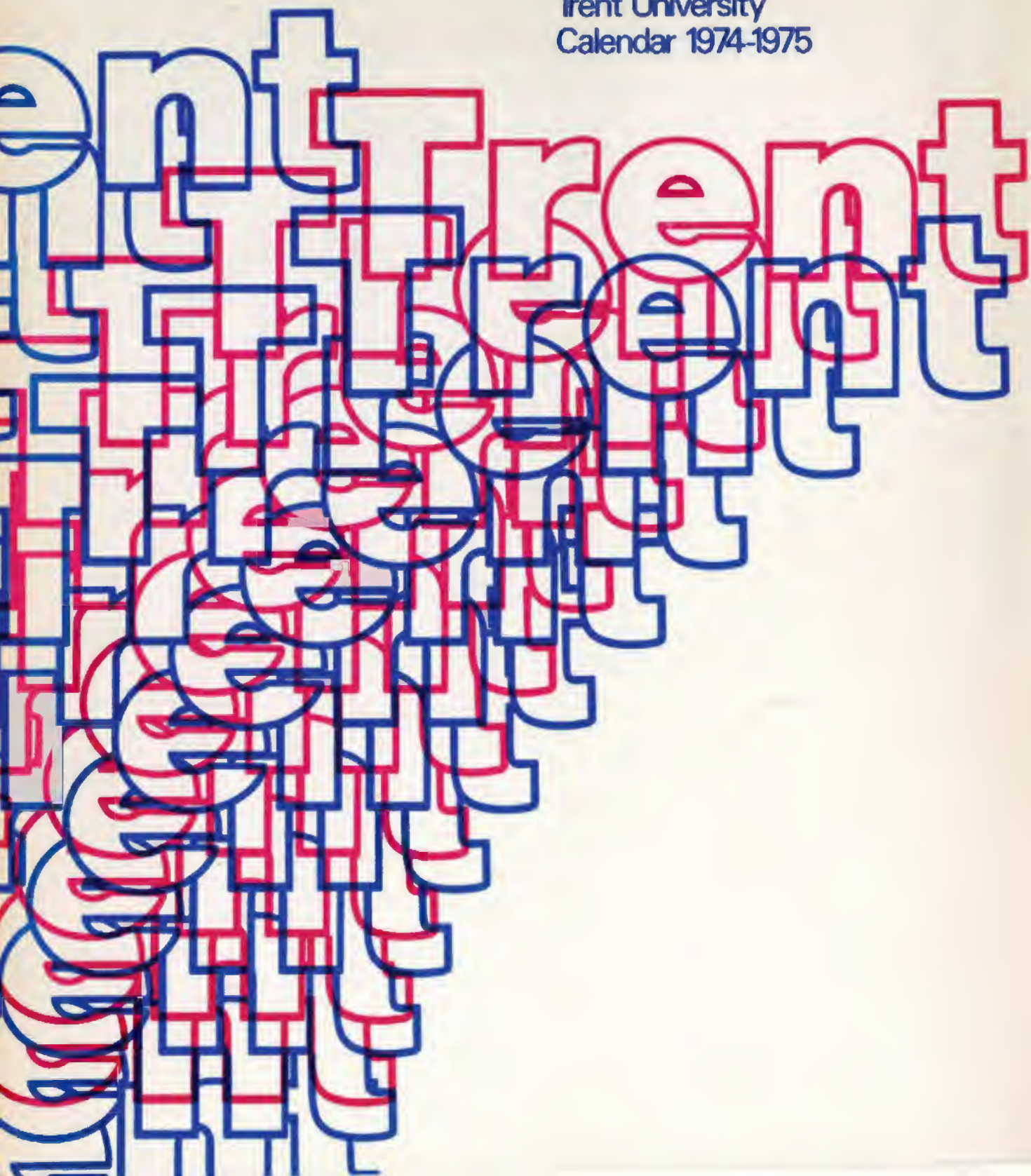


Trent University
Calendar 1974-1975





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Notice:
Changes in some areas including new
faculty appointments, courses,
regulations and fees may occur.

*The University reserves the right to make
such changes subsequent to publication
of the Calendar.*

Academic Staff

A

Adams, W.P. *Geography*
Aitken, G.D. *Hispanic Studies*
Alfred, L.C.R. *Physics*
Annett, R.G. *Chemistry*

B

Bagnani, G. *Classical Studies*
Bandyopadhyay, P. *Politics, Sociology*
Barker, J.C. *History*
Barrett, P.F. *Chemistry*
Baumgaertel, G. *German*
Beach, B.L. *English Literature, Psychology*
Berkowitz, M.S. *English Literature*
Berrill, M. *Biology*
Bews, J.P. *Classical Studies*
Boote, M.J. *Economics*
Boundas, C.V. *Philosophy*
Bowles, R.T. *Sociology*
Brown, S.A. *Chemistry*
Brunger, A.G. *Geography*
Burbidge, J.W. *Philosophy*

C

Caldicott, C.E.J. *French Studies*
Cameron, D.R. *Politics*
Carter, C. *Mathematics*
Carter, R.E. *Philosophy*
Castellano, M.J. *Native Studies*
Chakravartty, I.C. *Mathematics*
Chambers, R.D. *English Literature*
Chapman, I.D. *Chemistry*
Chua, B.H. *Sociology*
Cole, A.O.C. *History*
Conacher, A.J. *Geography*
Crowhurst, R. *Classical Studies*
Cumming, P.A. *Native Studies*
Currie, W. *Native Studies*
Curtis, D.C.A. *Economics*

D

Dellamora, R.J. *English Literature*
Doxey, M.P. *Politics*
Dray, W.H. *Philosophy*

E

Earnshaw, J.W. *Physics*
Eathorne, G.D. *English Literature*
Edwards, R.L. *Biology*
Ernest, C.H. *Psychology*

F

Fewster, J.C. *German*
Fisher, A.G. *English Literature*
Franklin, A.E. *French Studies*
Fry, M.G. *Philosophy*

G

Gallagher, S.F. *English Literature*
Gallop, D. *Philosophy*
Garrido, R.M. *Hispanic Studies*
Gilchrist, J. *History*
Glassco, D. *English Literature*
González-Martin, J.P. *Hispanic Studies*
Govier, T.R. *Philosophy*
Greene, C.M. *History*
Guinand, A.P. *Mathematics*

