work, Directed Reading Course, Public Health Nursing, and Teaching and Supervision (Nursing)):

British 1893; American 62; Chinese 49; Hebrew 44; Swedish 26;	
Russian 20; Norwegian 18; Ukranian 14; Polish 13; Italian 12;	
Dutch 11; Greek 11; others 202.	
	<u>TOTAL</u> <u>2375.</u>

Geographical Distribution of Students:

From Vancouver and vicinity.....	1495
From Victoria.....	130
From New Westminster.....	152
From other Provincial points.....	683
From points in Canada outside British Columbia.....	99
From other Countries.....	7

TOTAL

2566

Occupations of Parents (exclusive of students taking the Teacher Training Course, Social Work, Directed Reading Course, Public Health Nursing, and Teaching and Supervision (Nursing)):

Accountant 41; Army 36; Banker 12; Barrister 27; Bookkeeper 12;	
Businessman 49; Carpenter 42; Civil Servant 53; Dentist 20;	
Doctor 50; Electrician 21; Engineers: Civil 23, Electrical 12,	
Locomotive 13; Farmer 73; Labourer 12; Lumberman 35; Machinist 15;	
Mechanic 13; Minister 24; Rancher 16; Salesman 47; Shipper 13;	
Teacher 44; others 1672.	
	<u>TOTAL</u> <u>2375.</u>

Location of Graduates:

Number in, -

Vancouver.....	3064
Other parts of British Columbia.....	1720
Other parts of Canada.....	496
British Isles.....	49
United States of America	260
Other Countries.....	46

Number deceased.....	177
Number whose address is unknown.....	981

TOTAL

6793

<u>Session</u>	<u>Arts and Science</u>	<u>Applied Science</u>	<u>Nursing</u>	<u>Agricul- ture</u>	<u>Teacher Training Course</u>	<u>Total Winter Session</u>	<u>Summer Session</u>	<u>Short Courses</u>	<u>Grand Total</u>
1934-35	1238	320	57	71	66	1652	377	165	2294
1935-36	1337	336	68	80	62	1883	464	278	2625
1936-37	1499	366	47	95	42	2049	566	306	2921
1937-38	1590	416	50	100	67	2223	650	279	3152
1938-39	1634	419	59	117	57	2286	659	290	3235
1939-40	1664	434	65	139	69	2371	715	253	3339
1940-41	1724	466	60	166	71	2487	587	206	3280
1941-42	1763	488	63	155	68	2537	457	184	3178
1942-43	1744	522	98	140	34	2538	329	98	2965
1943-44	1709	515	67	113	26	2430	441	131	3002

Comparative Statement of Degrees Conferred
Sessions 1934-35 to 1943-44

<u>Year</u>	<u>M.A.</u>	<u>B.A.</u>	<u>B.Com.</u>	<u>B.Ed.</u>	<u>M.A.Sc.</u>	<u>B.A.Sc.</u>	<u>B.S.F.</u>	<u>B.A.Sc. Nursing</u>	<u>M.S.A.</u>	<u>B.S.A.</u>	<u>Total</u>	<u>Grand Total</u>
1934	11	204	31	-	3	37	-	5	4	12	307	3583
	6	36	5	-	1	5	-	-	1	3	57	3640
1935	14	196	23	-	8	57	-	13	2	19	332	3972
	12	45	5	-	-	5	-	-	-	1	68	4040
1936	15	175	21	-	6	50	-	7	5	16	295	4335
	10	38	1	-	2	3	-	-	3	2	59	4394
1937	21	190	28	-	4	48	-	2	7	14	314	4708
	9	54	8	-	-	6	-	1	1	1	80	4788
1938	20	204	31	-	6	56	-	7	3	19	346	5134
	10	53	3	-	2	4	-	-	-	5	77	5211
1939	19	217	22	-	7	71	-	8	4	22	370	5581
	5	63	6	-	-	9	-	-	1	2	86	5667
1940	30	212	37	-	4	71	-	13	3	18	388	6055
	6	62	1	-	-	1	-	-	1	3	74	6129
1941	21	189	26	-	7	81	1	8	2	19	354	6483
	8	73	9	-	1	-	-	-	3	-	94	6577
1942	14	170	52	-	9	82	3	6	2	26	364	6941
	12	51	1	3	-	2	-	-	2	5	76	7017
1943	13	167	31	2	3	92	2	12	3	25	350	7367
	8	51	1	3	-	1	-	-	1	4	69	7436
1944	6	163	37	1	7	87	3	9	1	24	338	7774

Comparative Statement of Diplomas Issued
Sessions 1934-35 to 1943-44

<u>Year</u>	<u>Teacher Training</u>	<u>Public Health Nursing</u>	<u>Social Work</u>	<u>Occupational Course in Agriculture</u>	<u>Totals</u>
1934	61 3	10 -	- 3	- -	71 6
1935	65 1	15 -	3 7	3 -	86 8
1936	60 -	15 -	- 12	- -	75 12
1937	39 1	16 5	- 19	4 -	59 25
1938	65 -	18 2	1 15	3 -	87 17
1939	54 1	14 1	2 24	4 -	74 26
1940	66 2	12 -	3 23	5 -	86 25
1941	68 -	9 -	1 22	2 -	80 22
1942	59 -	10 1	4 17	4 -	77 18
1943	28 -	27 -	2 12	- -	57 12
1944	24	29	8		61

Honorary Degrees Conferred

13.

<u>Year</u>	<u>LL.D.</u>	<u>D.Sc.</u>	(Honoris Causa)
1930	1		
1931	-		
1932	2		
1933	8		
1934	1		
1935	2		
1936	6		
1937	1		
1938	5		
1939	3		
1940	1		
1941	-		
1942	4		
1943	-		
1944	<u> </u>	<u>1</u>	<u>35</u>

Grand total (including
previous years)

43

Scholarships, Prizes, Fellowships and Bursaries Awarded to Graduates

During the year many scholarships, fellowships, and bursaries have been won by graduates of the University. The following list does not include awards which have been made by the Senate of the University of British Columbia.

Name	Award	Value	Subject	Where Tenable
Blissett, William	Fellowship	-	English	University of Toronto
Clark, Robert M.	Sheldon Travelling Fellowship	\$1200	Taxation	(Harvard) to visit major cities in Canada
" "	Harvard University Fellowship	\$1000	Economics	Harvard University
Cox, Lionel A.	National Research Council Studentship	\$ 750	Cellulose	Cellulose Research Laboratories, McGill University of Toronto
Fowle, C. David	Flavelle Fellowship	\$ 750	Zoology	University of Toronto
Grant, John Douglas	Teaching Fellowship approx	\$ 600	English	University of Toronto
Grassie, Vernon	National Research Council Studentship	\$ 750	Cellulose	Cellulose Research Laboratories, McGill University of Toronto
McDiarmid, Muriel	Fellowship	\$ 500	English	University of Toronto
McGuire, Carson	Scholarship	\$ 600	Education	University of Chicago
Smith, Wilma Gene	Teaching Scholarship	\$1150	Economics	University of California
Thrupp, Sylvia	Guggenheim Travelling Fellowship	\$2300	Mediaeval Social & Economic Philosophy (postponed to 1945-46)	
Underhill, Anne B.	Canadian Federation of University Women Scholarship	\$ 850	Physics	University of Toronto

NOTE: In many cases these scholarships and fellowships carry with them free tuition or exemption from fees (or travelling expenses) in addition to their monetary value.

Value of scholarships, fellowships and bursaries won by our graduates in other Universities and in Institutes in 1944..... \$ 10,450.00

Total value of scholarships, fellowships and bursaries won by our graduates in other Universities and in Institutes since the first awards were made in 1917 \$747,809.00

Respectfully submitted,

CHARLES B. WOOD,
Registrar.

REPORT OF THE DEAN OF THE
FACULTY OF ARTS AND SCIENCE

The work of the Faculty of Arts and Science for the academic year 1943-44 can be presented best by summarizing the reports of the Heads of the various departments.

Department of Bacteriology and Preventive Medicine.

There was a considerable increase in the numbers of students in all the courses offered in this Department.

Research work was continued by all the members of the department.

Dr. C. E. Dolman continued his work in the staphylococcus toxins, particularly in the food poisoning factor. Certain very important findings relating to the feasibility of immunizing human beings against staphylococcal food poisoning were obtained. The National Research Council of Canada made a grant of \$1,500.00 to aid in this research. During the year Dr. Dolman continued to serve as Consulting Bacteriologist to the Vancouver General Hospital. Late in 1943 he was elected a Fellow of the American Public Health Association.

Dr. D. C. B. Duff, in addition to conducting his researches on gas gangrene toxins, continued to serve as Consulting Pathologist to the Fisheries Research Board of Canada.

Dr. L. E. Ranta, as in previous years, gave about half his time to the Connaught Laboratories. His work was chiefly concerned with perfecting a test for the antigenic potency of cholera vaccine. The Western Division of Connaught Laboratories continued its responsibility for releasing batches of cholera vaccine to be shipped all over the world. Dr. Ranta was elected a member of the Technical Committee on Nutrition of the Metropolitan Health Committee of Greater Vancouver.

Department of Biology and Botany.

A revision of the curriculum is proposed in which there would be, in the main, five divisions: Humanities; Languages; and the Biological, Social and Physical Sciences. The inter-relationship of the Biological subjects is discussed and their importance shown in related fields.

Department of Chemistry.

Practically all of the investigations carried on in the Department of Chemistry since the outbreak of the war have been on problems for the Armed Services. Most of these problems have originated in England and have been assigned to the various research laboratories in Canada by the National Research Council of Canada.

The majority of the investigations were on new explosives, some twenty of which were prepared in our laboratories. Two of these explosives, the Department was informed, were improvements over glycerol nitrate as propellants. Unfortunately there was not sufficient raw material for their production on a military scale. The results of these investigations, according to previous agreement, may not be published but are the property of the British and Canadian Governments.

Several other investigations were on war gases. The preparation of organic fluorine toxic compounds, the counterpart of the well known chlorine and bromine war gases used in the previous war received considerable attention.

The detection of Mustard Gas, by methods previously developed by Dr. M. J. Marshall, was investigated at the request of the Department of Chemical Warfare. Another investigation was on the improvement of signal flares used by the Royal Air Force and the Royal Canadian Air Force.

Dr. Marshall received a special invitation to present a paper before the Electrochemical Society in New York. He was unable to attend but prepared a paper based on work carried out by Howard O. McMahon and himself, entitled, "The Molecular Complexity of Some Gases in the High Frequency Discharge". The paper was read by Dr. McMahon.

During the year Dr. W. F. Seyer and his students built a small Fischer-Tropsch unit for liquid fuel production from coal products, by the use of water gas.

Dr. W. Ure made a study of the crystallization of "Picrite", with the object of producing it in a granular form which would have more satisfactory characteristics when compounding the flashless propellant, than has the former needle-like form. The optimum conditions for the production of the granular form were submitted to the National Research Council.

Dr. Ure investigated the various factors which control the reaction between water vapour and certain smoke producing reagents, using a photo-electric turbidimeter as a means of estimating the effectiveness of smoke cover. This work is still in progress.

Dr. J. Allen Harris continued his work on the quantitative determination of tin using organic reagents. He also worked on new methods for the separation of gold and platinum.

Dr. G. Hooley continued his work on the production of foam glass from powdered glass or from slag, which would be suitable as a heat and sound insulator. The work is still in progress.

In September 1944 the chairman of the National Research Committee on Explosives granted the Department permission to discontinue the work on explosives and, at the same time, expressed the sincere appreciation of the Committee of the work that was accomplished.

The work of the Department with no increase in accommodation, has grown to such proportions that a serious situation has arisen. Any number of laboratory sections of eighty, the maximum normal capacity, can be made mathematically, but the lack of laboratory assistants and locker accommodation, as well as time-table restrictions, place a very definite limit upon the number of sections. Furthermore, the chemistry lecture rooms themselves can no longer accommodate the classes.

Department of Classics.

In view of the fact that Mr. Patrick Guthrie was on leave of absence with the Armed forces the work of the Department normally distributed among four instructors was carried by three.

Department of Commerce.

The increasing number of women in Commerce, three in 1939-40, twenty-seven in 1944-45, indicates, in the opinion of the Head of the Department the necessity for courses "designed to meet the peculiar needs of the women".

The Commerce Club graduation banquet was a decided success. The speaker was Honourable E. C. Carson, Minister of Trade and Industry for British Columbia. About 260 were present, many being business men having a keen interest in the University.

During the year field visits were made to some nineteen firms in connection with the classes in Industrial Management and Marketing. The following visitors lectured to the classes:

Mr. C.F.T. Hooper, Canadian Manufacturers' Association.
 Mr. F. Jou Jon Roche, American Can Co., Ltd.
 Mr. A.C. Kennedy, H.R. MacMillan Export Co.
 Mr. Oscar Pearson, Swift Canadian Limited.
 Mr. H.H. Preston, University of Washington, Seattle.

Our thanks are here recorded for the help these leading men in the industrial world gave to our students.

Department of Economics, Political Science and Sociology.

The Head of the Department continued on leave of absence for work with the Department of External Affairs at Ottawa. No courses in Government were offered during the year.

Professor G. F. Drummond, at the request of the Wartime Information Board, prepared a booklet on British Columbia and its Peoples. He also prepared research studies, at the request of the Commission of Inquiry on Forest Resources of British Columbia, on (1) Creation of a Permanent Commission of Forest Industries, (2) Taxation of Forest Resources, and (3) Foreign Exchange and the Export of Forest Products.

Professor Drummond gave a course of lectures under the Department of Extension on Canadian Post-War Problems. He also participated in the CBC programme "Of Things to Come".

Dr. C. W. Topping, under a grant from the Canadian Social Science Research Council, conducted a study of the Canadian family. The study is still in progress. He was elected First Vice-President of the Pacific Northwest Division of the National Conference on Family Relations at the meetings in Spokane. He served also as President of the British Columbia Regional Committee of the National Conference on Family Relations.

Dr. J. A. Crumb acted as a special member of the Vancouver Board of Trade Committee on Post-War Reconstruction. He gave numerous outside lectures and participated with local civic and political leaders in seminars on current economic and political problems.

Social Work is listed under the Department of Economics, Political Science and Sociology. Proposals are under consideration to give further development in this field and to create a separate department. Despite the fact that other schools of Social Work have shown definite decreases in enrolment, the University of British Columbia stood out as the one Canadian institution with increasing enrolment in a field extremely short of workers.

Due to the demand from the field for more training opportunities for social group work, a co-operative arrangement was made with Vancouver Council of Social Agencies to offer a two-week institute conducted by Miss Marjorie J. Smith in the summer of 1944. This was a successful venture attended by thirty-five agency staff members and prospective workers. In June, Miss Smith gave a five-day institute for a group of Agency Supervisors in Victoria. She also conducted a three-day institute on Casework with Children at the Canadian Conference of Social Work in Winnipeg in May.

Department of Education.

Except for minor adjustments in methods courses, the only change in the Teacher Training Course was the addition of a course in Dramatics (one hour weekly). Graduate courses are given on Saturday mornings to a class of teachers from the schools of the Lower Mainland. There is a steady demand for these courses.

Dr. M. A. Cameron prepared, upon invitation, a study of property taxation and school finance in Canada for the Canada and Newfoundland Education Association meeting in Toronto, October, 1944.

Dr. F. T. Tyler engaged in a study of the Terman-McNemar Test of Mental Ability. As chairman of a special committee of the Provincial Committee of Canadian Youth he prepared and arranged the administration of a significant questionnaire on youth problems. During the summer of 1944 he was Visiting Professor at the University of Saskatchewan. At the end of the year he was granted leave of absence to assume, as Lieutenant Commander, the post of Assistant Director of Personnel Selection in the Royal Canadian Naval Volunteer Reserve. His loss will be keenly felt.

The yearly complaint, recorded for nearly two decades, of sections too large, of class-rooms too small and of burdens too great, is again registered, and with much justification.

During the year Dr. G. G. Sedgewick and Professor F.G.C. Wood continued their weekly broadcasts over CBC, much to the delight of the many graduates of the University of British Columbia and of many others who listen in.