H

Hagar, F.A. *History*
Hagman, R.S. *Anthropology*
Hamilton, G.F. *Mathematics*
Harper, F.K. *French Studies, Hispanic Studies*
Harrison, P.D. *Anthropology*
Heeney, B. *History*
Helleiner, F.M. *Geography*
Helmuth, H.S. *Anthropology*

Henniger, J.P. *Mathematics*
Hillman, J. *Sociology*
Hodgins, B.W. *History*
Hook-Czarnocki, B.D. *Sociology*
Hubbell, L.J. *Anthropology*
Hunter, W.T. *Economics*
Huxley, C.V. *Sociology*

J

Johnson, C.D. *Biology*
Johnson, R.G. *Physics*
Johnston, G.A. *English Literature*
Johnston, R.B. *Anthropology*
Jones, E.H. *History*
Jones, R. *Biology*
Jury, J.W. *Physics*

K

Kane, S.H.W. *English Literature*
Kettler, D. *Politics*
Kinzl, K.H. *Classical Studies*
Kitchen, H.M. *Economics*
Krueger, A.A. *German*

L

LaPointe, J.-P. *French Studies*
Lasenby, D.C. *Biology*
LeDreff, J.M.A. *French Studies*
Leithwood, K.A. *Psychology*
Lewars, E.G. *Chemistry*
Lewis, A.D. *Sociology*
Lewis, P. J. *Economics*
Lockhart, R.A. *Sociology*
Lodge, J.I. *Physics*
Lowe, D.G. *Psychology*
Lyon, K.R.V. *Politics*

M

MacAdam, J.I. *Philosophy*
MacMillan, D.S. *History*
March, R.E. *Chemistry*
Marsh, J.S. *Geography*
Martin, J.D.P. *History*
Matthews, T.R. *Biology*
Maxwell, E.A. *Mathematics*
McCalla, D. *History*
McCaskill, D.N. *Native Studies*
McCue, H.A. *Native Studies*
McDonald, J.C. *Sociology*
McKay, R.J. *Native Studies*
McLachlan, I. *English Literature*
McMullen, W.A. *Philosophy*
Mellors, T. *French Studies*
Mitchell, O.S. *English Literature*
Montgomery, M. *Native Studies*
Morris, R.B. *Psychology*
Morrison, D.R. *Politics*
Morton, W.L. *History*
Murphy, T.N. *Mathematics*
Murthy, K.S.R. *Economics*

N

Nader, G.A. *Geography*
Neufeld, J.E. *English Literature*
Neville, W.F.W. *Politics*
Nighswander, J.E. *Biology*
Nind, T.E.W. *Mathematics*
Nutch, F. *Sociology*

O

Oldham, K.B. *Chemistry*
Orenstein, A. *Philosophy*
Orsten, E.M. *English Literature*

P

Paehlke, R.C. *Politics*
Page, D.F.R. *Classical Studies*
Page, R.J.D. *History*
Peterman, M. *English Literature*
Pitman, W.G. *History*
Powles, P.M. *Biology*

R

Rautenkranz, K.R. *Philosophy*
Reardon, B.P. *Classical Studies*
Reardon, J. *French Studies*
Rees, A.H. *Chemistry*
Reker, G.T. *Psychology*
Robertson, J.P.S. *Psychology*
Robson, S.T. *History*
Rooke, B.E. *English Literature*
Roper, G. *English Literature*
Royle, P. *French Studies*
Rubinoff, M.L. *Philosophy*

S

Sadleir, R.H. *English Literature*
Sandeman, I.M. *Biology*
Schreuder, D.M. *History*
Scott, E.D. *Physics*
Seeley, M.P. *Sociology*
Settingington, R.G. *Psychology*
Slavin, A.J. *Physics*
Smith, C.T. *Psychology*
Smith, D.L. *Hispanic Studies*
Smith, S.G.D. *Politics*
Sproule, C. *Psychology*
Stairs, R.A. *Chemistry*
Standen, S.D. *History*
Stanford, H.J. *Psychology*
Stewart, D.D. *German*
Symons, T.H.B. *History*
Syrett, J. *History*

T

Tamplin, M.J. *Anthropology*
Tate, C. *English Literature*
Taylor, C.H. *Geography*
Todd, E.M. *Anthropology*
Torok, C.H. *Anthropology, Native Studies*
Tracey, K.A. *Anthropology*
Treadwell, J.M. *English Literature*
Tromly, F.B. *English Literature*

V

Valverde, J.M. *Hispanic Studies*
Vastokas, J.M. *Anthropology*
Vastokas, R.K. *Anthropology*
Von Graeve, B.W. *Anthropology*

W

Wadland, J.H. *Canadian Studies*
Watson, P. *Psychology*
Wearing, J. *Politics*
Wernick, A.L. *Sociology*
White, R.F. *Sociology*
Wilson, A. *Canadian Studies, History*
Winny, J. *English Literature*
Winocur, G. *Psychology*
Wong, P.T.-P. *Psychology*
Worthington, A.G. *Psychology*

Y

Young, A.M. *Classical Studies*

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Vice-Chairmen

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F.R.C.P., F.A.P.H.A., LL.D., K.G.S.J.

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H.B. Style, B.A.

D.B. Sutherland, B.A., M.ED.

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Mrs. J.H. Whiteside, B.A.

D.M. Woods, B.A.

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H.A. Dyde, O.B.E., M.C., C.C., Q.C.,

B.A., LL.B., B.C.L., LL.D.



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I.D. Chapman, M.A.

Principal of

Catharine Parr Traill College

Mrs. Nancy Sherouse, B.A.

Master of Champlain College

Brian Heeney, D.PHIL.

Principal of Lady Eaton College

Mrs. Marjory Seeley, A.M.

Master of Otonabee College

R.E. Carter, A.B., B.D., M.A., PH.D.

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P.J. Lewis, B.A., C.A.

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University Engineer

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Director of Admissions

Gordon D. Pollock, M.A.

Director of Student Aid and Placement

Richard J. Bowman, B.A.

Director of Academic Records and Scheduling

A.P. Saxby, B.A.

Liaison Officer

A.G. Bird, B.A.

Office of Part-time Studies

Counsellor

Erika Pipher, B.A.

Assistant to the Director (Summer Session)

Paul Scott, B.A.

Assistant to the Director (Non-credit Courses)

R.J. Elford, B.A., MUS.G.PAED., A.MUS.

Office of the President

Assistant to the President

Paul Haefling, B.A.

Office of the Vice-President (Finance)

Assistant to the Vice-President (Finance)

J.M. Kennaley, B.A., C.A.

Conference Co-ordinator

Gary Ruona, B.A.

Office of the Comptroller

Assistant to the Comptroller

R.A. Watson, B.A., C.A.

Accountant

J.E. Moore

Supervisor of Personnel Services

Joanne Sandy

Office of the Engineer

Administrative Officer (Engineering)

G.A. Macdonald, B.A.

Operations Engineer

M.J. O'Brien, B.A.SC., P.ENG.

Planning and Development Engineer

George Ross, P.ENG.

Supervisor of Auxiliary Services

R.C. Johnston

Supervisor of Grounds

H.N. Darling

Purchasing Officer

A.F. Wells

Director of Information

J.G. English, B.A.

Director of Athletics

P.S.B. Wilson, B.A.

Director of the Health Service

Alice Martin, M.D.

Co-ordinator of Audio-Visual Services

Peter Tighe

Master Planning Architect

R.J. Thom, LL.D., F.R.A.I.C.

Manager of University Bookstore

William Jordan



General Information

History

Trent University stresses the importance of a liberal undergraduate education, which it looks upon as an education for the intelligent use of freedom in society. In line with this belief, students at Trent are encouraged to make their own decisions about courses, fields of concentration, extracurricular activities and the organization of their time. The University seeks to ensure, through a general emphasis on small group teaching, that each student has the opportunity to pursue intensively his fields of interest in close association with his academic seniors.

Trent is the smallest and one of the youngest universities of Ontario and it has no ambition to compete in size, but rather in excellence. Formally created as an independent university with full degree-granting powers by the Ontario Legislature in April 1963, the University has chosen to expand gradually in both its undergraduate and graduate programs.

Now in its eleventh teaching year, the University has close to 1,800 undergraduates in the full-time program, and about 750 in both the part-time winter and summer school programs. In addition, there are about a dozen Master's degree candidates in the three fields in which graduate studies are offered.

The University is the result of several years of planning by public-spirited citizens of Peterborough and, after the appointment of T.H.B. Symons as president-designate in 1961, by an Academic Planning Committee and a Campus Planning Committee. A nucleus of faculty members and senior administrative staff assumed full-time duties more than a year before the University opened its doors to its first students in September 1964. The University was elected to full membership in the Association of Universities and Colleges of Canada in 1968.

In 1967, the Honourable Leslie M. Frost, former Prime Minister of Ontario, was elected first Chancellor of the University, and he served until 1973. In that year, The Honourable Eugene Forsey was elected Chancellor.

Trent opened with two residential colleges and a teaching and administrative complex in the heart of Peterborough. The Canadian General Electric Company donated the core of what is now the 1,400-acre Nassau Campus on a rolling, wooded property located on both sides of the Otonabee River at the northern edge of the city. With the guidance of master planning architect Ronald J. Thom, a long-range plan was developed and a program of construction under-

taken which, while retaining the facilities developed in the city, provides for the main development of the University on the Nassau Campus. There are now three residential colleges, the main library, two science buildings and some of the administrative offices, along with recreational facilities, including a small art gallery, playing fields, track, tennis courts and temporary indoor athletic facilities, on the Nassau Campus.

Trent's master plan was devised on the twin foundations of the residential college and small group teaching. The collegiate system enhances the opportunity for both resident and non-resident students to benefit from a liberal education by taking advantage of the corporate life of the colleges. Quite apart from its social amenities, the college system is designed to offer genuine and continuing opportunities to cross those boundaries between different subjects and fields of study which so often hinder discussion in a university. Intellectual isolation can be avoided by bringing together, within each college, students and faculty from all disciplines.

Further opportunities are offered to each student to engage in the exploration of ideas with members of faculty and with fellow students through emphasis given to a variety of small teaching groups according to the requirements of the given discipline. Directed reading, the preparation of essays and other assignments and laboratory work in the sciences, form the basis for regular academic discussions in small groups in most courses.

Such small group meetings may consist of a seminar, of about fifteen members, or a tutorial, of about six or seven students. The assumption is that the University is a place of education and of learning, rather than of training and instruction, and therefore a special responsibility is placed on students to discipline their own work, to express themselves frequently and well, and to be open to constructive criticism by fellow students and teachers.

In the section on Courses of Study in this Calendar may be found the teaching method employed in each course. Each student will be provided with a course outline in September which may be a detailed week-by-week summary or only a more general outline of aims and teaching methods. It should state the frequency of class meetings, attendance requirements (if any) and the principles of the grading system which will be used. Generally speaking, lectures are less central in the teaching program at Trent than in many universities. In most courses lectures are offered, but, in the

senior years particularly, these are to guide, to clarify and to emphasize, rather than to cover prescribed material in detail. Lectures are normally open to anyone wishing to attend.

At registration each student is assigned to a supervisor of studies or counsellor who is responsible for advising on course selection and reviewing the student's progress at regular intervals. Students intending to return in the next academic year are counselled on their programs in the spring to enable them to pursue a program of summer reading. The tutorial and seminar system demands that a student distribute the work evenly throughout the academic year. To accommodate this need, the formal academic year is somewhat longer than at most Canadian universities, but there are significant pauses from formal class studies for reading and assimilation. To this end, the academic year is divided in a distinctive way, with a two-week recess in December, two weeks in March, and one-week reading and laboratory recesses in November and February. Reading programs, which do not preclude summer employment, but which are of considerable value to the student, are suggested for most courses, beyond first year, over the longer summer vacation. Such programs offer both an introduction and a background to work that will be undertaken in the following year.



Peter Robinson College

Master

I.D. Chapman, B.SC., M.A. (on leave 1974-75)

Acting Master

S.T. Robson, B.A., D.PHIL.

Senior Tutor Terence Mellors, M.A.

Senior Don A.A. Kruger, STAATSEXAMEN

Assistant to the Master Eileen Allemang

Peter Robinson College was named to honour the founder of Peterborough, who played a major part in the development of this region. In the pioneering tradition of its namesake, Peter Robinson College was the first college at Trent, opening in September 1964 as a men's college, and in 1967 pioneering a new development in the University by becoming the first coeducational college. The smallest college in the University, it looks forward to a continuing pioneer role.