Assistant Professor F. E. L. Priestley resigned at the end of June to accept a position at the University of Toronto. His place has been filled by Dr. William Robbins, one of our own distinguished graduates.

Department of Geology and Geography

The four permanent members of the staff were fully occupied with field investigations and research work.

During the college term Dr. M. Y. Williams spent what time was available in studying the fossils and rock material collected on the Alaska Road during the summer of 1943 while working under the Geological Survey of Canada. In the summer of 1944, he was engaged in explorations along the Alaska Road for the Phillips Petroleum Company.

Dr. C. O. Swanson and Dr. H. C. Gunning continued their field work for the Consolidated Mining and Smelting Company during the summers of 1943 and 1944.

Dr. H. V. Warren directed graduate research in metallography and spectroscopic analysis of minerals. He made preliminary investigations on the boron content of quartz and on the search for beryllium. His summers were spent on scientific prospecting on a commercial scale.

The Department again stresses the need for additional laboratory space and for more equipment particularly for the re-organized course in Geography I, inasmuch as this course was elevated to the rank of an optional Science course in the First and Second Years.

Department of History.

Dr. W. N. Sage was elected President of the Canadian Historical Association at the annual meeting in June, 1944. He was also appointed a member of the Historic Sites and Monuments Board of Canada to represent British Columbia, thereby undertaking a portion of the field formerly entrusted to His Honour the late Judge F.W. Howay. In March, 1944, Dr. Sage undertook, upon request, a speaking tour in California, Oregon and Washington, choosing the general topic of Canada's War Effort.

Professor F. H. Soward continued on leave with the Department of External Affairs at Ottawa.

Professor A. C. Cooke gave three Directed Reading Courses in History for the Canadian Legion and regular students, also a course in Social Studies, Education 16.

Dr. Sylvia L. Thrupp was granted leave of absence for 1944-45 to accept a Guggenheim Fellowship. Her leave was later extended to two years, the first year to lecture at the University of Toronto and the second to accept the Fellowship.

The Department anticipates expansion at the close of the war, particularly in the History and Culture of Russia, the Far East and Latin America.

Department of Home Economics.

A start was made with the newly-established course in Home Economics. Courses were offered in the First and Second Years with classes of thirty-six and twenty-four respectively. As no laboratory space was available at the University, arrangements were made with the Vancouver School Board to make use of the facilities at the King Edward High School after school hours and on Saturdays.

Department of Mathematics.

The Department of Mathematics suffered a severe loss in the sudden death of Professor Leonard Richardson in October, 1943. At the opening of the session extra work was undertaken by the Department in connection with the Army Courses, both Junior and Senior, in which Professor Richardson gladly undertook to bear his share. After his death, his colleagues willingly undertook to carry on his courses and the Army Courses as well.

During the period May to September 1944, Dr. F. S. Nowlan taught at the University of Notre Dame.

Again during the year under review, Professor W.H. Gage, at my request, handled the details of the administrative matters of the Department.

The teaching schedules were heavy for those having First Year Arts and Science and Applied Science sections. Because of insufficient staff and class-rooms the sections in all classes were too large.

Department of Modern Languages.

Spanish was re-introduced after a lapse of over twenty years. An auspicious start was made with ninety-five beginners enrolled

The staffing problem in German was even more acute than in previous years owing to the extreme difficulty in securing competent instructors upon short notice after the opening of the session.

Arrangements should be made on a permanent basis to provide for the large classes in Beginners' German and in German 1.

Three students in Third Year French attended the Summer School at Trois Pistoles, Quebec, held under the auspices of the University of Western Ontario. Out of an enrolment of 170 students from various parts of Canada and the United States, four tied for the highest place, three of whom were from the University of British Columbia. These three students, of whom we are justly proud, have returned to the campus with a lively interest in French Canada.

Dr. D. O. Evans was invited by the CBC to serve on a national committee of five on the use of the French language in broadcasting for educational and cultural purposes and as a means to better understanding between English- and French-speaking Canadians.

Department of Philosophy and Psychology.

Two new courses were offered during the year, viz., Psychology 6, Statistics and Psychology 10, Mental Measurements and Psychological Tests.

Professor J. A. Irving was elected Vice-President of the American Philosophical Association in January, 1944. In November, 1943, he was elected a member of the Commission set up by the American Philosophical Society to study the function of Philosophy in liberal education with particular reference to the needs and problems of the post-war period. He is also President of the Pacific Conference on the Teaching of Philosophy.

Department of Physics.

Three members of the teaching staff continued on leave of absence for the year. They were: Dr. A. M. Crooker, with Research Enterprises Ltd., Toronto; Dr. K. C. Mann, Radio Section of the National Research Council of Canada; Dr. G. M. Volkoff, on a secret war project in the Montreal Laboratories of the National Research Council.

In addition to the regular undergraduate work, several advanced courses were offered for graduate students in Physics and related subjects.

From April 1, 1944, Dr. G. M. Shrum served as Acting Director of the newly formed British Columbia Industrial and Scientific Research Council. During the past year he served as a member of the British Columbia War Metals Research Board and also as a member of the National Research Council.

During the period May-September, 1944, Dr. H. D. Smith gave instruction in the United States Navy V-12 Training Programme at the University of Notre Dame and in addition worked in the synthetic rubber project there. This work is being continued here in collaboration with the Notre Dame group.

Dr. William Petrie continued his work on Astrophysics and during the summer of 1944 obtained three hundred stellar spectra with the 72-inch telescope at the Dominion Astrophysical Observatory at Victoria.

Dr. K. O. Wright, on loan from the Dominion Astrophysical Observatory for the year, completed an astrophysical investigation begun at the Observatory.

Dr. J. H. L. Watson continued his investigations on Electron Microscopy begun at the University of Toronto.

Department of Zoology.

Over-crowding in laboratories, shortage of microscopes and difficulty in obtaining class assistants were reported by the Department.

Dr. W. A. Clemens served as a member of the Fisheries Research Board of Canada and was appointed Chairman of the Western Section of the Board's Rehabilitation Committee. An intensive programme for both marine and freshwater fisheries investigations was prepared for British Columbia. During the year Dr. Clemens carried on studies chiefly of marine fishes and bivalves of the B.C. coast. He also made an analysis of the annual collection of sockeye salmon scales and data for the Provincial Fisheries Department and studied the otoliths of halibut for age determination for the International Fisheries Commission.

Mr. G. J. Spencer continued to be, as in previous years, the authority on pest control for Greater Vancouver. His free service to the afflicted citizens becomes more widely known each year as fellow-sufferers discuss their plights and deliverances. He also continued his collections, begun when he joined the staff over twenty years ago. These collections are of three types:

- (1) A systematic collection of all Orders, pinned with exact locality labels, together with vials of all immature forms in alcohol;
- (2) A similar collection of pinned and alcoholic specimens, of economic importance;
- (3) A teaching collection of pinned and labelled adults and immature forms in alcohol, and an alcoholic collection solely for teaching morphology.

Dr. Ian McTaggart Cowan prepared reports on field investigations undertaken over a period of several years for the National Parks Bureau. These reports deal with game conditions in Banff, Jasper and Kootenay National Parks and with the mammals of Kootenay, Mount Revelstoke and Banff National Parks. At the request of the New Mexico office of the United States Fish and Wildlife Service he prepared for study specimens of mule deer from New Mexico with the object of establishing the identity and relationship of a population of deer thought to represent an undescribed race.

Dr. Cowan's curatorial duties in connection with the vertebrate collection housed in the Department's museum occupied considerable time. A collection of 204 mammals, 60 birds and 14 reptiles and amphibians was added and the skulls and skeletons of 53 large game animals were prepared.

Directed Reading Courses.

To assist the Canadian Legion in providing material for instruction for the men and women in the armed services and for Canadian prisoners of war, some twenty-eight courses were made available. These courses were also made available as the usual Directed Reading Courses. Extensive outlines were prepared for certain courses particularly, Economics 4, Money and Banking, by Dr. J. A. Crumb; Economics 6, International Trade, by Professor G. F. Drummond; Psychology 7, Applied Psychology, by Dr. J. E. Morsh; and English 2, Literature, by Professor T. Larsen. The three courses, Economics 4, 6 and Psychology 7, were used extensively for prisoners of war and the standings were determined by the University of London. English 2 had the largest registration among the candidates who completed their work at the University of British Columbia. Forty-two began the work and twenty-five wrote the final examinations. There were no failures and forty-four percent. were in Class I.

On the whole the experiment to offer a large number of Directed Reading Courses was not a uniform success.

No. 2 Canadian Army Course.

Along with other Universities in Canada, the University of British Columbia offered instruction in the No. 2 Canadian Army Course to men enlisted for active service with the Army. Full academic credit for one year at University was given for satisfactory completion of the course, which consisted mainly of Physics, Chemistry, Mathematics, English and certain basic engineering subjects such as surveying, mechanical drawing, engines, and engineering problems. Instruction was given by regular members of the staff. The course was directed and supervised by Dr. G. M. Shrum and Professor Walter H. Gage.

Special Researches.

Reports on the special researches under the supervision, more or less nominal, of the Dean of the Faculty of Arts and Science are listed below. These reports cover the fiscal and not the academic year 1943-44, inasmuch as the reports are submitted at the end of the fiscal year when grants for new or continued investigations are determined.

Department of Bacteriology and Preventive Medicine.

Purification of Staphylococcus Food-Poisoning Toxin

Dr. C. E. Dolman

Miss C. L. Askanasy.

The question of whether or not food-poisoning substance can

function as an antigen was investigated in human beings. It was possible to demonstrate that active immunity to food-poisoning substance had been acquired. Experiments require to be repeated on a larger scale since they not only promise to end a controversy respecting the antigenic properties of the enterotoxin but also furnish hope that immunization against the form of food-poisoning investigated may be practicable.

Gas Gangrene Toxins

Dr. D.C.B.Duff, Mr. Charles Claridge.

The general nutritional requirements of one of the chief gas gangrene bacilli - Clostridium welchii - were investigated. A reproducible, semi-synthetic medium was devised which supplied the gross nutritional requirements of the organism, but which failed to support growth due to its deficiency of "vitamins" or accessory growth substances.

Analysis by fractionation of yeast extract for its content of vitamins was carried out involving adsorption upon fullers' earth, charcoal, etc. It was shown that Clostridium welchii as is the case with certain other Clostridia, requires a complex of accessory substances for normal growth. There were indications that pyridoxine (Vitamin B₆) is probably a stimulating, though not a necessary factor, and that thiamin (Vitamin B₁), riboflavin and inositol are of negligible value in the general nutrition of the bacillus.

Department of Biology and Botany.

Genetics of Economic Plants

Dr. A. H. Hutchinson

Researches were conducted on Phases of Abnormal Seed Development in Medicago (Alfalfa) Hybrids and the Genetics of Cone-Bearing Trees.

Factors Affecting the Basal Metabolic Rate

Dr. J. A. Allardyce

Mr. Ewald Goranson

Mr. Edward Singer

Investigation was undertaken to ascertain the effect of thiamin, riboflavin and pyridoxine, simply and together, on the basal metabolic rate (B.M.R.) of albino rats after induced hyperthyroidism. Data were obtained showing how the B.M.R. varied with length of fasting periods, temperature, time of day, age and sex of rats. Each of the three vitamins in question exerts some lowering effect on the B.M.R. and a corrective action on weight loss. Riboflavin appears to be the most effective in these capacities while the antithyrogenic effects of the three vitamins are not additive. The dietary significance of these results promises important preventive as well as curative measures.

Department of ChemistryB.C.Coal and Shale

Dr. W. F. Seyer.

Investigations have shown that British Columbia has a great deal of coal that has a high volatile content and would thus make desirable sources of synthetic gasoline and other oils.

Superactive Charcoal

Dr. M. J. Marshall.

A new special rapid method for obtaining isotherms on activated charcoal was investigated.

Surface Reactions of Minerals in Flotation

Dr. W. Ure.

Work on this project was in abeyance on account of more urgent war problems.

Reduction of Native Ores

Dr. J. Allen Harris.

The new methods for the quantitative determination of tin developed and reported in 1942-43 were checked for accuracy and applied to the determination of tin in ores.

A study of the quantitative determination of tungsten was begun.

The use of benzidine and other organic reagents as possible means of separating gold and platinum quantitatively was studied, and encouraging results were obtained.

Glass Wool and Related Products

Dr. J. Gilbert Hooley.

Materials for furnaces operating at 1200°C and for ball milling equipment were purchased but arrived too late to make more than a beginning with the investigation.

Department of Geology and Geography.Strategic Metals

Dr. H. V. Warren.

It has been shown that valuable metals hard to find and to recognize by direct research have around them an aura which can be recognized by detailed spectroscopic analyses. The full import of this discovery can not yet be determined but it can be definitely stated that a new tool has been found to assist in the search for ore deposits.

Department of PhysicsApplication of Raman Effect to Problems in Oil Industry-

Dr. H. D. Smith

A new phase of the work undertaken during the year was a study of the magneto-optical rotation of various petroleum derivatives in the liquid state. In particular, an investigation was made of cis decahydronaphthalene of high purity in the liquid state. Indications were found showing a change in molecular

structure at 50°C which would explain the sudden transitions found by Dr. W. F. Seyer in the surface tension, viscosity and specific heat curves at that temperature.

Department of Zoology.

<u>Relation of Vitamins to the Nutrition of Trout</u>	Dr. W. A. Clemens Mr. J. Rattenbury.
<u>Clams and other Bivalves</u>	Dr. W. A. Clemens.

Work on these researches was continued and the results were recorded.

<u>Parasites and Diseases of Columbia Black-tailed Deer</u>	Dr. I. McTaggart Cowan.
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With the co-operation of the Provincial Game Commission, investigation into the cause of the periodic epidemics affecting deer upon many of the Gulf Islands was carried forward, particular study being given to Gambier and Hardy Islands. From the investigations it is apparent that a more widespread evaluation of the incidence of certain types of intestinal parasites could be obtained if suitable techniques could be perfected for the quantitative determination of parasite eggs and larvae in deer feces.

Professor Leonard Richardson (deceased).

The sudden death of Professor Leonard Richardson on October 23, 1943, proved a great loss to the University. He had been a member of the Department of Mathematics of McGill University College of Vancouver and continued on the staff when the University was formed. He was an outstanding mathematician and teacher. His keen knowledge of applied mathematics and his apt methods of demonstration made him a valuable member of the Department, particularly for work with Applied Science. He was greatly beloved by all his classes and likewise by all his colleagues. I wish to pay a personal tribute to his memory for in the twenty-three years of our association together, I always found him cordial and kindly.

Conclusion.

This report should not be concluded without at least a passing reference to the crowded condition in many classes and in most laboratories. Suffice it to say that at the time of writing (October, 1944) there seems to be a brighter hope of a more expansive future.

As in previous years I wish to thank all the members of the Faculty and staff for their cordial co-operation.

Respectfully submitted,

DANIEL BUCHANAN,
Dean,
Faculty of Arts and Science.

REPORT OF THE DEAN OF THE FACULTYOF APPLIED SCIENCE

The increase in registration in the Faculty of Applied Science during the past few years has created acute congestion in class rooms, laboratories, drafting rooms and mechanical shops. As in all post-war periods during the last century, the increase in the number of students of applied science will be accelerated in the years following the cessation of hostilities. There is at the close of every modern war an increased realization on the part of the citizenship of the important military services rendered by engineers and an increased tendency on the part of parents to encourage their sons to enter applied science classes. Thus apart from the large number of demobilized soldiers who will return to complete their training, there is reason to anticipate increases in the size of all applied science classes in the course of the next decade.

It is apparent to all who have seen the existing buildings that the increased demand for instruction can not be met without additional space and more instructors. A statement of our specific requirements was presented to the Board of Governors during the session. Because of war demands, it is increasingly difficult to obtain new equipment. This is especially true of electrical instruments. For example, a motor generator set ordered over a year ago has not been delivered to date. There is hope that it will arrive in the near future. It will help to keep pace with the increased size of classes in the Departments of Mechanical and Electrical Engineering.