The College tends to attract students who prefer to live in the city, either in residence or in lodgings and apartments near the College. All students of the College, therefore, have an opportunity to make the College a centre for academic, cultural and social events. As well, Peter Robinson students have emphasized the need for student involvement in the larger community – the city of Peterborough – and a Social Action Committee has evolved to initiate projects bridging the College and the city. Besides the formal teaching that takes place in the College, faculty and students are encouraged to meet in informal gatherings – in common rooms, in Dons' apartments, or in the dining room.

The members of the College prefer the informal atmosphere which is expressed by the adaptation of older houses for use as residences, teaching offices for the faculty, an 8,000-volume library, common rooms and dining room. The student-run snack bar and pub *The Jolly Hangman* is, for example, housed in converted garages. To provide new and alternative residence accommodation, the College in 1970 built a townhouse complex for 100 students. The townhouses provide an opportunity for students to make their own living arrangements within the College setting. Each student has a study bedroom and shares the kitchen, dining and living rooms with three or five other students. All students can use the squash court, sauna and other recreational facilities attached to this complex.

Catharine Parr Traill College

Principal

Mrs. Nancy Sherouse, B.A.

Senior Tutor J.W. Burbidge, M.A., B.D., PH.D.

Senior Don D.K. Glassco, B.A.

Assistant to the Principal Lynn Robertson, B.SC.

Catharine Parr Traill College, named in honour of a noted botanist, author and early settler in the Peterborough area, is the second of the town colleges. Formerly a women's college, Traill adopted a coeducational composition in September 1969.

Traill College, situated in the middle of Peterborough in a quiet residential area overlooking the city, enjoys all the advantages of a central town location. The College has a self-contained campus with a number of fine old homes remodelled for college purposes, as well as a modern residential and teaching wing. Each building accommodates resident students in study bedrooms while also offering academic and recreational facilities. Members of faculty, both single and married, act as resident dons. Many members of the academic staff who are Fellows of the College teach in tutorial offices and seminar rooms located in the Traill complex.

Non-resident student members are active contributors to all aspects of college life. They use the College dining room, *The Trend* (snack bar) and the various common rooms, all of which have proved to be excellent settings for stimulating, informal discussions and debates. On the recreational side, the College tennis court is very popular and the athletic and swimming facilities at the "Y" are in easy walking distance.

A new addition to the College is the Kerr House which accommodates the College library and some additional faculty offices. The library contains a very useful collection of reference books and basic texts, and the decor of the house provides a congenial atmosphere for studying.

Champlain College

Master

Brian Heeney, B.A., B.D., D.PHIL.

Senior Tutor Linda J. Hubbell, M.A., PH.D.

Senior Don I.C. Chakravartty, M.SC., PH.D.

Assistant to the Master Michel Trudeau, B.A.

Champlain College, the name of which honours the great explorer and founder of New France, lies on the banks of the Otonabee River near the heart of the Nassau campus. The College, founded in 1966 as a men's college with a membership of about 500 undergraduates and 45 faculty Fellows, became coeducational in 1972.

It has residential accommodation for 209, and dining, library, common room and recreation facilities for all its members. The College endeavours to provide for its members a rich and stimulating intellectual environment. Through the Champlain College Society it undertakes an active program each year of visits from leading scholars and public figures, who take part in classes and informal discussion with students of the College beyond the regular curriculum. There is, in addition, a growing program of other College activities of many kinds.

The College buildings, designed by the Master Architect of the University, Ronald J. Thom, are distinguished both in style and utility, and seek to enhance the experience of university life. The staircase plan in the two residential courts and the single study bedrooms give ample opportunity both for study and a full college life. Tutorial offices for many of the Fellows of the College, accommodation for both single and married dons, and seminar rooms are interspersed through the residential courts.

Lady Eaton College

Principal

Mrs. Marjory Seeley, B.A., A.M.

Senior Tutor Douglas McCalla, M.A., D.PHIL.

Senior Don Gordon Macdonald, B.A.

Assistant to the Principal Louis Taylor, B.A.

Lady Eaton College is the fourth college within the University and the second college on the Nassau site. Named in honour of Flora McCrea Eaton, a native of Omemee and one of the original sponsors of the University, the College provides a range of attractive facilities designed to encourage academic and social interchange for a community of 400 within the context of a residential teaching college.

The College buildings are divided into two separate residential and office wings and a central wing called the Commons Block. One residence wing is for women only. The other wing accommodates men in one section and women in another. There are 208 single study bedrooms and 15 double study bedrooms. On the first floor of the residence wings are the Principal's Lodge and six apartments for faculty and administrative staff of the University who live in the College as residential dons. There are also a number of offices for the Fellows of Lady Eaton College. Teaching takes place in these offices as well as in the College seminar rooms and in other university buildings.

Non-resident members of the College living at home or in lodgings in Peterborough are encouraged to participate in College activities and to use common rooms, music listening and music practice rooms, the art room, the sauna and exercise room, snack bar, browsing and reading rooms. The dining hall, a spacious and colourful room with small tables, has a warm and friendly atmosphere. Lady Eaton presented her library and a distinctive collection of Eskimo Art to the College. Though most of the books are in general circulation at Bata Library, some of the books and the Eskimo sculptures have a permanent home in the College.

The student government organizes and sponsors many College events in which students and faculty participate. One such event is the publication of the College newspaper *Eaton's Catalogue*. Fellows and students also serve on a number of joint committees which contribute to activities within the College. In addition, many members of the College join in university and community programs.

Otonabee College



Master

Robert E. Carter, A.B., B.D., M.A., PH.D.

Senior Tutor David F.R. Page, B.A.

Dons' Representative Peter J. Northrop

Assistant to the Master Margaret A. Jacobs, M.A.

The Indian name for the river flowing through the Nassau campus is Otonabee, which comes from the Ojibwa for fast water. As the name of Trent's fifth residential college it is both historically appropriate and presently descriptive. The academic facilities adjacent to the College house the Native Studies and Anthropology Departments, as well as offices and laboratories of most of the social science departments. The Trent Water Group, an association of scientists involved in water study and ecology, is also affiliated with Otonabee College, and the Science Complex forms the western entrance to the College.

The long residence building, one of the first in Canada specifically designed as a coeducational complex, fits comfortably into the cedar-lined ridge across the Otonabee River on the Nassau Campus. Each of the eight houses within the residence is a distinct unit joined by a pedestrian way which widens into communal areas, and links the residence, College offices, academic building, dining and common rooms, theatre, coffee shop and science complex through a meandering indoor walkway. Each house has student living rooms decorated with contemporary supergraphics, and kitchenettes. Most of the study-bedrooms face the river, library, and sister colleges and provide outstanding views of campus architecture. A few rooms look out onto the rolling farm and wooded land to the east. Cross-country skiing enthusiasts have easy access to the gentle slopes surrounding the College, and the University ski trail to the south. The "mountain", a freeform three-tiered carpeted platform, is designed as an informal meeting place for students. The Otonabee Theatre hosts the Town and Gown concert series, film festivals, and other major University, community and College events. The dining hall, common rooms, living rooms and study areas are equally available to residential and non-residential members.

As the newest college, Otonabee offers students and faculty varied opportunities to develop creative academic and social environments.

Acting University Librarian
Bruce Cossar, B.A., M.L.S.

Associate Librarian (Acting) John A. Wiseman, F.L.A.;
Canadiana Librarian and Associate Professor of Bibliography J.D.P. Martin, B.A., B.L.S.; *Reference Librarian* Margaret E. Hargrove, B.H.Sc., B.L.S.;
Assistant Reference Librarian (Government Documents) W.D.M. Robinson, B.A., M.L.S.; *Assistant Reference Librarian (Maps)* Anne L. Taylor, B.A., M.L.S.;
Serials Librarian Anna McCalla, B.A., B.L.S.;
Acquisitions Librarian David R. Weismiller, B.A., M.L.S.;
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Assistant Cataloguing Librarian Edythe Percy, B.A., M.L.S.;
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The University's Thomas J. Bata Library is adjacent to the University Court and is the focal point of the Nassau campus. Four storeys high, it has room for more than 370,000 volumes and 800 readers. Bright, spacious and air-conditioned, it provides ideal study and research facilities for all student and staff requirements. The building also houses the Audio-Visual Centre and a number of administrative and faculty offices.

The Library contains a collection of almost 215,000 volumes, 16,000 microforms, more than 2,400 serials subscriptions, over 40,000 maps and some 65,000 government documents. Approximately 22,000 volumes are added each year. Nearly all the material is available on open shelves and all members of the University are free to browse through the entire collection. Student use of the Library has been extensive, with one of the highest per capita circulation rates in Canada.

A number of special collections have been formed and, to support the University's interest in Canadian studies, the Library has concentrated on the acquisition of Canadiana. This development has been augmented by such gifts as the G.M. Douglas Arctic collection, the Shell Canada Fund for Canadian Literature, the Perkins Bull collection of prints, the Racey collection of newspaper cartoons, and the Floyd Chalmers collection of Canadian Explorations. The local collection of materials relating to the Trent Valley has been enriched by the acquisition of family and institutional papers and a wide variety of other archival materials.

The Trent University Library of Religion, incorporating the Bishop Webster Collection, provides source material for scholars in religion, philosophy, history and related subjects. Extensive support from the Robert Markon Foundation has been used to establish an art book collection. The Donner Foundation has provided substantial assistance in building up library resources in support of Native Studies, while the Ford Foundation is providing direct support for Canadian Studies. The Map section is a major resource for students in Geography and Anthropology.

The University Library is augmented by an extensive Inter-Library Loans network through which materials are borrowed from all parts of North America. The Inter-University Transit System, combining telex communications and a daily courier service, expedites the delivery of materials between university libraries of Ontario and Quebec.

Admission and Registration

Admission Requirements

1. Normal Requirements

In order to be eligible for admission to Trent University an applicant is required to achieve standing at a level acceptable to the University in a full Grade 13 program of studies or equivalent. Because of the diversity of programs offered in secondary schools in Ontario, a full program is defined as that which is deemed by the school principal satisfactory for the purpose of granting an Honours Graduation Diploma.

No minimum number of years taken to achieve this standing is specified. Applicants who have spent more than five years in secondary school may be required to present a higher level of achievement.

With the exception of some language programs there are no specified subject requirements for admission to Arts programs. Applicants to Science programs are advised to consult the Grade 13 requirements of individual disciplines as shown in the Courses of Study section.

In lieu of Ontario Grade 13 Music, standing in one of the following examinations of the Royal Conservatory of Music of Toronto or equivalent is accepted: 1) Grade 8 Practical with Grade 2 Theory; 2) Grade 4 Theory. If the R.C.M.T. or equivalent examinations are offered, candidates must have the required overall average for the course sought on the academic credits offered. R.C.M.T. or equivalent examination marks are not included in the calculation of the overall average.

2. Exceptions to the Normal Requirements

The University is prepared to consider other candidates, who, while failing to meet the regular requirements, can satisfy the University that they are likely to be successful in university work. Maturity and motivation will be taken into account. The Admissions Committee may require the candidate to present himself for an interview. Any candidate who wishes to apply for admission and who does not possess the normal admission requirements should write to the Director of Admissions outlining his academic qualifications, his experience and the grounds on which he bases his request for admission. Such candidates may be admitted outright or to probationary status for one academic session.

Applicants admitted on probation normally are eligible to enrol in a single course and are required to obtain a grade of C or higher. Successful completion of this course enables a student to enrol as a regular student. A student receiving a

grade of D is allowed to enrol in one further course and is required to obtain at least a grade of C. Upon completion of probationary status a student receives credit for the course or courses in which he was successful. If a student fails a probationary course or obtains D standing in both probationary courses, the Committee on Admissions will require him to withdraw from the University and an application for re-admission will not be accepted until the student has fulfilled the normal admission requirements.

Early application is most desirable in this case as applications will not normally be accepted later than eight weeks prior to the commencement of an academic session.

3. Equivalents to Ontario Grade 13

Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Saskatchewan – Grade 12

Newfoundland – First Year, Memorial University

Prince Edward Island – First Year, University of Prince Edward Island

Quebec – Completion of Year 1 of a CEGEP program or equivalent with high standing.