There is a marked increase also in the size of classes in the Department of Civil Engineering. The fifth year drafting room was enlarged by removing a partition and equipping an adjacent lecture room with drafting tables. As it was impossible to procure the services of full time assistants, several fifth year students were employed for correcting problems and reading reports. An increased instructional burden was consequently placed on the regular staff members. In addition, they carried a heavy share of the instruction provided for the Army course. The field course in surveying during the month of May was taken in two successive periods in order to permit a certain portion of the class to attend military camp.

Some important changes were made in the courses in the Department of Mining and Metallurgy. A new course, Metallurgy 9, was added to the fifth year curriculum. This is a laboratory course in Physical Metallurgy following Metallurgy 1c given in the fourth year. A one-hour lecture period was taken from Mining 1 in the fourth year and added to Mining 3 in the fifth year. Mathematics 8 and Metallurgy 9, constituting a Physical Metallurgy option, were added to the fifth year in Metallurgical Engineering; Geology 9 and

Mining 3 being the alternative subjects forming a Chemical Metallurgy option. Metallurgy 1 is now divided into three sections, one of which, Metallurgy 1c (Physical Metallurgy), is available to students in both Metallurgical Engineering and Mechanical Engineering. These and other changes in the curriculum in the Department of Metallurgical Engineering indicate an increased emphasis on Manufacturer's Metallurgy as compared with Miner's and Smelter's Metallurgy, co-existent with the growth of the manufacturing industry in British Columbia.

Professor John E. Liersch, Head of the Department of Forestry, continued on leave with Aero Timber Products Limited. Assistant Professor Thomas G. Wright of the same Department enlisted in the United States Army and was given leave of absence as from October 1st, 1943. Mr. J. L. Alexander of the staff of the British Columbia Forest Service conducted the course in Timber Cruising in a satisfactory manner.

The graduating class in Forestry spent three days at the Forest Reserve at Pitt Lake immediately after the April examinations. A compass and hand level survey of the tote road route across Blaney Creek was completed and the data plotted. A reconnaissance survey was made of the "Point" on Loon Lake for the purpose of selecting a headquarters camp. One new sample plot was established in the Forest Reserve for the purpose of studying growth rates in that area. A set of air photographs of the area was obtained from the Photographic Centre, Ottawa. Also a map mosaic was constructed which will be valuable for studying timber types and topographical features. It is mounted in a frame behind glass and can be taken into the field for orientation and study purposes. A topographical map of a portion of the area was donated by James D. Lacey & Company, Seattle, Washington.

During the spring and summer of 1944 a good start was made in developing this Forest Reserve. An appropriation of \$2,000.00 was made by the Board of Governors for such development covering a three year period. Several hundred dollars have already been spent for labour in bucking windfalls and brushing out skid roads and old railroad grades. A cut-off trail in the vicinity of Blaney Lake was commenced. The opening up of trails will make the Reserve more accessible to University classes and also to the public for fishing and recreation.

Studies in thinning, pruning and planting were continued in parts of the University Forest as part of field and laboratory instruction. Block 44, comprising 2.65 acres, was selectively logged and replanted with about 2100 Douglas fir trees from the Department's Nursery. Nursery stock is inadequate notwithstanding a gift of stock from Green Timbers Forest Experiment Station. Great difficulty was experienced in obtaining seasonal labour for work in the University Forest. Consequently the volume and value of production for the current year are below normal, the net

proceeds from the sale of cord wood and fence posts for the fiscal year ending March 31, 1944, being about \$800.00.

Members of the Forestry instructional staff presented briefs to the Royal Commission on Forestry, which is making an exhaustive inquiry into the forestry resources of British Columbia. They assisted also in the preparation of a brief submitted to the Royal Commission by the Policy Committee of the Canadian Society of Forest Engineers.

Throughout the year numerous conferences were held between the members of the teaching staff of the Department of Nursing and Health and the agencies providing field work facilities, particularly the staffs of the Metropolitan Health Committee and the Provincial Board of Health. Very satisfactory field work was thus provided for all students taking the Public Health Nursing course. It is particularly regrettable that the temporary reduction in staff facing the Department during the coming year will entail a very much lessened degree of supervision of this type.

Facilities for observation and for participation in teaching and supervisory activities in schools of nursing were provided by the Vancouver General Hospital and to some extent by St. Paul's Hospital. The co-operation received from St. Paul's Hospital, which is not affiliated with the University, in permitting our students to attend their classes for periods of observation and practice teaching, is greatly appreciated.

Transfer of Miss Henderson's main interests from supervision of our students at the Vancouver General Hospital to field work supervision inevitably reduced the opportunities for contact with undergraduate nurses in the hospital. As far as time permitted, however, Miss Mallory has endeavoured to keep in touch with our students by means of personal interviews with the students and through conferences with Miss Palliser, Director of Nursing, and senior members of her staff, who proved at all times most co-operative.

At the beginning of the academic year Miss Mallory assumed full-time duties at the University as Associate Professor in the Department of Nursing and Health. It was anticipated that the Department might consequently look forward to a period of steady progress with fewer of the improvisations necessitated by staff changes in the preceding years. Unfortunately, circumstances arose during the year which make the short-term outlook less uneventfully progressive than had been hoped.

Miss Margaret Kerr, who had been with the Department for fifteen years, formerly as Instructor and latterly as Assistant Professor, resigned as from April 30, 1944, in order to take up an appointment as Editor and Business Manager of "The Canadian Nurse". Miss Kerr's energetic personality and splendid teaching gifts will be greatly missed.

A further serious loss was impending at the close of the academic year owing to Miss Henderson's acceptance of an appointment as a Supervisor in Public Health Nursing under the United Nations Relief and Rehabilitation Administration. In her capacity of Field Work Supervisor, Miss Henderson rendered outstanding service and the best wishes of her former associates follow her into her new field of endeavour.

Miss Kerr was replaced by Miss Pauline Capelle, R.N., B.A., B.A.Sc., formerly Acting Supervisor of Education and Supervisor of Nursing at the Division of Venereal Disease Control of the Provincial Board of Health, and every confidence is felt in her ability to play an important part in helping the Department over a period of serious shortages in staff.

Professor J. M. Turnbull, Head of the Department of Mining and Metallurgy since its inception, reached the age of retirement in July, 1944. He was appointed in 1915 and with characteristic energy undertook the task of organizing his Department. His success can be measured best by the excellent records that his graduates have attained in the practice of their profession. The cordial relations that have existed between his Department and the mining profession throughout the Province is a testimony to his ability and tact. It is a pleasure to announce that he has consented to continue at his post for the session 1944-45.

Respectfully submitted,

JOHN N. FINLAYSON,
Dean,
Faculty of Applied Science.

REPORT OF THE DEAN OF THE
FACULTY OF AGRICULTURE

The report which follows is compiled almost entirely from the extended departmental reports submitted to me by the Heads of Departments.

The main problem of the Faculty of Agriculture is one which is common to the whole University, that is, the overcrowding of lecture rooms in general and of laboratories in particular. All laboratories are accommodating at least double the number of students for which they were planned, and it is expected that numbers will increase still further, with the consequent confusion that results from congestion. In last year's report reference was made to the need for additional departmental buildings. These would be relatively small in area but are essential to the normal functioning of the Faculty. I refer in particular to the possible completion of the storage section of the Dairy Barn, the need for a Service Building in Poultry Husbandry, the completion of the Service Room on the North end of the Greenhouse, adequate facilities for Dairy Husbandry, and, if short courses are to be offered and visiting associations accommodated, the positive necessity for an Agricultural Pavilion.

Department of Agricultural Economics.

The Department of Agricultural Economics continued its general teaching work. Due to enlistments there have been no students of post graduate grade for the past two years.

A gift of \$2,000.00 from Safeway Stores Limited made possible the continuation of the Poultry Farm Survey. This is an economic study of the poultry industry. About one hundred poultrymen are co-operating. During the year a preliminary report was published, entitled "A Summary of Production and Returns of Thirty Poultry Farms in the Lower Mainland of the Fraser Valley 1943-44". This has been very favorably received.

The study "Economic Evolution in the Okanagan Valley" was continued for a short time during the summer.

Arrangements were completed during the spring with Dr. J. F. Booth, Associate Director of Marketing, Agricultural Economics, Dominion Department of Agriculture, Ottawa, for an economic farm survey in the Prince George area of central British Columbia. The purpose of this survey is to obtain some specific information with regard to farms, sizes of farms, farm incomes, and farm organization as a guide to prospective settlers in the new settlement areas. The Dominion Department is paying the salaries and expenses of four fieldmen who are interviewing farmers and collecting data. The fieldmen have obtained records on one hundred and sixty-five farms. It is expected that data will be compiled in the Department of Agricultural Economics this winter. Office accommodation and technical assistance are being provided.

The technical paper on "Price Floors" submitted to the B.C. Federation of Agriculture in January was favorably received and distributed by the Federation as a part of their educational programme to all Governments, Provincial and Dominion, all members of Legislatures and the House of Commons, and to most influential bodies throughout Canada.

Department of Agronomy.

The teaching work of the Department of Agronomy continued as usual

Alfalfa Investigations

During the year a special vote of \$3,000.00 was set aside for the alfalfa project from a gift of money to the University. The Board of Governors approved the general plan of operation for seed production in order to make seed available to farmers at an early date. Seed was harvested this year from the plots on the University farm, but, due to insects and adverse weather conditions, was lost on the farms of Mr. Lawrence Guichon, Quilchena, B.C., and the Fairbridge Farm School, Duncan, B.C. The research was continued on the detailed investigations at the University. A very close study was made of the F₄ parents selected three years ago and submitted to progeny tests. The progenies, both vegetative and seed, were studied in comparison with the parent type. Several valuable lines were found in this material - lines which could be used for immediate multiplication. Also, it was possible to establish about sixty strains suitable for further testing.

Elite and Foundation Seeds.

The following Elite and Foundation stock seeds were produced by the University in agreement with the Provincial Department of Agriculture:

	<u>Lbs.</u>
<u>Spring Grains</u>	
Victory Oats	3,786
Red Bobs Wheat	535
Eagle Oats	1,314
Prolific Rye	900
Olli Barley	752
Alaska Oats	354
Chancellor Peas	382
<u>Flax</u>	
Liral Dominion	165
Redwing	305
<u>Root Seed</u>	
Bangholm Swede	30

Lbs.

Fall Grains

Jones' Fife Wheat	755
Dawson's Golden Chaff Wheat	962
Kharkov Wheat	598
Ridit Wheat	588
Storm Rye	883

This seed is sold each year to the Department of Agriculture, which department in turn sells it to farmers for purposes of multiplication.

Potato Index Studies.

The eye index work with potatoes was continued during the year. The seed produced in this way, like the seed produced for the Department of Agriculture, is used for multiplication purposes and is the basis of an export industry.

Extension Activities.

During the year the professors in the Department were active on various committees and boards. Dr. G. G. Moe acted as Chairman of the B.C. Fertilizer and Agricultural Poisons Board, Member of the Agricultural Machinery Board, Representative of the Faculty on the Vancouver Local Employment Advisory Committee. Dr. D. G. Laird acted as Secretary of the B.C. Fertilizers and Agricultural Poisons Board, Secretary of the B.C. Fertilizer Committee, and Member of the B.C. Lime Committee. Dr. Vernon C. Brink co-operated with Mr. Tisdale of the Dominion Department of Agriculture on range projects.

Researches.

During the past year the research in Soils directed by Dr. Laird was that associated with problems undertaken by graduate students, aided in part by funds made available under the University grant designated as "Activators for Enzymes". Under this fund Mr. Campbell Gilmour did part of his thesis, involving a "Study of Hydrolysis of Casein by Actinomyces". Mr. E. J. Fennell continued his study on "Boron Control of British Columbia Soils".

Dr. Brink continued his studies on Range Problems, and, in co-operation with Mr. Lawrence Farstad of the Dominion Soil Survey and Mr. W. H. Mathews of the B.C. Department of Mines, pursued certain studies on "The Physiography and Climate of British Columbia". Under a grant received from the B.C. Industrial and Scientific Research Council, a study was initiated on "The Fertility of Fraser Valley Soils".

Dr. Moe continued his studies with alfalfa under the University grant. With the assistance of the B.C. Industrial and Scientific Research Council a small project was initiated in the study of female sterile alfalfa plants.

Department of Animal Husbandry

The teaching work of the Department of Animal Husbandry continued as usual during the year.

B. C. Industrial and Scientific Research Council.

Dr. J. C. Berry served throughout the year as a member of the Technical Advisory Committee on Agriculture of the B.C. Industrial and Scientific Research Council.

Dr. S. N. Wood, as a member of the Committee on the Mastitis Research Project, is in charge of the Animal Husbandry phases of this research.

Health of Animals Programme.

(a) Tuberculosis-free Herd (Cattle)

For some years the University herd has been accredited as T.B.-free under Certificate No. 7495 issued by the Health of Animals Branch, Dominion Department of Agriculture. During the year the herd was again tested by the Federal Inspectors and the certificate renewed stating that the herd is continuing free of the disease.

Bang's Disease, Control and Elimination by CalfhooD Vaccination.

Under the policy of Bang's disease control started on May 1st, 1940, we are maintaining infected animals in the herd and practising calfhooD vaccination on all animals born into the herd. Vaccination is practised in an endeavour to immunize against the disease the young cattle which will ultimately replace all of the older infected cattle within the herd.

Since May 1st, 1940, a total of sixty-five animals has been vaccinated against the disease, and of these forty-five were vaccinated as calves under eight months of age. Up to September 1st, 1944, twenty normal calvings and two abortions have occurred in this group. During the past year only one animal within the entire herd has aborted and this was one of the vaccinated heifers. This was an apparent case of breaking down of immunity by overwhelming invasion of organisms from a previous aborting animal in the same group.

At date of the last blood test there were thirty fully negative tested cattle in the herd and twenty-four head designated as infected. No test was applied to the bulls in the herd or to calves under four months of age. No animals have been disposed of from the herd because of Bang's infection, and the entire herd is being handled as one unit. This method of operation is providing a very severe test of the immunization value of the vaccination programme.

Laboratory Clinical Work and Diagnosis.

Diseased animals and post mortem cases submitted to the Laboratory were limited to a very few during the year. A few weanling swine and several lots of young chicks comprised most of the work.

Diseased tissues, blood specimens and fecal specimens sent in for diagnostic examination and bacterial study were somewhat more numerous than in the previous year.

A large number of letters of enquiry regarding diseases and requests for information on home treatment of sick animals were received and answered regularly throughout the year.

Pullorum Disease Work.

During the year the Laboratory for testing of blood specimens from poultry flocks throughout the Province operated one hundred and sixty-five days with a staff of six to eight technicians. During the period 443,927 blood specimens were received at the Laboratory for diagnostic tests and, in addition, 7,254 special tests were made out in the field in connection with the control programme. Including laboratory check testing, a grand total of 466,433 tests was made.

During the summer months, organization work to extend the field test work was carried on and nine men were given one week of training at the Laboratory to teach them the field work technique.

Vaccination Work in Control of Poultry Diseases.

This work, previously conducted for the Provincial Department of Agriculture as investigational and test work, has since the beginning of 1944 been assigned to the Animal Diseases Laboratory to be administered, and the use of vaccines has been authorized by the Department of Agriculture in the control of the two diseases, namely, "Fowl Pox" and "Infectious Laryngotracheitis". During the year approximately 16,000 birds were vaccinated on poultry farms and in all cases with good results.

Research Projects.

(a) An investigational study of calfhood vaccination is being continued upon the college herd of cattle.

(b) A Mastitis research project, under the auspices of the B.C. Industrial and Scientific Research Council, was organized and set up to study Mastitic diseases of dairy cows within the Province. Investigational and laboratory work on the project is divided jointly between the Department of Dairying and the Department of Animal Husbandry,

(c) The investigation of problems associated with meat quality was continued in the Session 1943-44. Experimental material consisted of nine yearling steers which were predominantly of Hereford breeding.

(d) Due to disease troubles associated with the movement of feeder lambs to feed lot premises, it was considered undesirable to bring a group of feeder lambs to the University Farm. Instead, through the good auspices of one of our senior students, a representative group of high quality breeding stock was made available from the Reifel Farms on Westham Island. Lambs, ewes and rams of the Hampshire, Suffolk and Romney breeds, along with a Cheviot ram, were brought to the University and maintained in the Sheep Barn during the spring of 1944. This unit was used for instructional purposes and then returned to the Reifel Farms.

Correspondence Courses with the Armed Services.

During the year Dr. Berry continued his work as Instructor in the Correspondence Course "Live Stock and Dairy Farming" for Armed Services personnel under the direction of the Canadian Legion Educational Services. In addition to conducting this course, he completed revisions of the four text booklets used for the course. During the year this work involved the consideration and correction of about one hundred papers each month.

Breed Association Work.

Dr. Berry's duties in connection with the Breed Associations during the year were as follows:

Secretary-Treasurer of the B.C. Branch of the
Holstein-Friesian Association of Canada,

Director of the B.C. Ayrshire Breeders' Association,

Member of the newly organized Joint Dairy Breeds
Association of British Columbia.

Dominion-Provincial Emergency Farm Labour Service

During the summer months of 1943 and 1944 Dr. Berry was loaned from the University to act as Area Supervisor for the Fraser Valley District under the direction of the Director of the Dominion-Provincial Emergency Farm Labour Service. His work consisted mainly of co-ordinating the work of the local War Agricultural Production Committees and of supervising the work of Placement Officers in his area.

Changes in Farm Area and Loss of Land.

The lack of more farm producing acres is a serious handicap to the work of the Department. It is hoped that the part of the farm area taken over temporarily by the Department of Agronomy will soon be returned and included in the farm unit.

Upkeep of Buildings.

Some major repairs to the farm buildings were made possible during the year. Chief among these was the putting of a cement wall and foundation under the beef barn, replacing decayed sills and posts and laying of a new floor of cement. The super-

structure of this building is in good repair, and it should now serve satisfactorily for the beef cattle feeding projects for many years.

Provincial Feed Standards Board.

Few meetings of the Board were held during the year as no new publications were contemplated. The bulletin of the Board, "The Feeding of Farm Livestock in British Columbia", is in strong demand and there is a considerable correspondence relative to its recommendations. The Board has, during the year, been of considerable assistance to authorities at Ottawa in matters dealing with regulations of the food trade. Professor King continued as Chairman of the Board and Dr. Berry as Editor.

Dairy Cattle Classification Work.

Classification work with high quality, purebred dairy cattle has grown rapidly during the past few years. Professor King continued his work as official classifier for the four Western Provinces for both the Canadian Jersey Cattle Club and the Canadian Ayrshire Breeders Association. The bulk of the work so far done in Western Canada has been for the Jersey Club. The University herd of Ayrshires was classified in the early summer of 1943, and the first reclassification is planned for 1945.

Department of Dairying.

The teaching work of the Department of Dairying continued as usual.

Laboratory Accommodation.

The adequate provision of laboratory accommodation continues to be the major problem of the Department.

In order to provide for the students taking Dairying 4 it was again necessary to divide the class into sections, thus limiting the availability of the Dairy Laboratory for students who ordinarily use this laboratory for thesis work and for Assistants engaged in the preparation of laboratory media for class room use. At present these students are under a serious handicap as the periods available to them for work on their thesis problems or in the preparation of class room material often coincide with those during which the laboratory is being used for other purposes. Additional space in the form of small laboratories for senior and graduate students carrying on thesis work is the only solution of the problem.

The educational facilities of the Department for the training of students in the practical and technological sides of the Dairy Industry continue to be limited through lack of adequate plant, equipment and staff. With the facilities available, courses in Butter-making and Cheese-making were given throughout the year in the Dairy.

The provision of adequate instructional facilities in the Department envisages changes in the nature of the present laboratory work in both Butter-making and Cheese-making and the giving of courses covering the fields of (a) Market Milk and Related Products, (b) Ice Cream, (c) Condensed Milk Products, and (d) Powdered Milk. It is also hoped that a course in Agricultural Engineering which will include the fundamentals of Dairy Engineering will again be offered as a course in Applied Science available to students in Dairying.

Research Projects.

Work was continued on the problems associated with cheese-making, particularly with regard to the difficulties encountered in the North Okanagan Valley. The Department continues to enjoy the active co-operation of the Industry and has been able to render considerable assistance which has resulted in a marked improvement in the quality of the cheese produced in that area.

Under the University "Cheese-Ripening Research" grant, Miss Florence Tamboline was again able to carry on work at the factory in Armstrong during the past summer. Her work was of direct benefit to the Industry and was greatly appreciated by the Directors of the Armstrong Cheese Co-operative Association. Although Miss Tamboline carried out work on several problems during her stay in Armstrong, particular attention was given this year to the problem of "Mastitis and its Relationship to Cheese-making." It is of interest to record that this work constitutes the beginning of a co-ordinated attack on the problem of Mastitis throughout the Province. Miss Tamboline has been appointed Bacteriologist to carry out work under the recently established Committee on Mastitis of the B. C. Industrial and Scientific Research Council.

Further progress was made in studies on "Surface Taint in Butter". The findings continue to be applied to Industry with beneficial results. The work that has been done under this grant made possible during the last year the prompt recognition of the source of the causative organism in two outbreaks of the defect within the Province. Immediate application of control measures resulted in the prevention of further occurrence of the defect in both creameries encountering the difficulty.

In the work on "Cheese-Ripening" and "Surface Taint in Butter" the Department continued to enjoy the active co-operation of the Provincial and Dominion Departments of Agriculture.

As no student with adequate training and experience was available to proceed with studies under the "Activators for Enzymes Research" grant, little work on this problem was carried out during the past year.

As a major project under the recently formed B.C. Industrial and Scientific Research Council the Department is providing to the best of its ability accommodation for the laboratory work on the problem. Miss Tamboline has been appointed to the post of

Bacteriologist under the Research Council grant. The study is under the general supervision and direction of Dr. J. G. Jervis, Chairman of the Committee on Mastitis appointed under the Technical Advisory Committee on Agriculture of the Research Council. It is the responsibility of Dr. Blythe A. Eagles to undertake supervision of all laboratory work connected with the research.

Supplies and Equipment.

The Department was able to hold its position insofar as general supplies and equipment were concerned. The provision of adequate equipment for courses in the different fields of Dairy Technology is, however, a problem which awaits solution.

Travel.

During the past year Dr. Eagles attended the first meeting of the Interior Dairymen's Association held in Salmon Arm, in April. This meeting took the form of a "Dairy School" and Dr. Eagles presented a paper on "Sanitation in the Dairy Industry".

Department of Horticulture.

The teaching work of the Department of Horticulture continued as usual.

Laboratories

I would like to draw specific attention to the necessity for the expansion of the Plant Nutrition Laboratory and all other laboratory facilities of the Department. The student registration has outgrown the accommodation by about three to one.

Changes in Policy.

During the year there were no important changes in the policy of the Department of Horticulture. The major emphasis was, as in previous years, given to the teaching of students and to such investigational work as could be conducted largely as a phase of teaching, save for five projects (non-teaching) which are here indicated by title only. Incidentally, these proved to be of definite value in providing certain materials which could be used in teaching as well as providing some practical experience for such students as have been given part-time employment during the progress of the work. The five projects carried forward during the year are:

Vegetable Seed Trials (in co-operation with the Dominion Government). Eighth Year.

Foundation Stocks of certain vegetable varieties (under an arrangement with the Canadian Seed Growers' Association.)

"Causes of Raspberry Failure" project (under a grant from the Board of Governors, this University).

"Vegetable Food Research" project (under a grant from Safeway Stores Limited).

"Food Values of British Columbia Fruits and Vegetables and Factors which Affect Them" (under a grant from the B.C. Industrial and Scientific Research Council).

Details of these researches are contained in the departmental reports.

Horticulture Grounds, Greenhouses, etc.

For a number of years the Horticultural Area (including the buildings and greenhouses) has been under lease to Mr. Frank Garnish, formerly Foreman in Horticulture, who is completing his twenty-eighth year with the University. The terms and spirit of the lease were carried out fairly well during the past year, although the arrangement is far from satisfactory in many ways and adjustments from the original undertaking have had to be made from time to time.

During the past year Mr. Garnish was so seriously ill that he was practically incapacitated from all work for a considerable time. The Department gave what help it could to carry over the crisis, including the provision of fuel for the Greenhouse. \$300.00 was voted for this purpose.

Included in the Horticultural Area were certain fairly large blocks of land which had of necessity been abandoned or been allowed to become badly run down. A special grant from unexpended balances was made available to the Department for draining (with agricultural tile) and clearing some of these neglected areas and bringing them into such shape that they could be used for crop production.

Research Projects.

The details of the research work carried on by the Department are shown in reports submitted by Dr. G. Howell Harris to accompany the departmental report. The projects so reported upon include Senior and Graduate student problems, the "Raspberry Decline" studies (instituted in 1937 under a grant provided by the Board of Governors), the "Safeway Vegetable Food Research" project, involving a study of food values in certain vegetable crops on various soils and under different fertilizer treatments (instituted in 1941), and a "Food Values" study under a grant from the B.C. Industrial and Scientific Research Council (instituted in 1944).

Vegetable Seed Trials.

For the eighth consecutive year the Department of Horticulture conducted a series of vegetable seed trials. This work was commenced in 1937 as a co-operative project between the Plant Products Division, Production Service of the Dominion Department of Agriculture and The University of British Columbia. In this year's trials there were some three hundred and forty-two samples of seed on test. The labour costs were cared for by a special grant from

the Dominion Department of Agriculture (\$600.00) supplemented by contributions of \$325.00 from other sources as follows:

British Columbia Seed Growers' Association	\$125.00
Provincial Department of Agriculture	125.00
Wm. Rennie Seeds Limited (Vancouver)	25.00
The Brackman-Ker Milling Co. (New Westminster)	50.00
	<u>\$325.00</u>

This vegetable seed testing work is proving of distinct value as a contribution toward the national effort, and should be even more worthwhile with the greatly increased call for Canadian-grown seeds. The testing plots furnish considerable class teaching material which would otherwise have to be provided as a definite charge against the Department's budget.

Service Work, Correspondence, etc.

Soil and plant tissue tests were made extensively to diagnose plant nutritional troubles where a grower's problem was involved. These included troubles in the field, greenhouse, etc., as well as problems in mushroom growing.

Technical Boards, Committees, etc.

During the year Dr. A. F. Barss continued as a member of the Provincial Vegetable Seed Committee, serving as Vice-Chairman. In June of this year he attended a three-day session at Saskatoon as a member of the Horticultural Plant Breeders' Committee of the Canadian Seed Growers' Association.

Dr. Harris served as Chairman of the Technical Advisory Committee on Agriculture for the B.C. Industrial and Scientific Research Council.

The members of the staff in Horticulture served during the year on the following committees:

- Canadian Legion, West Pt. Grey Branch (President)
- University Representative on Committee on Educational Policies, Canadian Legion
- Educational Representative of the Canadian Legion to the Vancouver Co-ordinating Council War Services.
- Canadian Society of Technical Agriculturists (Vice-President, Lower Mainland Local)
- Post-War Housing Committee of City Council
- Committee on "Blighted Areas" (Chairman)
- Rehabilitation Committee of Greater Vancouver, also member of two of its Standing Committees "Education" and "Housing"
- Member of the Vancouver Town Planning Commission and member of four of its Standing Committees
- Member of the Committee preparing and presenting the draft of the "Provincial Planning Act" before the B.C. Government.

Department of Poultry Husbandry.

The teaching work of the Department of Poultry Husbandry continued as usual.

Staff.

The further promotion of Professor Biely from the rank of Assistant Professor to that of Associate Professor has been a matter of considerable satisfaction to all concerned.

The Poultry Plant.

Distinct improvements have been made to the Poultry Plant. The grass and clover have been established as pasture. Old fences were removed and a permanent outside fence erected. The fence is an important protection against wild dogs. New hurdles are being constructed, and it is now possible to rotate the poultry runs and pastures. The buildings were painted during the year.

Poultry Stock.

(a) Disease.

If any confirmation of the seriousness of the disease problem were needed it is provided by data secured from the preliminary report of the University Poultry Farm Survey conducted by Mr. E. Woodward under the direction of the Head of the Department of Agricultural Economics. This Survey has shown that the laying house mortality is 24.3% per annum in flocks in this Province and varies from around 10% in some flocks to as high as 70% in others.

Information regarding losses in young stock is not available, but it is known that losses from one disease alone, i.e., the paralysis complex, have been disastrous in some flocks and a drain on the supply of potential laying pullets in many.

In attacking the problem of disease control in the U.B.C. flock, so far as facilities will permit, approaches are being made both from the environmental aspect and from the breeding approach. Accordingly, efforts have been made to improve conditions through the critical and susceptible early periods of rearing on the range.

(b) R.O.P. Breeding.

The regular R.O.P. entry of one hundred pullets each in the Barred Plymouth Rock and Rhode Island Red breeds was maintained with an increase of from one hundred to two hundred pullets in the case of the Single Comb White Leghorns for testing with the trapnests. Such an increase in the latter breed was considered desirable in order to permit of more extensive testing from larger families as a basis for discovery of resistant lines, - the Leghorns having shown a serious increase in mortality with corresponding lowered production. With the higher production obtained this year and lower mortality existing, the very substantial improvement in the record of production will leave a

considerably increased number of certified R.O.P. Leghorn hens for the R.O.P. Approved breeding pens the next breeding year. While the same result applies to the Barred Plymouth Rocks and the Rhode Island Reds to a corresponding degree, it may be necessary to increase these R.O.P. units to two hundred pullets each to secure material for selection and mating.

Research Projects

Early Feathering

Material progress has been made in the selection of stock for "early feathering" (maturity). The following is quoted from Professor E. A. Lloyd's departmental report: "Since breeding and selection for fast early feathering in the Rhode Island Reds have been confined within the R.O.P. strains of this breed, progress has been less rapid than it would have been if the fast feathering gene had been introduced through crossing with another breed like the fast feathering New Hampshires.

"It is a rather remarkable coincidence that simultaneously, and by good fortune, several fast early feathering chicks, both male and female, have appeared this season for the first time in the R.O.P. Barred Plymouth Rocks of the U.B.C. strain. Its genetic origin is being studied. This material should prove valuable for breeding next year and should save years in developing this new early full feathered strain of Barred Plymouth Rocks. By the use of the two unrelated strains, the one from the outside, and untested, and the tested U.B.C. strain, it should be possible to go ahead with the project without fear of loss of vigor through too close inbreeding."

Autosexing Breeds.

The Gold Cambar, which has been improved at The University of British Columbia in preparation for entrance into the American Standard, is now ready for commercial use.

As an early feathering, white-fleshed breed it has proved itself superior in meat qualities to all other breeds of medium size, excepting possibly the Games, which in turn are not good layers. This strain of Cambar has been improved in egg production until it lays almost as well as the best commercial breeds. The egg size is now good. Colour pattern for autosexing, i.e., the pullet chicks with their brown, spotty heads and striped backs as distinguished from the cockerel chicks with their light, blotchy, down colour free from stripping, has been standardized to a considerable degree. Autosexing is now about 90% accurate in this variety.

Poultry Nutrition.

It is gratifying to report that during the academic year 1943-44 the Department has acquired a substantial building to carry out nutritional studies with laying birds. Funds for the construction of the Building were provided by the Provincial

Government at Victoria on the recommendation of the Hon. Dr. K. C. MacDonald, Minister of Agriculture, and additional grants from the Surrey Co-operative Association, Cloverdale, B.C., and Western Chemical Industries Limited, Vancouver, B.C.

a) Poultry Feeding Project.

At the present time the building is used for feeding tests for the purpose of comparing rations which contain yellow corn and those which do not. Comparisons are also made with rations which contain wheat as the sole source of grain and those which contain several grains and grain by-products.

The experimental work was commenced on March 16th, 1944, with five hundred Single Comb White Leghorn pullet chicks, and will be continued for a period of eighteen months. Data are being gathered on rate of growth, feed consumption, egg production, size and quality of eggs, and mortality (percentage and cause).

The above project has been made possible by grants from the Surrey Co-operative Association and the Provincial Department of Agriculture.

Woodward's Feeding Project.

At the request of Dr. E. E. Rogers, M.D., C.M., a practising physician of Vancouver, and Mr. I. Lipovsky, Woodward Stores Ltd., a feeding project with chicks was undertaken in the summer of 1943, the main purpose of which was to determine the effects of two different systems of feeding on rate of growth, livability, egg production and causes of mortality. The two systems differed as follows:

- (i) Chemical and biological composition of the rations,
- { ii) Daily supply of fresh green feed,
- { iii) "Ad lib" vs. restricted feeding.