England and Wales, West Indies, East and West Africa, Hong Kong – General Certificate of Education (or University of Hong Kong Matriculation Certificate), with a) passes in at least five subjects, two of which must be at Advanced Level; or b) passes in four subjects of which three must be at Advanced Level; or School and Higher School Certificate. (Credits on the School Certificate, and subsidiary passes on the Higher School Certificate are equated with ordinary level passes on the General Certificate of Education; principal or main subject passes on the Higher School Certificate are equated with advanced level passes on the General Certificate of Education.)

Scotland – The Scottish Leaving Certificate.

USA – High School Graduation Diploma. Applicants are required to submit College Entrance Examination Board scores and a letter of reference from a high school teacher or counsellor.

Students from areas other than those listed above should submit full details and available certificates to the Director of Admissions for evaluation.

Possession of the minimum requirements does not in itself guarantee admission.

4. Special Requirements

- a) Candidates from areas where English is not a common language will be required to provide evidence of a knowledge of English sufficient to enable them to profit from their university studies.
- b) Candidates wishing to study Mathematics at the University should have Ontario Grade 13, or equivalent standing in that subject.
- c) Candidates who propose to proceed to another university for studies in Medicine or Dentistry should consult the calendar of the university in which they are interested, and this Calendar's section on Pre-Professional Studies for details about the entrance requirements for faculties of Medicine and Dentistry in Ontario.

5. Admission with Advanced Standing

The University will consider applications from students from other universities for admission with advanced standing. Applicants for advanced standing should consult the Academic Programs and Standings Required section of the Calendar. Applicants for advanced standing must arrange for the forwarding of official transcripts of their university record to the Director of Admissions of Trent University. Advanced standing will be assessed and the applicant informed of his advanced standings by the Committee on Admissions prior to the student's admission to the University. No requests for a re-evaluation of a student's transcripts will normally be accepted after this time.

6. Part-Time Credit Studies

Candidates considering a program of part-time credit studies should consult the Academic Programs and Standings Required section of this Calendar and the Part-time studies section.

7. Debarment

The University reserves the right to refuse admission to any candidate and to refuse re-admission if it becomes apparent that a student is not profiting from University studies. Applicants should also consult the Academic Programs and Standings Required section of the Calendar.

8. Application Fee

Applicants for admission to this University who are not residents of Canada or who have obtained standing in educational jurisdictions beyond Canada are required to pay a fee of \$10 upon filing an application.

Admission Procedures

Students from the Ontario school system should apply to Trent University on the forms developed by the Ontario University Application Centre. These forms are available through the secondary schools and should be completed according to accompanying instructions.

By agreement between the universities, candidates notified of acceptance by a university may not be required to make formal acceptance until June 13, 1975.

Candidates for admission from outside Ontario, or who are not currently in Grade 13 or are recent graduates, may obtain application forms from the Director of Admissions. Such candidates must submit Grade 13, or equivalent, certificates or certified copies of these, showing their standing in each subject.

Candidates for admission may be asked to attend an interview with the Admissions Committee. Each admitted candidate will receive a medical form from the University which should be completed, preferably by the candidate's regular physician, and sent to the University Health Service before registration. Each candidate for admission will be notified of the University's decision concerning his or her application as early as possible, within the limits of the inter-university agreements cited above.

Because all full-time students in the University are members of a college, every applicant to the University should complete a college application form which may be obtained from the Director of Admissions.

Registration

Entering students who have been offered and have accepted admission to the University will register in person during the Introductory Seminar. The College Admissions Committee will make every effort to meet the wishes of students for particular college affiliation but cannot guarantee to meet all requests.

Registration is complete when an undergraduate has been informed of his admission by the University, has met with the Head of his college, has paid at least the first instalment of his fees, has visited the Health Service, and after consultation with his supervisor of studies, is enrolled in an approved program of studies at the centralized course registration. During the Introductory Seminar, first-year students have the opportunity to sample first-year courses before selecting the five they will pursue. A fee of \$10 may be charged to those registering late.

Returning students are also required to place a \$50 deposit against residence fees before July 15 in order to guarantee a place.



Scholarships, Prizes and Student Awards

Scholarships

Trent University has a generous scholarship program designed to reflect its insistence on high standards and to reward and encourage its leading students.

Through the generosity of private donors, several scholarships have been endowed; these scholarships will be awarded to students entering the University and during the course of their studies.

All University scholarships may be held in conjunction with other scholarships awarded by external agencies when their conditions permit. No student applying for admission to the University after August 1 will normally be considered for a scholarship.

The University endeavours to guarantee all scholarship holders, including those from the Peterborough area, places in residence if they wish them.

Since all students with high standing will automatically be considered, no separate application for scholarships awarded by the University is necessary.



The Bata Scholarship

The scholarship, the gift of Thomas J. Bata one of the original honorary sponsors of the University and a member of the Board of Governors, is of the value of \$550 for one year.

Winifred Elizabeth Burton Scholarship

This scholarship of the value of \$1,000 is awarded annually to an outstanding student entering first or a higher year.

The Champlain Scholarships

Champlain Scholarships are available for students of exceptionally high academic achievement and promise, whether entering the University or in course. Each scholarship has an annual value of \$1,855 for students living in residence and of \$1,100 for non-residents, and will be renewed each year at full value so long as the holder's work is of high standard.

The Sylvia Cherney Scholarship

The Sylvia Cherney scholarship, the gift of Harry Cherney, and of Brian Cherney and Lawrence Cherney, is named in memory of Sylvia Cherney and is available to in-course students majoring in English Literature with the aim of encouraging promise and interest in the study of drama. The Cherney Scholarship is an annual award to meet tuition fees.

The Roscoe F. Downey Scholarships

Two scholarships, the gift of the late Roscoe F. Downey of Peterborough, each of the value of \$100 for one year, are available to entering students, one from Peterborough County and one from Victoria County.

Faculty Scholarship

A scholarship, the gift of a member of the founding academic staff of Trent University, of the value of \$650 for one year.

The Reginald R. Faryon Scholarships

These scholarships, the gift of the Quaker Oats Company of Canada, are named in memory of the late Reginald R. Faryon an active member of the founding board of Trent University and a former president of the company. Each Faryon Scholarship is of the value of \$400 for one year.

The Rufus Gibbs Scholarships

These scholarships, the gift of the late Rufus C. Gibbs, each of the value of \$500 for one year, are available for annual award to students in all years, on the basis of academic standing, all-round achievement and character.