The test was carried out for a period of one year (June 11th, 1943 to June 10th, 1944) with two groups of approximately one hundred and twenty-five Single Comb White Leghorn pullets. No significant differences were observed.

A grant of \$500.00 was made by Woodward Stores Limited to finance this work.

The Nutritive Value of Meat Meals and Fish Meals for Growing Chicks.

The project on the nutritive value of meat meals and fish meals for growing chicks was started by Mr. Cameron Inkster, B.S.A., in the summer of 1944, for credit towards a Master's Degree. In this project an attempt was made to determine the protein quality of various brands of meat meals and fish meals prepared from several of the more common species of fish.

In the preliminary study, five brands of meat meal and four kinds of fish meal and a combination of fish and soyabean meal were tested with Rhode Island Red Chicks of both sexes. This test was set up in duplicate and carried out for a period of eight weeks. Details of results are to be found in the departmental report.

(d) Vitamin B Research

A series of feeding tests with chicks kept for four to eight weeks on various vitamin supplements was carried out during the year 1943-44. The rations were standardized as regards the various nutrients and individual vitamins. The main purpose of these tests was to find the most suitable combination of protein and vitamin supplements that would need to be added to wheat to make it a complete feed for growing chickens.

Five series of experiments were carried out between September 1st, 1943, and the early summer of 1944. The details of results are to be found in the departmental report.

(e) Fish Oil Research

Eight series of Vitamin D biological assays with chicks were carried out between September 21st, 1943, and the early summer of 1944. Approximately four thousand five hundred White Leghorn chicks were used in the various assays.

The most important phases of the research were concerned with:

- (i) the deterioration by ageing of natural and synthetic Vitamin D,
- (ii) aqueous solutions of crystalline D₃,
- (iii) relative effectiveness of free and ester forms of Vitamin D,
- (iv) administration of Vitamin D with pipette for orem.

Table III in the departmental report, for example, shows the results on one biological assay in which thirty-three different formulae for Vitamin D solutions in water were used. These solutions were prepared by Dr. Wm. Chalmers of Western Chemical Industries Limited. Dr. Chalmer's comments in connection with this phase of research are worthy of record: "In the last series of tests highly successful results were obtained in which clear water solutions of Vitamin D were added to the basal ration and fed to baby chicks for three weeks. The results were possibly superior to those obtained from the oil fed in the mash." It may be of interest to know that the exploration of the possibilities of aqueous solutions of Vitamin D, as well as Vitamin A, is unique in the field of research on fat soluble vitamins.

In connection with this project it is a pleasure to acknowledge the inspiring leadership and co-operation of Dr. Wm. Chalmers of Western Chemical Industries Limited. The chemical

aspects of the problem, including many highly technical procedures, were carried out by Dr. Chalmers himself or by the staff under his personal supervision.

Poultry Mortality Survey.

At the request of the B.C. Industrial and Scientific Research Council a survey of adult poultry mortality is being made by the Department.

Service Work.

The usual number of birds (about 400) were brought or sent in for diagnosis of disease.

The outstanding need of the Department is a service building on the Poultry Plant. This Department has always had to operate with more or less makeshift facilities at the Plant.

Respectfully submitted,

F. M. CLEMENT,

Dean,
Faculty of Agriculture.

REPORT OF THE DEAN OF WOMEN

47.

Another wartime session, 1943-44, saw the Dean of Women's Office much preoccupied with the Women's War Work Plan. This year marked the establishment of a University Unit of the Canadian Red Cross Corps on the British Columbia campus. Dr. Joyce Hallamore as Commandant and Dr. Sylvia Thrupp as Assistant Commandant took charge of the Corps, which enrolled fifty members for the session. The smart grey uniforms, with ties of the University blue and the Red Cross insignia on hat and sleeve, soon became a familiar sight on the campus. Through the courtesy of Colonel Shrum, the girls were allowed to drill in the University Armouries. When photographs were taken of the "Campus at War", the girls marched with other units and they also paraded at the end of the year when Dr. Klinck took the salute. On the evening of March 29th, Mrs. de Satge of the Vancouver Detachment officially inspected the unit in the Armouries and declared herself very pleased with their progress. Details connected with the organization of the Corps added to the duties of the Dean of Women's Office. The Women's War Work Plan as a whole centres in that Office and as the programme is now quite extensive the various aspects of the plan exact considerable time. It is a satisfaction that the women students continue to support it very loyally. To the classes given in previous years, a short typing course was added during the session 1943-44 by special arrangement with a city training school. Most of the students, however, still continued to give their time to sewing and knitting for the University Unit of the Red Cross Society. This year Dr. Blakey Smith shared the responsibility for this part of the work with Mrs. J. F. Muir. As usual, all the women on the Faculty were generous in offering their assistance. Outstanding was the work of Miss Margaret Kerr, under whose training one hundred and forty-four students were successful in passing the First Aid examination for the St. John Ambulance Association.

The closing of the Brock Dining Room during the session, added to the already existing problem of food rationing, made it very difficult for the Dean of Women to offer hospitality to students during the year. The informal social groups of previous years had definite value in establishing friendly relations and some arrangement of that sort appears to be a necessity.

The housing problem for the session 1943-44 promised to be very grave. Sufficient accommodation was offered only after the University had advertised the seriousness of the situation. With the co-operation of the Dominion Housing Bureau, enough rooms were finally found, but these were scattered all over the city and, in spite of precautions, some proved unsatisfactory after term started. The housing problem, therefore, remained acute and demanded considerable attention all year.

Respectfully submitted

M. DOROTHY MAWDSLEY,
Dean of Women.

REPORT OF THE LIBRARIAN TO THE LIBRARY
COMMITTEE OF SENATE

(SUMMARY)

The outstanding event of the year was the acquisition of the historical collection bequeathed to the Library by Judge F. W. Howay, of New Westminster. This consists of about 2200 bound volumes, and about a thousand pamphlets. The bulk of the books relate to western Canada and the northwest coast of America. In addition to the standard voyages and travels, Judge Howay made a point of collecting the supplementary material that frequently adds so much to the official publications, and his library is therefore unusually useful to the research student. The collection includes practically everything in print relating to the maritime fur trade, upon which Judge Howay was the authority, and a wealth of material relating to the colonial period in British Columbia. Included also were several very valuable newspaper files, one of these being the only extant complete run of the New Westminster British Columbian for the years 1861-69.

A total of 5,245 volumes were accessioned during the year, and the Library's total book-stock is not far short of 150,000.

As in most university libraries, circulation decreased appreciably as compared with the previous year. Various factors account for this. The average student is much better off financially than a few years ago, and purchases some of the books he would otherwise have borrowed. Military drill and women's war work occupy hours that would otherwise be spent in study. The open-shelf reserve-book system, introduced two sessions ago, improves service greatly but substantially reduces the number of book-loans actually recorded. The probability would seem to be that the downward trend of circulation has now reached its limit, and next year's statistics may be expected to show an increase.

The average student may be reading less, but, if anything, the good student is reading more, and the Reference Department had the busiest season it has ever had.

Considerable attention was given to displays during the year, and much interest was created amongst the students. Items shown included superb specimens of porcelain, stoneware, glass, pewter, silver, and pottery from the collections of Dr. L. S. Klinck.

Crowding, both in the reading rooms and in the stackroom, is more serious than ever. Preliminary sketches for an addition to the Library have been drawn, but at best several years must still elapse before a wing can be completed.

Respectfully submitted,

W. KAYE LAMB,

Librarian

REPORT OF THE DIRECTOR OF THE
SUMMER SESSION

The twenty-fifth Summer Session of the University operated from June 26th to August 11th, 1944.

The enrolment was as follows:

		<u>1943</u>	<u>1942</u>
Partial	15	5	3
First Year	53	37	35
Second Year	145	96	95
Third Year	59	61	46
Fourth Year	64	77	65
Graduates	105	53	76
Auditors	8	7	2
	<u>449</u>	<u>336</u>	<u>322</u>

Courses in Social Work enrolled twenty-nine students.

The following summary compares the offering with that of previous years:

		<u>1943</u>	<u>1942</u>
Full courses (3 units)	19	16	24
Half courses (1 1/2 units)	4	4	6

A very acceptable group of visiting instructors joined the staff. Queen's University and the Universities of Toronto, Saskatchewan, California and Washington were represented.

The attractiveness of the University's Summer Session was enhanced by a number of noon-hour events. The Summer Session, the Department of University Extension, and the Summer Session Students' Association co-operated to offer two courses in music appreciation. Three other recitals were also presented.

The total enrolment at the Summer Session naturally fluctuates a good deal from year to year. In each of 1937, 1938, and 1939 the enrolment exceeded 650. Each of 1940, 1941, and 1942

saw a decrease of about 125 students from the year before, the enrolment in 1942 being 322. The enrolment in 1943 was 336. This year shows an increase of over 100. There is every reason to expect that possible fee adjustments and the end of the war will combine to produce further substantial increases in the years immediately ahead.

Respectfully submitted,

M. A. CAMERON,

Director, Summer Session.

REPORT OF THE CHAIRMAN OF THE JOINT FACULTY

COMMITTEE ON PRIZES, SCHOLARSHIPS AND BURSARIES.

In recent years the duties of the Joint Faculty Committee on Prizes, Scholarships and Bursaries have steadily increased. Although the year under review was no exception, it is a pleasure to report that most of the additional work involved was occasioned by an exceptionally large number of donations of new prizes, scholarships and bursaries.

During the academic year 1943-44 the University was able to add to its list of awards one fellowship (the first to be established here), 8 scholarships, 10 bursaries, and 8 prizes, amounting altogether to \$6,650.00 for the year. Of these awards, all but two of the bursaries and four of the prizes are now offered annually.

The following is a brief description of each of these gifts, the full details of which either have been or will be announced in the University Calendar:

Fellowship.

The Consolidated Mining and Smelting Company of Canada Limited Fellowship, open to graduates for research related to non-ferrous metals, fertilizers, and chemicals. An annual award of \$750.00 with an additional \$450.00 available for special equipment and supplies.	\$1,200.00
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Scholarships

The British Columbia Electric Railway Company Limited Research Scholarship, open to graduates in Electrical or Mechanical Engineering. An annual award of \$500.00 with an additional \$100.00 available for special equipment.	600.00
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The British Columbia Electric Railway Company Limited Scholarship for undergraduates in Electrical Engineering. An annual award.	200.00
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The British Columbia Electric Railway Company Limited Scholarship for undergraduates in Mechanical Engineering. An annual award.	200.00
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The Powell River Company Limited Scholarship, open to graduates for research in wood chemistry. An annual award.	700.00
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The R. Randolph Bruce Scholarship for undergraduates in the Metallurgical Engineering Course. An annual award.	200.00
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Scholarships (continued)

The Vancouver Women's Canadian Club Scholarship for undergraduates in Home Economics. An annual award. \$ 100.00

The Vancouver Sun Scholarships. Two Scholarships, each of \$200.00, for Vancouver Sun Carriers entering First Year. Annual awards. 400.00

Bursaries.

The Alberta Meat Company Bursary, open to students in Animal Husbandry. An annual award. 50.00

The Co-operative Seed Growers Bursary, open to undergraduates in Agriculture. An annual award. 100.00

The Mary C. Lipsett Bursary, open to undergraduates in Sociology or Psychology. An annual award. 200.00

The J. M. Taylor Bursary for undergraduates in Metallurgy. Awarded in the session 1943-44 only. 150.00

The Rotary Memorial Bursaries. Five bursaries of \$200.00 each, open to undergraduates. Annual awards. 1,000.00

Bursary (anonymous donor) awarded to an undergraduate in equal instalments over successive years of his undergraduate course. 1,000.00

Prizes.

The William and Dorothy Dorbils Prize in Zoology, open to undergraduates. An annual award. 50.00

The Timber Preservers Limited Prizes for undergraduates in Civil Engineering. Three prizes of \$60.00, \$25.00, and \$15.00 respectively. Annual awards. 100.00

The Canadian Army Course No. 2 Prizes (Anonymous donor), Four prizes of \$100.00 each. Awarded in the session 1943-44 only. 400.00

At the request of the donors the Lady Laurier Club Bursary was increased from \$50.00 to \$75.00, and the Ahepa Scholarship was re-classified as a prize. One award, the Players' Club Prize, was withdrawn.

As in the past, there were many requests by students for financial assistance. As far as possible these requests were met by means of the Dominion-Provincial Youth Training Bursaries, the Special Bursaries of the University and the various "named" bursaries awarded in September and May. The Committee examined over 300 applications, interviewed at least half that number of applicants, and recommended 200 students for 222 awards. It

is interesting to note that almost 60 different centres of the Province are represented in the home addresses of the recipients, and that approximately 60 per cent. of the total sum awarded in bursaries was distributed to students residing outside the City of Vancouver.

The financial assistance provided by the bursary funds is presented in the following table:

<u>Name of Bursary</u>	<u>Number of Awards</u>	<u>Total Amount Awarded</u>
Dominion-Provincial		
Section 1	34	\$3,910.00
Section 11(a)	81	12,910.00
Section 11(b)	11	1,800.00
Section 111	2	250.00
Special Bursaries	67	6,170.00
Named Bursaries	<u>27</u>	<u>3,097.50</u>
<u>Totals</u>	<u>222</u>	<u>\$28,137.50</u>

Although prizes and scholarships are awarded on the basis of scholastic standing or skill, it is undoubtedly true that on many occasions they also provide financial assistance for needy students. It is not without point, therefore, to note that every year about 21 students are awarded University and Royal Institution Scholarships for proficiency in the University Entrance and Senior Matriculation Examinations; and also to record that, during 1943-44, the Committee recommended prize and scholarship awards to some 50 other students to a value exceeding \$8,000.00.

At its own request, the Committee was enlarged to include the Dean of Women as an ex officio member. This change has greatly increased the efficiency of the Committee, particularly in matters concerning financial aid to women students.

In considering applications for assistance under the Dominion-Provincial Youth Training Programme the Committee, as in the past, acted in consultation with Colonel F. T. Fairey, Director of Technical Education. The Committee is deeply grateful to Colonel Fairey for his co-operation, advice and assistance.

The Chairman wishes to express his appreciation of the splendid work of the members of the Committee and, on their behalf, to thank the President, the Governing Bodies, the Faculties, and the staffs of the Administrative Offices for their guidance and help.

Respectfully submitted,

WALTER H. GAGE,

Chairman, Joint Faculty Committee on
Prizes, Scholarships and Bursaries.

UNIVERSITY EXTENSIONGeneral.

In reviewing the work of the Department of University Extension for the 1943-44 academic session two features seem especially worthy of note. One is the continued increase in the number of persons registering for the various services offered by the Department, and the other is the increase in the number of projects undertaken jointly with other groups and organizations engaged in adult education work. The increase in the number of requests for assistance indicates a growth in the need and appreciation of adult education and a confidence in the University's ability to meet that need. The sponsoring and planning of short courses and study programmes for organizations has given the Department an opportunity to introduce a measure of coordination in a field where it is greatly needed.

In 1936 when the Department of University Extension was established, adult education was in its infancy. It is true that at that time certain universities already had well established extension departments but these were mainly engaged in correspondence work for university credit. The University of British Columbia, partly because of the limited funds available for the establishment of a new department, but more especially because of its realization of an educational need, decided to align itself with the new trend in adult education which advocated a more general cultural and vocational training for the average adult. The great increase in adult education in British Columbia since 1936 has shown the wisdom of this choice. If the Department is to meet its constantly increasing obligations it is imperative that additional staff be provided. Only the Extension Library and the Drama Division have at present a trained full-time assistant. Other assistants are required for the fields of Agriculture, Home Economics, Handicrafts, Visual Education and Music.

Study Group Programme.

One hundred and ninety-two groups in British Columbia registered for study courses in 1943-44, which is a marked increase over the total for the previous year. Greatest interest was shown in the courses on child psychology, public speaking, acting, and credit unions.