The Joseph Ernest Goodhead Scholarship

This scholarship, the gift of an anonymous donor, of the value of \$100, is awarded for excellence in the study of Biology.

The Howson Scholarship

The George Henry and Jane Laing Howson Scholarship is the gift of the late Miss A. Howson and Mrs. M.H. Simpson, and is named in memory of their late parents. Of the value of \$350 for one year, the scholarship is available to a student with high academic standing who is proceeding to the degree of Bachelor of Arts.

The Francis Dean Kerr Scholarship

The scholarship, the gift of the late Mrs. F.D. Kerr of Peterborough, is named in honour of her late husband who was one of the original honorary sponsors of the University, and is of the value of \$550 for one year.

The William Allan Newell Scholarship

The scholarship, the gift of Judson Newell of Prescott, is named in honour of his father, the chairman and founder of the Newell Manufacturing Co. Ltd. Of the value of \$550 for one year, it is available to an entering student proceeding to the degree of Bachelor of Science.

The Peterborough Examiner Scholarship

The scholarship, the gift of Peterborough Examiner Co. Ltd., of the value of \$1,200 for one year, is available to an outstanding student entering first or a higher year and living in residence.

The Katherine E. Scott Scholarships

Two scholarships, the gift of Dr. C.M. Scott of Peterborough, are named in honour of his late wife. Each scholarship is of the value of \$550 for one year.

The H. Clare Sootheran Scholarship

The gift of the late H. Clare Sootheran, a citizen of Peterborough, this \$250 scholarship is awarded for excellence in the Faculty of Arts.

The Trent University Scholarships

Several Trent University Scholarships are available to students of high academic achievement entering first or higher years in the University.

Externally awarded scholarships

A number of scholarships (and bursaries) are awarded by bodies outside the University. A number of corporations, for instance, have special programs for dependents of their employees. Students should consult their guidance counsellors concerning these awards.



Prizes

Ambassador of Switzerland Prizes in French and German

The prizes, the gift of the Ambassador of Switzerland, are awarded to the undergraduates who have obtained the highest standings in the French and German languages in their graduating year.

The Ruth Benedict Prize

This prize, in honour of the first major female anthropologist, Ruth Fulton Benedict (1887-1948), is awarded to a student entering Honours Anthropology with high academic standing.

Department of Biology Prizes

Awarded to students who show excellence in the study of Biology in first or higher years.

Canadian Association of Geographers Undergraduate Award

Presented by the Canadian Association of Geographers to the Honours Geography student with the highest academic standing in specific courses.

Chemical Institute of Canada (Peterborough Section) Prize

Awarded to a first-year student who has shown excellence in the field of General Chemistry.

Consul General's Prizes in French

These prizes, the gift of the Consul General of France, are awarded to the leading undergraduates in French studies within the University.

Embassy of Spain Prize in Hispanic Studies

Awarded to an outstanding student in upper years majoring in Spanish.

Department of English Literature Prize

This prize, the gift of the Department of English Literature, is awarded to the best student entering the Honours Program in English Literature.

The Honourable Leslie Frost Prize

This prize, the gift of Hon. Leslie M. Frost, P.C., Prime Minister of Ontario from 1949 to 1962 and Member of the Legislative Assembly of Ontario for Victoria from 1937 to 1963, is awarded to the leading undergraduate in the first-year course in History.

Gadfly Prize

This prize, the gift of the academic staff in Philosophy, is available for award to the leading undergraduate in Philosophy entering his or her graduating year. The prize commemorates Socrates' description of himself as one who rouses and reproves the society in which he lives just as a gadfly awakens a sluggish horse.

Governor-General's Medal

Awarded to the fourth-year student with the highest overall standing on graduation.

Harvey G. Greene Prizes in Native Studies

These prizes, in memory of Harvey G. Greene of Peterborough, are awarded to outstanding students in Native Studies.

The Honourable George S. Henry Prize

This prize, in memory of Hon. George S. Henry, Prime Minister of Ontario from 1930 to 1934, and Member of the Legislative Assembly of Ontario for East York from 1913 to 1943, is awarded to the leading undergraduate in the First-Year course in Politics.

History Department Prize

Awarded to the second- or third-year student writing the best essay.

David N. McIntyre Conservation Award

Presented by the Otonabee Region Conservation Authority to the outstanding Geography student who has demonstrated an interest in Conservation.

Midwives' Prize

This prize is the gift of the three members of the Universities Liaison Committee who assisted at the birth of Trent University: Professor J.M. Blackburn, then of Queen's University; Dean Frank Stiling, of the University of Western Ontario; and the late Dr. M.St.A. Woodside, former vice-president of the University of Toronto. Professor Blackburn, Dean Stiling and Dr. Woodside were named by the heads of their universities to act as a liaison committee between these three universities and the Founding Board of Trent University in its early years. The prize is awarded to the undergraduate with the highest overall standing in the first year.

Peterborough Professional Engineers Wives' Association Prize

This prize, a gift of the association, is awarded to an undergraduate who shows excellence in the second-year courses in Physics or Chemistry.

Department of Physics Prize

This prize, a gift of the Department of Physics, is awarded to the student achieving the highest academic standing in the first-year Physics course.

Department of Psychology Prizes

These prizes, a gift of the Department of Psychology, are awarded to outstanding students in Psychology.

Victor T. Ridley Memorial Prize

This prize, the gift of Mrs. F. Millard in memory of the late Victor T. Ridley of Peterborough, is awarded to the leading undergraduate in first-year Mathematics.

The Honourable Sidney Smith Prize

This prize is named in honour of Hon. Sidney Smith, Member of the Legislative Assembly of the United Province of Canada for the West Riding of Northumberland from 1854 to 1861, Postmaster General of the United Province of Canada from 1858 to 1862, and elected Member of the Legislative Council for the United Province of Canada for the Trent Division from 1861 to 1863. It is the gift of Hon. S. Bruce Smith, Chief Justice of Alberta, and of

Muriel Turner and H.G.H. Smith, Q.C., of Winnipeg, and is awarded annually to the leading undergraduate majoring in Politics and History in the second year.

President Symons Medals

The President's Medals were established in 1972 in honour of T.H.B. Symons, the founding president of Trent University. These medals are awarded to students in third and fourth year who achieve high overall standing on graduation.