One of the most interesting developments was the use made of the Department's courses by other universities throughout Canada. Macdonald College used six of the study group courses during the year; the University of Alberta, three; the University of Saskatchewan, three; and the University of Manitoba, one. In addition, many individuals, some as far away as the Maritimes, sent in requests for the study outlines.

During the summer, work was started on a new course- 22.
"Marriage and Family Relations" - which is to be a study outline
compiled by a number of authorities in the various social fields.
The Department has now a total of fourteen specially prepared study
outlines for distribution.

Evening Classes and Extension Lectures.

Increased interest in adult education was indicated again
this year by the variety of the requests for evening classes and
the large registration at the courses offered.

The following list gives the courses and the registration:

Canadian Problems in the Post-War World	80
Music Appreciation	121
The Practice of Speaking in Public	60
New Homes for Old	52
Current Social and Political Ideals	110
Gardening in Wartime	75
General Botany	26
Feeding Ourselves in Wartime	20
Child Psychology for Parents	53
Poultry Husbandry	135
Metals	<u>142</u>

Total registrations

Members of Faculty again offered their services to
organizations and groups in Vancouver and in centres throughout the
Province for public lectures. During the year 278 lectures were
given, with a total recorded attendance of 26,388.

The Victoria University Extension Association carried on
its usual winter series of lectures given by Faculty members of the
University. For several years the Association has rendered a
valuable service as an effective link between the University and the
City of Victoria.

Library and Pamphlet Service.

In 1943-44 the Extension Library expanded its services in
every field, and the number of individual borrowers increased con-
siderably. Three hundred new books were added to the Library.
Books on contemporary history, biography, fiction, music, art,
drama, co-operation, economics, and sociology were added in response
to popular demand.

One hundred and ninety borrowers were registered with the
Extension Library and received from one to six books every three
weeks, according to their requests. In addition, 80 borrowers who
were registered with Extension evening classes and the "Citizens'
Forum" were sent books on request.

The Contemporary Book Review Series, groups of the latest
books and outlines for reviewing them, was a new series which proved

very popular. Eleven groups and a number of individuals were registered for the series.

Increased interest in current affairs, agriculture and home-making is evident in the growing use made of the Pamphlet Loan Service. The Department now has a considerable collection of pamphlets on a wide variety of topics, which is being used not only by individual borrowers but also by study groups and citizens' forums.

Drama and Radio.

Dramatic activities have continued at a wartime level during the year. Young people's groups have continued to show most energy and enthusiasm, and there has been an increased interest in dramatics among men and women of the Armed Services.

Assistance was given by the Department through visits, personal interviews, and correspondence, by lectures and by the Play Lending Library, to all groups and individuals throughout the Province who requested advice and information.

During the year, additions were made to the Play Lending Library so that the total of plays and books on the theatre and radio now numbers 4,000. Circulation for the year was 4,173, with 116 groups availing themselves of borrowing privileges. Twenty-two groups made use of the special group play-reading collection, many of them carrying out a whole season's programme.

Miss Dorothy Somerset, the instructor in dramatics, was very active in varied organizations throughout the year. During the winter, she assisted the newly-formed Labour Theatre of Vancouver to produce and present its first performance, the "Shipyard Revue". In co-operation with the Department of Education of the University, she gave a course in School Dramatics to students of the Teacher Training Class. She also directed the Players' Club Alumni spring production of "Distant Point". Miss Somerset was invited by the University of Saskatchewan to give the six-weeks' summer course on the Theatre at that University. From Saskatoon she went to Banff as representative of this University at the Western Canada Theatre Conference. The Conference's Annual Playwriting Competition, inaugurated at the suggestion of the Department of Extension, this summer announced its first four awards to Canadian playwrights. Miss Somerset was again elected a member of the Conference Executive Committee.

Music.

The Phonograph Record Loan Service has continued to be one of the most popular services offered by the Department of Extension. Sixty-eight registered groups used the service this year - which is almost double last year's total - while the actual circulation of records was 3,960 - three times as great as in the previous year.

Through the co-operation of the University Committee in charge, recordings from the Carnegie Music Set are loaned to adult

groups throughout the Province. The Department has a separate collection of recordings and during the year this has been enlarged by the addition of popular semi-classical recordings, selected especially for the benefit of men and women in the Armed Services. A special collection of Folk Dance and Square Dance recordings, known as "Dances for Fun", designed to help community groups in planning recreational programmes, has also been added to the library.

In the 1943-44 Evening Class series Dr. Ida Halpern again gave a course in Music Appreciation. In co-operation with the Director of the Summer Session and the Summer Session Students' Association, the Department offered two noon-hour summer courses in Music Appreciation. Both were very well attended.

Visual Instruction Services.

An increased demand for visual instruction material from community groups in all parts of the Province has been the most outstanding development in this Division during the past year. Continued and increased use of the film library by the Armed Services and organizations engaged in war work has also been noted.

The film library has shown a steady growth in the number and variety of its films. Special emphasis this year has been placed upon the purchasing of handicraft and travelogue releases while some attention has been given to obtaining French films for the use of French speaking communities in the Province. The library now has a total of 500 motion pictures, 800 film strips, and 100 sets of lantern slides. Co-operation with the National Film Society is being maintained in the circulation of war information and documentary films.

During the past year visual instruction material has been sent to 360 towns and communities, 64 churches, 150 schools, and 536 organizations. Letters from numerous groups and individuals were received, revealing keen appreciation for the part that visual education is playing in the educational and cultural life of their communities.

This summer the Assistant in charge of the Visual Education Division gave a short course on projector operation to a group of Summer Session students, mainly teachers who were planning to use films in their classes.

Five National Film Board Rural Circuits were in operation in British Columbia during the past year: in the Lower Mainland and Vancouver Island, the Okanagan Valley, the West Kootenays, the East Kootenays, and the Prince Rupert-Prince George area. Monthly showings were given in each community, the programme consisting generally of a major feature of national or international importance, a short educational film, and a film of local interest. More use was made of the field projectionists by community organizations and by schools, and a growing appreciation of the service was revealed in all centres.

In 1943-44, the Department of Extension again co-operated with the Canadian Federation of Agriculture, the Canadian Association for Adult Education and the Canadian Broadcasting Corporation in the presentation of the weekly series of broadcasts for rural listening groups known as the "National Farm Radio Forum." In British Columbia 122 groups and individuals registered with the Department and were sent supplementary literature including the weekly bulletin, Farm Forum Guide, and the pamphlet series, Planning for Plenty. A keen interest was shown by those groups which actively participated in the programme and sent in weekly reports of their findings. This number is still small but the Department is giving every encouragement to the development of greater interest in this important service. The Canadian Federation of Agriculture regards the Forum Findings as a fair measure of farm opinion and as an aid in formulating policy.

During the past year, the Extension Department has served as Provincial Office for the radio programme, "Citizens' Forum", a joint project of the Canadian Broadcasting Corporation and the Canadian Association for Adult Education. This series marks the first large-scale attempt in Canada to interest urban groups in a combination listening-discussion group programme. The fact that 2,000 groups across the Dominion registered as active participants, and 127 in British Columbia alone, exclusive of servicemen, indicates the interest in this new educational method. A Provincial Committee was set up by a general meeting at which representatives of more than 70 organizations were present. The Director of the Extension Department was appointed Chairman of the Committee, and the Assistant in charge of study groups was chosen as Secretary.

Educational Programme for British Columbia Fishermen.

The Dominion Department of Fisheries continues to support a programme for the extension of educational work in co-operative purchasing and selling amongst B.C. fishermen. Efforts of previous years are bearing good fruit in the steady progress of co-operatives and credit unions on this coast. The fishermen themselves are becoming financially more independent and better able to deal with their own problems. They are organizing the Fishermen's Co-operative Federation which, by linking up the co-operative producer with the co-operative consumer, aims to insure greater security and stability of markets for fishermen in the post-war era.

The programme in 1943-44 was slightly disrupted by changes in personnel, but the various workers held over 35 meetings in 20 different towns during the year. As in previous years, books, pamphlets, and study material were distributed freely, and films were made available for numerous meetings.

Course in Personnel Administration.

The first course in Personnel Administration held in 1942 was so successful that the Department of Labour at Ottawa requested

the University to offer a second course during the 1943-44 term. This was carried out in the form of a series of monthly sessions from September to March. The course was designed to aid industrial establishments in the solution of their personnel problems and special emphasis was given to the discussion of local problems of firms engaged in war industry. Outstanding personnel administrators from all parts of the continent were brought to Vancouver as leaders for the course. These included Professor John Riegel of Michigan, Arthur H. Young of California, R. A. Sutermeister, C. J. Bailey, and Clark Kerr of Seattle, Mrs. Vera Berney of Camas, Washington, Allan H. Mogensen and Alvin Dodd of New York, and T. R. Walsh of Ottawa.

Representatives from a large variety of industries attended the course and expressed their appreciation for the assistance received. Through participation in projects of this type, the University is able to keep in direct contact with the industrial life of the Province and to contribute in some measure towards improved industrial relations.

Short Courses.

At the request of the Parent-Teacher Federation of British Columbia a Parents' Institute was held by the Department, June 28 and 29, 1944. The course was designed to meet the special problems which parents face in training children during wartime. Lecturers and discussion leaders were Dr. S. R. Laycock of the University of Saskatchewan and Dr. D. H. Russell of the University of California, both experienced child psychologists. One hundred and fifty registered for the course.

In order to meet the very acute shortage of qualified social workers in this province, the Department held a two weeks' Institute in Group Work from August 14 to 25, 1944, to provide a short period of professional training for men and women employed in community group leadership. Mr. Bernard Ross, a graduate of the School of Applied Social Sciences, University of Pittsburgh, at present the Project Services Adviser for the Housing Authority of Portland, Oregon, conducted the course. Thirty-five men and women, representing such community organizations as the Y.M.C.A. and Y.W.C.A., neighbourhood houses, church young people's groups, and provincial institutions, were in attendance. So successful was the course that the group decided to organize on a permanent basis to meet for discussion of joint problems throughout the year and to affiliate with the American Association for the Study of Group Work, a continent-wide organization for social workers. This Institute in Group Work was made possible by financial assistance from the Welfare Council of Greater Vancouver, and was planned in co-operation with the Professional Course in Social Work at the University.

In co-operation with the Canadian Legion Educational Services, a short course in handicrafts was held for representatives of Women's Divisions of the Western Air Command. The course was of two weeks' duration and offered training in such skills as weaving, woodwork, needlecraft, lino-block printing, leathercraft,

and hobby work in plastics. Those completing the course returned to their stations throughout British Columbia as instructors.

Public Relations: Co-operation with other Organizations.

By arranging programmes of lectures and short courses, by supplying information and material, and through executive guidance, the Department has assisted numerous organizations in their educational work during the past year. Miss Dorothy Somerset has been especially active in this work with her instruction at the Y.M.C.A. So-Ed classes, her assistance to the Labour Theatre of Vancouver in its "Shipyard Revue", her adjudication of C.B.C. auditions and her association with the Recreation Groups Council.

As an experiment a news sheet has been issued monthly. This has been sent to secretaries of study groups and organizations and to individuals interested in the University. Press releases on examination results and other University activities are supplied regularly to newspapers throughout the Province.

Through its work with radio forums, the Department has given assistance to the Canadian Association for Adult Education, the Canadian Broadcasting Corporation, the Canadian Federation of Agriculture, and the Department of Agriculture. Special courses were arranged for the Welfare Council of Greater Vancouver, the Federal Department of Labour, the Canadian Legion Educational Services, the B. C. Parent-Teacher Federation, and the American Society for Metals. Help in a variety of ways was given to all branches of the Armed Services.

In addition, the Director of the Department has been actively associated with the following adult education organizations: Canadian Association for Adult Education; Canadian Youth Commission; the National Film Board of Canada; the Vancouver Institute; Adult Education Committee of the Vancouver Y.M.C.A.; Provincial Nutrition Committee; National Farm Radio Forum; Regional Committee, Canadian Legion Educational Services; and the National Council of Citizens' Forums.

Staff.

The absence of Mr. R. T. McKenzie, the Assistant to the Director, and the many changes in staff during the past year have increased the responsibility of those remaining in the Department. Mr. George Greenwell, the field worker in charge of the co-operative educational programme, resigned in March and has since joined the Air Force. Miss Audrey Andrews, Assistant in charge of the Visual Education Division, accepted a position as secretary of the B. C. Industrial Research Council.

Acknowledgments.

61.

The Director wishes to take this opportunity of recording his appreciation of the assistance and co-operation received from the President and the members of the governing bodies of the University, and from his colleagues on the Faculty. The loyal co-operation of all members of the staff of the Department is gratefully acknowledged.

Respectfully submitted,

G. M. SHRUM,

Director of University Extension.

REPORT OF THE DIRECTOR OF THE UNIVERSITY HEALTH SERVICE

SUMMARY)

The Health Service has had a busy year. Much of the work is of a routine nature but at all times emphasis is placed on prevention and the whole programme is designed to this end.

The physical examination of new students in the Fall is useful in determining health status and capacity for physical exercise, and also in evaluating defects and recommending remedial measures. The continued increase of student visits to the office year by year indicates the desire of the students to discuss health problems. Students are encouraged to visit the office and it is interesting to note that many of their questions deal with community as well as personal health.

Prominent in our work is Communicable Disease Control. The programme calls for the Tuberculin Testing of new students. The Chest X-ray Service provided by the Provincial Board of Health Division of T.B. Control has made it possible for positive reactors and many others to be x-rayed. The control of Tuberculosis among University students is most important. Fortunately there was no outbreak of Major Communicable Disease during the year. Influenza was epidemic during December and January but was fortunately of a mild character. Checking of contacts of communicable disease has taken considerable time but it is worthwhile in reducing wholesale dismissal because of contact, which in many cases would be necessary if no health supervision were available. A considerable number of students have been immunized against Smallpox, Diphtheria, Scarlet Fever, Typhoid Fever and Tetanus.

We have had the utmost co-operation from the Army, Air Force and Naval establishments at the University. The C.O.T.C. kindly provided quarters for the examination of new students and we shared these quarters with the C.O.T.C. and the U.A.T.C. during the Fall months. The C.O.T.C., U.A.T.C. and U.N.T.D. are each responsible for the examination of male students entering these various services. The respective Medical Officers provided us with the results of the physical examinations, an arrangement which satisfies University requirements. During the year daily lists of students reporting sick were dispatched to the Medical Officers of various military groups.

The Compulsory Wartime Women's Training Course required the re-examination of intermediate and senior students. This we were glad to do.

First Aid and emergency accident services have been important items in the daily routine. During the year the Fire Hall was set up as an emergency First Aid Station for after hours. Minimum first aid equipment was also recommended for various buildings on the Campus from which accidents were most commonly reported.

Hard of hearing students were tested by the Audiometer. This machine is routinely used in Vancouver schools to test for deafness. The test is valuable in assessing the degree of hearing loss and the need for further investigation and treatment.

A course of lectures on Communicable Disease Control and Municipal Health Organization was given to students taking Sociology. Our staff members also assisted the Department of Education in giving several lectures on Health.

We are indebted to the President, Faculty Members and the Department of Nursing and Health for much timely advice and assistance in the performance of our duties. A full statistical report of our activities has been made, of which the following is a brief condensation.

Total number of students receiving a physical examination - 1328, of which 975 were new students. New employees of the Cafeteria Staff were also examined. In addition 550 men were examined by the Medical Officers attached to the various military groups.

There were a total of 11,926 visits to the office during the year, or nearly five visits per University student. First Aid treatments numbered 2806.

A total of 93 students were vaccinated against Smallpox. Three students received Diphtheria Toxoid, 15 Scarlet Fever Toxin and 79 Typhoid Paratyphoid Tetanus Vaccine. In addition 26 students received reinforcing doses of the various biological products.

Tuberculin tests numbered 879. It was found that the positive tuberculin rate was 13.8%, while for new students only the rate was 15.5%. A total of 519 individuals were x-rayed. Five new cases of Tuberculosis were discovered. One student had moderately advanced active disease and left University for Hospital. The others were allowed to continue, their activity being minimal and apparently cured. In addition, there are 20 other students attending University who have had tuberculosis. These cases are quiescent, arrested and apparently cured. Approximately 1% of University students are found to have Tuberculosis. By constant check and supervision it is possible for the vast majority of these students to continue their academic courses.

Respectfully submitted,

J. S. KITCHING

Director of University Health Service.

REPORT OF THE ASSISTANT DIRECTOR
OF PHYSICAL EDUCATION

PHYSICAL EDUCATION FOR MEN

Required Programme.

Seventeen classes were scheduled during the session 1943-44 for C.O.T.C. and U.N.T.D. men required to take one hour of physical training each week. The instructional staff for this programme consisted of nine undergraduate members of the C.O.T.C. supervised by the Assistant Director of Physical Education.

Although it was fully recognized that such a limited plan produced a questionable amount of physical fitness, physical efficiency examinations were conducted and the men encouraged to work toward certain standards.

Teacher Training.

Lectures and demonstrations in Health and Physical Education were conducted three hours per week for students in teacher training. This work, given under the Department of Education, offered one hour of Health Education and two hours of Physical Education each week. An effort was made to acquaint those taking the courses with certain aims, objectives, principles and methods that would give them an insight into the extensive problems of these two fields. These short courses were open to any one taking Education and were not limited to students with any particular qualifications in Health and Physical Education.

Intramural Athletics.

The intramural sports calendar included twelve activities. Sixteen teams took part in this programme, with an average of over two hundred men participating each week. The year's programme included the following athletic events: volleyball, basketball, cross country, swimming, track and field, touch football, table tennis, snooker, badminton, golf and softball.

Equipment and Facilities.

With the number for any one class set at the accepted standard of 30, the time and space now available for men in physical education make it possible to provide adequately for 600 men once a week or 300 men twice a week. (See outline on page 65). Over 1,500 men were enrolled at the University during the session 1943-44. It has been estimated that this number will be increased by one third in 1945. With the present facilities

equipment the following alternative plans are possible:

PRESENT ACCOMODATIONS FOR PHYSICAL EDUCATION

	Time Table	No. of Men Accomodated	Estimated Under- graduate Male Enrollment (1944-45)	No. of Men not provided for.
Plan 1	<u>Phys.Ed.</u> 2 hrs. per week.	300	2,000	1,700
11	<u>Phys.Ed.</u> 1 hr. per week.	600	2,000	1,400
Plan 111	Recreation only.	600	2,000	1,400

The table shows the possibility of providing something for 600 men, a modified programme for 300 men, or recreational opportunities for 600 men without a teaching programme. It is also shown that well over fifty per cent. of the estimated 2,000 men will find it impossible to participate in any type of programme.

Intercollegiate and Extra-mural Athletics.

With the possibility of the university athletic programme assuming much greater proportions in the near future, it is suggested that the advisability of adhering to certain professional standards receive careful consideration. Particular reference is made to the problems connected with coaching and the relationship of a Physical Education Department to student sponsored athletics.

Recommendations.

The University authorities have been asked to consider the establishment of a Department of Physical Education which would offer a required programme and a degree course. The reasons for such a request and the reorganization necessary are included in the report of a joint committee of Senate and Faculties on "The Manner In Which A Department of Physical Education May Be Set Up and Administered." Assuming that this

entire problem may require considerable time for discussion and ways and means, the task of setting up a useful programme of any type should receive immediate consideration. Evidence set forth elsewhere in this report attempts to outline the difficulties which face Physical Education at this University regardless of the authorized programme.

There are already returned men on the campus that can not be accomodated. There are over 200 men on the campus that need corrective exercises who cannot be served. With the present facilities it is not possible to organize and administer a scientific programme in Physical Education for more than 300 men who are organically sound. In addition to these difficulties, the future enrollment will include men who have had some phase of physical training every day for a period of several years. To suddenly give up such a routine will certainly lead to mental, emotional, and physical breakdowns.

It is urged that the value of Physical Education be recognized in helping to promote fitness, correct physical defects and provide recreational opportunities; and that, where possible, certain responsibilities be assumed by the University.

Respectfully submitted,

M. L. VAN VLIET,

Assistant Director of Physical
Education.

REPORT OF THE INSTRUCTOR IN
PHYSICAL EDUCATION FOR WOMEN

Registration.

The war work programme, Part A, requires every undergraduate woman student to take one hour a week of physical activity. Over eight hundred women were registered and assigned to classes; their medical cards were checked and their attendance records kept. Seven hundred and twenty-eight women attended classes in morning periods and on Saturday afternoon. Attendance records during the session were satisfactory except in a few cases. These students were required to complete the course before the end of the academic year. Sixty-six women were given medical exemption from physical activity. Under ideal circumstances special classes should be organized for students of this category.

Programme of Classes.

Activities were selected which would accommodate the large number of students to the best advantage. The present facilities and staff and time table problems limit the programme considerably. The programme was as follows:

Keep Fit Classes to develop balance, flexibility, agility, strength and endurance were conducted to meet the needs of three different groups: two senior classes (90 registrations) for upper class women whose skill permitted advanced work; one for nurses (52 registrations), many of whom were graduates unaccustomed to regular strenuous exercise; and four freshman classes (202 registrations), where basic work was given in preparation for activity courses in the upper years.

In Badminton (105 registrations) there were two classes for beginners and two for advanced players. In Archery (72 registrations) there were three classes for beginners. Two classes in Volleyball (66 registrations) and one in Basketball (25 registrations) provided for students desiring to learn these games and also to learn to coach and referee them.

Two classes in Recreational Leadership (43 registrations) provided courses in theory of Play and Leadership as well as practical work in various recreational activities. Courses were also given in Rhythms and Dancing (73 registrations) for teachers and leaders. This included practical work as well as theory.

Sports.

The instructor was a member of the Women's Athletic Directorate. She gave counsel, assistance and supervision in the organization and conduct of various sport activities. A

greater amount of supervision and encouragement is highly desirable in this phase of the women's programme. The need for increased facilities for women's sports is imperative.

An Intramural programme of four sports with eight teams competing carried out a schedule of games at noon hours from October 1st-March 31st. Due to instruction periods in these sports, as part of the required programme, the skill in games played has improved. This in turn has created keener competition and added interest. Over two hundred women took part in the intramural games. Three teams finished the entire series with only five points difference in total score.

A swimming Meet was held in January. This is more fully described later in the report.

A Recreation Period was conducted on Wednesday afternoon.

Education Class.

The Education Class was given instruction in various activities suitable for the school physical education programme.

Assistants

The Physical Instructor had the following assistants this year:

A qualified part time instructor in physical education assisted in the teaching of classes.

Additional office help was provided. (One student - part time. One office helper - part time. The office staff assisted with administration and general office duties. They kept attendance records, assisted with the checking of health certificates, supervised and repaired equipment and checked sports equipment in and out.

Regularly appointed fully qualified instructors for various activities and full time office staff are regarded as essential for carrying on a programme in physical education for as large a number of women students as the eight hundred registered this year.

Future Programme.

It is recommended that the required programme for women students be continued for the following reasons:

1. The co-operation and enthusiasm of the women students expressed through the satisfactory attendance records during the year. Their unanimous vote to continue the programme at the meeting of the Women's Undergraduate Society and Women's Athletic Association in March, 1944. The request for an extension of the required programme and the organization of a Department.

11. A simple Physical Efficiency Test given in all Keep Fit Classes in October and again at the end of March shows:

A need among the women students for physical training. A general improvement in ability with regular exercise over a period of time.

The following specific results:

- a) The percentage of passes in the simple test in all Keep Fit Classes was low in October. In one class it was as low as 54. The percentage of passes in all classes increased markedly in March.
- b) In October the class showing the highest percentage of passes (72%) in the simple test was a senior Keep Fit Class. Many of these students had been in a Keep Fit Class the previous year.
- (c) In March the class showing the highest percentage of passes in the simple test was Keep Fit 1 (80%) (Nurses Class).
- (d) A freshman class (Keep Fit 7) had a record of third place in October and second place in March in the simple test. In an advanced test in March, this class showed the greatest proficiency of all classes.

111. A marked increase in participation of all sport activities as demonstrated by:

- a) The Intramural Programme as outlined previously

Two swimming meets had been held in the five years prior to the organizing of the required programme. Last year a successful meet was held. This year another meet was held with twice as many contestants as last year.

- (c) Basketball and Grass Hockey carried on as in former years, but with a larger number of students attending games and practices more regularly. Several additional friendly matches were played in Vancouver and Victoria.

The first series of Softball games was played this spring as part of the Intramural programme. Six teams - nine women on a team - competed.

The recreation period on Wednesday afternoon provided players with an opportunity for extra time in Archery, Badminton, Ping Pong and Volleyball.

IV. The realization amongst women students of the need for professional courses in the field of Physical Education, Recreation and Group Work. The Government National Fitness scheme will require many trained women for carrying out the plans. School programmes demand that more women be qualified to teach physical education and health, which are compulsory subjects in Elementary, Junior and High Schools of this Province. The present emergency of wartime demands more workers than are available as leaders in industrial recreation programmes, community centres, and various types of group work, to improve and maintain a higher standard of health, to encourage a wise use of leisure time and to assist in combating delinquency. Recent events indicate that this demand for leaders and teachers will be more pronounced in the period following the war.

Respectfully submitted,

GERTRUDE E. MOORE,

Instructor in Physical Education
for Women.

REPORT OF THE OFFICER COMMANDING
UNIVERSITY NAVAL TRAINING DIVISION
UNIVERSITY OF BRITISH COLUMBIA

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1 General.

The University Naval Training Division was first established at the University of British Columbia about 1st April, 1943. This first Annual Report is, therefore, extended to include the activities from that date.

The purpose of the U.N.T.D. is to provide Naval Training for University students who are interested in the Naval Service. Students are enrolled as Ordinary Seamen or Stokers Class 11, the lowest ratings in the Executive and Technical Branches respectively.

The students are actually attested in the Service on Divisional Strength at H.M.C.S. "Discovery" and are, in effect, on leave without pay except the Bounty Pay for individual training parades. When the student leaves the University for any reason he is called on Active Service.

The U.N.T.D. ratings are promised that they will appear before a Preliminary Officers' Selection Board before being called to Active Service. If accepted as Officer Candidates, they proceed to advanced training as such. If not accepted, they proceed as would any man enrolled in the Service.

In April, 1943, students were offered the opportunity of enlisting and taking Spring Training with the Navy instead of with the Army. On completion of the two weeks' training, many men went directly on Active Service and the remainder returned to the University in September, when new entries were again enrolled.

The assignment of Bounty Pay was exactly the same as for the C.O.T.C. and U.A.T.C. Each rating and officer received five dollars, and the remainder was divided - 90% to the General Services Trust Fund and 10% to U.N.T.D. Fund.

The unit paraded with the division at H.M.C.S. "Discovery" at a Church Parade in November. The unit also participated with the C.O.T.C. and U.A.T.C. in the annual Cairn Ceremony on 1st April, 1944, when President Klinck took the March Past Salute.

Lieut. Commander K. C. McRae, Officer Commanding H.M.C.S. "Discovery", inspected the Unit on 29th March, 1944.

The numbers of enlistments and Active Service calls are listed in the following Record of Enlistments and Disposals:

RECORD OF ENLISTMENTS AND DISPOSALS

	<u>Sto.11</u>		<u>Ord. Seaman</u>		<u>TOTAL</u>
	<u>Officer Candidate</u>		<u>Officer Candidate</u>		
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>	
New Entries April, 1943		30		72	102
Active Service May,1943			21	1	22
Active Service before September,1943			12	2	14
Discharged before Sept.,1943				2	2
<hr/>					
Old hands returned		28		36	64
New entries		<u>15</u> 43		<u>80</u> 116	<u>95</u> 159
Active Service by Jan.,1944			6	8	14
Discharged by Jan.,1944				4	4
On strength April,1944		43		98	141
Active Service by May,1944	6		32	15	53
Discharged by May,1944	1				1
Active Service for Summer only	7				7
Spring Training Camp (Includes 11 who later went Active Service.)		23		68	91

2. Training.

In accordance with University requirements, six hours per week were spent in service training and physical training. With the co-operation of the C.O.T.C., U.N.T.D. ratings took one hour of physical training per week with the C.O.T.C. cadets.

Training periods were two hours on Wednesday afternoon, three hours on Saturday afternoon or Monday night, and one hour P.T.

The training syllabus, laid out by C.O.N.D. for all U.N.T.D. ratings, is a three-year programme, with as little repetition as possible from year to year. During the 1943-44

period, only the first year training was given. Hereafter, there will be two and then three training groups in the Unit.

The actual instruction was given by Officers and Instructors from the active service instructional staff at H.M.C.S. "Discovery". The first year training covered that given to new entries at H.M.C.S. "Discovery" in eight weeks and much additional instruction of general interest.

3. Spring Training Period.

No exemptions were granted from this training period except to men who were going on Active Service for the duration or for the five Summer months.

The U.N.T.D.'s of Manitoba, Saskatchewan, Alberta and British Columbia Universities were trained at H.M.C.S. "Naden", Esquimalt, B.C. The training programme was carefully laid out to fit the first year syllabus for both Ordinary Seamen and Stokers.

Stokers in pre-final years were given the opportunity to go on Active Service for the five Summer months. During this period, most of the men were assigned to sea duty on Coastal Patrol or North Atlantic Convoy.

Respectfully submitted

H. M. McILROY,

H. M. McIlroy,
Lt. Cmdr. (S.B.) R.C.N.V.R
C.O., U.N.T.D., U.B.C.

REPORT OF THE OFFICER COMMANDING
CANADIAN OFFICERS' TRAINING CORPS
THE UNIVERSITY OF BRITISH COLUMBIA CONTINGENT

1. General.

This report covers the activities of the U.B.C. Contingent, C.O.T.C., for the fifth year of the war. This is the first year in which all three branches of the Armed Forces have been represented on the Campus. The University Naval Training Division and the University Air Training Corps were given accommodation in the C.O.T.C. Armoury and trained 152 ratings and 259 airmen respectively.

The 1943-44 training year was marked by an increase in establishment to include a detached company at Victoria College. This company consisted of 51 Other Ranks with T/Major J. F. Herd as Acting Officer Commanding. On 1st July, 1944, T/Capt. R. T. Wallace, a member of the staff of Victoria College, was appointed Officer Commanding, Victoria College Company of the C.O.T.C.

On the 22nd September, 1943, a \$29,000.00 addition to the Armoury was formally presented to the University and accepted on behalf of the Board of Governors by the late Chancellor R. E. McKechnie. This addition provides space for Q. M. Stores, training equipment, lecture rooms, recreation room and offices for the training staff.

The Corps was formally inspected by Major General J. P. McKenzie, Inspector General for Western Canada, on 11th March, 1944.

At the last parade of the year, 1st April, 1944, the three services took part in the Annual Cairn Ceremony. The salute was taken by President L. S. Klinck. It was the last parade of the three Units prior to President Klinck's retirement in June, 1944.

Following the parade a banquet was held in the Hotel Vancouver in honour of those members of the three Units who were leaving for Active Service in the Navy, Army and R.C.A.F. The men leaving for Active Service were honoured by addresses from the late Chancellor R. E. McKechnie, Major General G. R. Pearkes, V.C., D.S.O., M.C., G.O.C.-in-C., Pacific Command, Commander G. O. Baugh, O.B.E., R.C.N.R., Air Vice-Marshal G. R. Howsam, M.C. and President L. S. Klinck.

During the year 106 members of the C.O.T.C. volunteered and were accepted for Active Service. The enlistments were distributed among the three Services as follows:

Navy	14
Army	66
RCAF	26

2. Training.

Six hours per week were devoted to military and physical training. In addition, the Officers and N.C.O's were required to attend at least one extra two-hour instructor's parade per week. Although the greater part of the training was done on Wednesday and Saturday afternoons, evening parades were provided for those whose timetable and work made it impossible to attend during the day.

Two teams were entered in the February and March competitions of the Dominion of Canada Rifle Association. One of these teams was awarded a prize of five dollars. Cadet E. J. Lee was high scorer on the winning team with 97 out of 100.

A number of Officers were prepared for theoretical and practical qualifying examinations.

3. Camp.

Special arrangements were made by Major General G. R. Pearkes for the Unit to attend Annual Camp at S. 16, Combined Operations School at Courtenay, B.C. The total camp strength was 485. Leave was granted to 278 men who were unable, due to special circumstances, to attend camp.

All ranks were very appreciative of the type of training provided and were high in their praise of the co-operation by the staff of the Combined Operations School. There is no doubt that this was the most successful camp ever held by the Unit. This was demonstrated by the keen enthusiasm shown by all ranks both before, during, and after the camp.

As in 1943, arrangements were made by the G.O.C.-in-C, Pacific Command, to send a platoon of the C.O.T.C. to S.17, Canadian School of Infantry at Vernon, B.C. This platoon consisted of 36 other ranks under the command of 2/Lt. J. Carlilo. They were given an opportunity to fire all types of Infantry weapons and were very enthusiastic in their praise of the training.

4. Staff.

The authorized Administrative and Training Staff consisted of two Officers and four Warrant Officers for training, and one Officer, two Non-Commissioned Officers and three clerks for administration. Major J. P. G. MacLeod, D.S.O., and Captain R. F. Osborne served as Training Officers and Captain S. E. Walmsley as Adjutant.

5. Discipline.

The discipline during the year was excellent and all ranks were commended on the spirit shown at parades and lectures as well as at Annual Camp.

6. Acknowledgments.

The Commanding Officer wishes to record his thanks and appreciation for the assistance and co-operation afforded him by the late Chancellor, the President of the University, the General Officer Commanding Pacific Command, the Commanding Officer 39th (R) Brigade Group, the University Committee on Military Education, the Commanding Officers of the U.N.T.D. and the U.A.T.C. and by all ranks of the Contingent.

Respectfully submitted,

G. M. SHRUM

G.M.Shrum), M.M., Lt.-Col.,
Officer Commanding,
U.B.C.Contingent, C.O.T.C.

REPORT OF THE OFFICER COMMANDING
NO. 6 SQUADRON, UNIVERSITY AIR SQUADRON
ROYAL CANADIAN AIR FORCE

1. General.

On June 28, 1943, an agreement was signed by the Department of National Defence for Air and the Board of Governors of the University regarding the establishment of a unit of the University Air Training Corps (now known as "University Air Squadrons") on this Campus.

At the same time Captain J. Allen Harris (COTC), Associate Professor of Chemistry, was recommended as Commanding Officer of the new unit. This recommendation was approved by A.F.H.Q. and the above named officer was commissioned in the R.C.A.F. as Squadron Leader.

Subsequently Associate Professor William Ure of the Department of Chemistry and Professor Walter H. Gage of the Department of Mathematics were commissioned as Flight Lieutenants.

In August the three officers attended courses in Alberta, S/L J. Allen Harris taking the Officer's Qualifying Course at Macleod, Alberta, and Flight Lieutenants W.H. Gage and W. Ure taking the Navigation Instructor's Course at Calgary, Alberta.

During the first term, owing to a larger enlistment than anticipated, it was necessary to have another officer Instructor, and Associate Professor D. C. B. Duff of the Department of Bacteriology was commissioned as Flight Lieutenant.

2. Enlistments.

Only students of Aircrew medical standard may be enlisted in the U.A.S. - although permission was obtained to enroll some 30 others as technical personnel. The figures below are self explanatory.

Applications for enlistment.....	328
Rejected on Medical Grounds	<u>69</u>
Enlisted Airmen.....	259
Transferred from other units.....	<u>1</u>
Total O.R.'s	260
U.A.S. Officers	4
R.C.A.F. Officers.....	1
R.C.A.F. N.C.O.s	<u>2</u>
Total All Ranks	267

3. Disposition of Personnel.

Enlisted for Active Service.....	54
Unable to meet new requirements, Active Service	13
Assigned to Army or Navy as Technical Personnel	9
Assigned to Industry on Graduation.....	18
Discharged for Disciplinary Purpose.....	2
	<u>96</u>

Strength - O.R.s - August 31, 1944

4. Training.

The University requirements of 6 hours Military Training per week were rigorously met and the 1st year syllabus of the U.A.S. training programme completed.

Instructors in the various courses were:

Navigation - Mathematics	F/L's W. Ure and W. H. Gage
Air Force Law -Organization Discipline, etc.	S/L J. A. Harris and F/L G. A. Mills
Signals	F/L D. C. B. Duff and F/O D. M. Hogarth
Aircraft Recognition	F/O D. M. Hogarth
Airmanship	F/O D. M. Hogarth
P.T. & Drill	F/S D. S. Sisk

F/L G.A.Mills was an effective Administrative Officer, and F/S C. Vels an efficient Orderly Room Sergeant.

5. Camp.

201 airmen and 2 officers attended the summer camp training. For this training No. 6 Squadron, U.A.S., was joined by No. 23 Squadron, U.A.S., Victoria, B.C., and travelled in Special Colonist Cars as a unit to Calgary. At this point the party was broken down into three groups, the first proceeding to No. 19 S.F.T.S., at Vulcan, under Command of F/L D.C.B.Duff of University of British Columbia, the second to No. 15 S.F.T.S., at Claresholm, under S/L W.G.Fields of Victoria College, and the third to No. 7 S.F.T.S., at Macleod, under the command of S/L J.A.Harris, of University of British Columbia. This latter arrangement was made as a result of the unfortunate illness of F/L W.Ure, who had originally planned to take over command of one of the units, and left S/L J.A.Harris, as commanding officer of the party, free to move between all stations. However, it was possible for the C.O. to fly to the other stations occasionally to keep in touch with training progress.

Due to the exceedingly high pressure of academic duties Flight Lieutenant W. H. Gage was granted official leave to be absent from camp.

While there was naturally some difference between the training schedules at the various stations the Syllabus of the training at the Macleod station gives an indication of the work done.

The keenness of the airmen at the various stations is evidenced by the fact that the group at No. 7 S.F.T.S. won the coveted station pennant for the smartest barrack block on the station for the week during which the A.O.C. made his regular inspection. The Commanding Officer of the station was kind enough to present the group with a special pennant to hang in the Orderly Room.

6. Examinations.

Examinations set by the R.C.A.F. were held during the last two days of camp. The results are published below:

Number writing	186
Passed	112
Passed with Supps.	66
Failed	8

Several airmen were allowed to return to Vancouver for graduation and so did not write their examinations.

7. Extra Curricular Activities.

On October 30th the University celebrated its annual homecoming and the U.A.S. co-operated with the other services in staging a demonstration for the visiting graduates. Later in the term the unit also took part in staging parades for the National Film Board's "Universities at War".

President L. S. Klinck inspected the Squadron on November 27th, 1943, its first official parade. Group Captain C. H. Flinn represented the A.O.C.

Air Vice Marshal G. R. Howsam, MC, paid an informal visit on 23rd February, 1944, and the final inspection was held on 25th March, 1944, by Group Captain C. H. Flinn and S/L W.M. Bowman, after which a reception was held in the Officer's Mess.

The last official function before camp was the farewell dinner in the Hotel Vancouver for all students leaving for active service, and their fathers. Air Vice Marshal G. R. Howsam, MC, flew from Calgary especially for this occasion.

8. Guest Speakers.

During the year the unit was privileged to be addressed by Brigadier P. C. Tees, who had returned from 3 years in England; Wing Commander E. F. J. Charles, DSO, DFC, also gave an interesting account of operations over Europe, while Squadron Leader K. B. Forster, DFC, spoke on team work in an aircrew.

9. Social Functions.

On 4th March, 1944, in the Brock Memorial Hall, the Squadron held the first of what is hoped will be a series of Annual Balls. Music was supplied by the orchestra of Western Air Command. Some 200 couples were afterwards entertained for supper in the officers' mess through the kindness of Lt. Col. G. M. Shrum, MM.

10. Acknowledgments.

The Commanding Officer is extremely grateful for the help and co-operation he received from many sources. It would be impossible to enumerate them all but special mention should be made of Lt. Col. G. M. Shrum, MM, Senior Officer Commanding the University Services, not only for the provision of excellent training quarters but for his helpful advice. The co-operation of President L. S. Klinck and the Military Committee of the University was also deeply appreciated.

The Squadron wishes to express its sincere thanks to the A.O.C. of Western Air Command, particularly for the use of the band and orchestra whenever requested, and to Flight Sergeant Micelli, its capable leader.

The officers and staff of No. 1 Recruiting Centre, No 3 Repair Depot and No. 2 Equipment Depot all co-operated magnificently.

Lastly the personal interest taken in the unit by Major General G. R. Pearkes, VC CB DSO MC, G.O.C. in C. Pacific Command, and Air Vice Marshal G. R. Howsam, MC, Air Officer Commanding No. 4 Training Command, Calgary, was a constant source of inspiration.

Respectfully submitted,

J. ALLEN HARRIS,
J. Allen Harris) S/L
C.O. No. 6 U.A.S., RCAF.

FACULTY OF ARTS AND SCIENCE

Department of Bacteriology and Preventive Medicine

DOLMAN, C.E.

Abstract: Bacterial food poisoning. Digest of treatment 7:
January 1944.

Abstract: Observations on the antigenic properties of
staphylococcus enterotoxin. Canadian journal of public health
35:92-3 February 1944.

RANTA, L.E. and Dolman, C.E.

Abstract: A mouse protection test for cholera vaccine. Canadian
journal of public health 35:92 February 1944.

Department of Chemistry

SEYER, W.F., Patterson, R. E., and Keays, J.L.

The density and transition points of the n-paraffin hydrocarbons.
American chemical society. Journal 66:179-82 February 1944.

MARSHALL, M.J.

The Molecular Complexity of Some Gases in the High Frequency
Discharge. Electrochemical society. Transactions. 84:109-20 1943.

HOOLEY, J.G., Hicks, J.F., and Stephenson, C.C.

The heat capacity of carbon tetrachloride from 15 to 300°K; the
heats of transition and of fusion; the entropy from thermal
measurements compared with the entropy from molecular data.
American chemical society. Journal 66:1064-7 July 1944.

Department of Classics

TODD, O.J.

Review: Yale classical studies, volume 8. Classical philology
8:61-3 January 1944.

Department of Commerce

CURRIE, A.W.

Aiding Trans-Canada airways. Public affairs 7:144-7 June 1944.

Rate control of public utilities in British Columbia. Canadian
journal of economics and political science 10:381-90 August 1944.

Department of Economics, Political Science and Sociology

DRUMMOND, G.F.

British Columbia and its people. Ottawa, King's printer, 1945.
(Canada. Wartime information board. Canadian affairs vol.2
no. 1) 19 p.

Department of Economics, Political Science and Sociology (Continued)

SMITH, Marjorie

Rural case work services. New York, Family welfare association of America, 1943. 62 p.

TOPPING, C.W.

Canadian penal institutions. Revised edition. Toronto, Ryerson press, 1943.

Recent trends in Canadian penal institutions. Prison world 6:4 July-August 1944.

Department of Education

CAMERON, M.A.

The unit method of teaching in the secondary school. School (Secondary edition) 32:114-17 October 1943.

TYLER, F.T.

The remedial reading program. Wilson library bulletin 18:160-3 October 1943.

Reporting pupil progress. School (Elementary and secondary editions) 32:285-9 December 1943.

TYLER, F.T., and Chalmers, T.M.

The effect on scores of warning junior high school pupils of coming tests. Journal of educational research 37:290-6 December 1943.

Department of Geology and Geography

WILLIAMS, M.Y.

Geological reconnaissance along the Alaska highway from Fort Nelson, B.C. to Watson Lake, Yukon. Ottawa, King's printer, 1944. (Canada. Geological survey. Paper 44-28 with map)

The stratigraphy and palaeontology of Hong Kong and the New Territories. Royal society of Canada. Transaction ser 3,37, sec. 4:93-118 1943.

Stratigraphy and structure in Mount Huelcross-Commotion Creek map-area British Columbia. Summary account by R.T.Wickinden and G. Shaw - an appraisal. Western miner 17:47-8 August 1944.

GUNNING, H.C.

Geology and prospecting. Miner 17:27-9 February 1944.

WARREN, H.V. and Thompson, R.M.

Indium in British Columbia. Miner 16:39-40 December 1943.

Tin in western Canada. Western miner 17:40-6 August 1944.

Department of History

SAGE, W.N.

Amor De Cosmos, journalist and politician. British Columbia historical quarterly 8:189-212 July 1944.

Frederic William Howay, 1867-1943. Canadian historical review 24:448-9 December 1943.

Frederic William Howay (1867-1943): historian of British Columbia. British Columbia historical quarterly 8:4-5 January 1944.

Graduate training in Canadian universities with special reference to the requirements for the M.A. and Ph.D. degrees. Ottawa, Canadian social science research council, January 1944. 40 p.

THRUPP, Sylvia

The problem of conservatism in fifteenth century England
Speculum 18:363-8 July 1943.

Review: Mowat, R.B. and Slosson, Preston. History of the English-speaking peoples. American journal of sociology 50:154 September 1944.

Department of Mathematics

BUCHANAN, Daniel

The geopolitical relationship of Canada to the rest of the world (In Fitzgibbon, Russell H., ed. Global politics. Berkeley, University of California press, 1944. p. 79-89)

Periodic and asymptotic orbits in a five-body problem. Canadian journal of research 22 sec A:1-25 January 1944.

Periodic orbits for four finite bodies with repulsive and attractive forces. Royal society of Canada. Transactions ser 3, 37, sec. 3:1-7 1943.

GAGE, W.H.

An arithmetical identity. Royal society of Canada. Transactions ser 3, 37, sec. 3:9-11 1943.

Department of Philosophy and Psychology

IRVING, J.A.

British Columbia students discuss life and religion United Church observer 6:5, 24 March 1, 1944.

The discussion on religion and life at the University of British Columbia. Western recorder 19:3-4 February 1944.

The psychological analysis of wartime rumor patterns in Canada. Canadian psychological association. Bulletin 3:40-4 October 1943.

Psychology - a guide to reading. Ottawa, Canadian legion educational services, June 1944. 20 p.

Department of Philosophy and Psychology (Continued)

IRVING, J.A.

Religion and life. Graduate chronicle (The University of British Columbia) p. 26-7 March 1944.

Social change and education. Graduate chronicle (The University of British Columbia) 5:2-7 October 1943.

Department of Physics

HENNINGS, A.E.

The synthesis of light. American journal of physics 12:232 August 1944.

PETRIE, William

The temperature of the solar chromosphere. Royal astronomical society of Canada. Journal 38:137-42 April 1944.

WATSON, J.H.

Applied electron microscopy. Canadian journal of research 21 sec A:89-98 November 1943.

WRIGHT, K.O.

Line intensities and solar curve of growth. Astrophysical journal 99:249-55 May 1944.

Department of Zoology

COWAN, I. McT.

Aspergillosis in a Thayer gull. Murrelet 24:29 May-August 1943

Economic status of the pheasant on the cultivated lands of the Okanagan valley, British Columbia. British Columbia. Department of provincial game commission. Report 1942: M49-M62 1943.

Notes on the life history and morphology of cephemyia jellisoni Townsend and lipoptena depressa Say, two dipterous parasites of the Columbian black-tailed deer (odocoileus hemionus columbianus (Richardson) Canadian journal of research 21 sec D:171-87 June 1943.

SPENCER, G.J.

A note on mites (Acarina) and aspergillus (fungus) in baled mouldy hay. Entomological society of British Columbia. Proceedings 40:9-10 September 1943.

On the oviposition habits of the Australian cockroach, periplaneta australasiae (Fabr). Entomological society of British Columbia. Proceedings 40:29-30 September 1943.

Some records of long-legged flies from British Columbia (diptera: dolichopodidae). Entomological society of British Columbia. Proceedings 40:24-5 September 1943.

FACULTY OF APPLIED SCIENCEDepartment of Mechanical and Electrical Engineering

COULTHARD, W.B.

Cascading of induction motors mechanically coupled to A.C. commutator motors. Franklin institute. Journal 236:167-90 August 1943.

FACULTY OF AGRICULTUREDepartment of Horticulture

HARRIS, G.H.

Some effects of micro-elements on growth and storage of carrots and turnips. American society for horticultural science. Proceedings 43: 219-24 1943.

Department of Poultry Husbandry

BIELY, Jacob

The avian leucosis complex. A note on avian osteopetrosis. Canadian journal of comparative medicine 7:276-9 September 1943.