Alan Wilson Prize in History

Awarded to the Honours History student achieving the highest record in fourth year.



Bursaries

Each year a sum of money is available for bursary assistance to students who are currently enrolled at Trent University. Information is available from the Director of Student Aid.

A.T.A. Trucking Industry Educational Foundation Bursary Fund

Established by the Automotive Transport Association of Ontario. These bursaries may be awarded to deserving students who would be unable to continue their studies without financial assistance.

Beaver Foods Bursary Fund

Established by Beaver Foods Limited to be awarded to deserving students in any undergraduate year.

Philip Black Award

These awards are the gift of Isadore and Morris Black of Peterborough in memory of their father, Philip Black, the first Rabbi in Peterborough. Value: \$50.

Reginald R. Faryon Bursary

The award is the gift of the Peterborough Branch of B'nai B'rith in memory of Reginald R. Faryon. Value: \$50.

Peterborough Chapter of Hadassah Bursary

The award is the gift of the Peterborough Chapter of Hadassah. Value: \$100.

Agneta Holt Award

The award is the gift of the University Women's Club of Peterborough as a memorial to the late Mrs. Agneta Holt.

IBM Canada Bursary Program

Established by IBM of Canada, these bursaries may be awarded to deserving undergraduates in any year of an Arts or Science program.

'In-course' Bursaries of the Atkinson Charitable Foundation

These bursaries may be awarded to meritorious Ontario undergraduates in second and higher years. Information is available from the Director of Student Aid.

The Interprovincial Pipe Line Company Bursary Fund

Established by the Interprovincial Pipe Line Company. These bursaries may be awarded to deserving undergraduates in second or higher years.

Native Studies Donner Bursary Fund

These bursaries are available for students of native ancestry who do not qualify for educational assistance from the Department of Indian Affairs and Northern Development. Native students who can establish financial need and have been admitted to the Faculty of Arts and Science at Trent University are encouraged to apply.

Part-time Students' Bursary Fund

A number of bursaries are available to part-time students undertaking study at Trent on a continuing basis.

J. Paul Scott Jr. Award

Established in memory of J. Paul Scott Jr., to be awarded to a deserving student entering Honours Psychology.

Ontario Student Awards

The Province of Ontario and the Government of Canada provide a program of grants and loans to university students through the Province of Ontario Student Awards Program. This program is not based on academic standing but is related to the established need of the student in the individual year of the university. Awards are made by the Ministry of Colleges and Universities, after assessment of need, and are divided between provincial grants and Canada Student Loans according to a formula established by the government. Students may obtain details of this program through school officials or from the Director of Student Aid, Trent University, Peterborough.

Financial Assistance for Students from Outside Ontario

Students from outside Ontario who need financial assistance in university are strongly urged to consult with officials in their schools about available Provincial loan and bursary assistance. Students from United States are urged to consult with the State financial aid authorities. The University has limited bursary funds to assist needy students not eligible for government assistance.

Fees

Academic fees

The total fee for full-time undergraduates for the academic year is \$655. This figure includes registration and tuition fees, and incidental fees of \$55 for health services, athletics and student government.

Special Students

Special students taking three-and-one-half or more courses are considered to be full-time students and must pay full tuition fees and appropriate college fees.

Non-resident Fee

Non-residents are encouraged to enter fully into the life of their colleges, and accordingly to make considerable use of college facilities. A non-resident fee of \$85, including \$10 to be applied against meals taken in college, is payable by all full-time non-resident students in addition to the academic fee. This fee is payable at the same time as academic fees; if paid in instalments, the two instalments are \$50 and \$35.

Residence Fees

The fees for room and board for the academic year, are \$1,200 for a single room and \$1,130 for a double room.

Academic Fees for Part-time Students

Part-time students, i.e., students taking three or fewer courses during the regular session, pay \$135 per full course, \$67.50 per half course, or \$135 for two half courses.

These fees include registration and tuition fees, and incidental fees at the rate of \$15 per full course.

These fees are due on or before August 31 and may be paid in two instalments, in which case, an additional charge of \$5 is made. For those who request college affiliation, a further fee of \$10 is charged.

Certain further fees may be charged in appropriate circumstances.

All fees are subject to change.

Payment of Fees

Fee payments should be mailed to the Office of the Comptroller, and are due and payable on or before August 31. If paid in instalments, the first instalment must be paid on or before August 31, and the second instalment on or before January 31. An additional charge is made when fees are paid in instalments.

Charges may be imposed on any accounts remaining unpaid after the end of the month in which they became payable.

Special arrangements may be made for students whose fees are paid by funds from scholarships, awards, grants or other forms of assistance.

The academic record of a student who has any accounts outstanding at the end of the academic sessions will not be released by the University.

All cheques and other remittances should be made payable to Trent University.

Fee Refunds

Refunds of any fees paid are made only in special cases and on the written authorization of a student's College Head. Any refunds granted will be subject to a refund charge. Incidental fees are not refundable.

Summer Session Fees

Fees for students taking courses in the Summer Session will be \$135 for each full course taken. Information on the Summer Session is contained in a separate calendar obtainable from the Director of Part-time Studies.

Books

Costs of required books and materials vary according to individual course requirements, with Science courses tending to be more expensive than Arts courses. Students should be prepared to spend between \$25 and \$50 per course for books and materials. Special fees may be required in some courses involving laboratory or field work.



Academic Programs and Standings Required

The Faculty of Arts and Science of the University offers at the undergraduate level both an Ordinary program leading to the degrees of Bachelor of Arts and Bachelor of Science upon successful completion of 15 courses, and an Honours program leading to these same degrees with Honours upon successful completion of an additional four- or five-course program. The degree programs are designed to be flexible so that the particular needs and interests of individual students may be satisfied. Each student chooses his program in consultation with his supervisor of studies or counsellor, who seeks to ensure that the program is coherent.

Assessment of Performance

Work done during term and in the reading periods, any mid-year or other examinations, and any final examinations will be considered in determining an undergraduate's final standing in each course.

At the beginning of each year students will be informed of the method of assessment of achievement in each course. Students' attention will also be directed to the provisional syllabus at the start of each year. This syllabus may be subject to some modification as the work of the year progresses.

Residential Reading and Laboratory Weeks

During residential reading and laboratory weeks no formal class meetings or examinations are held, but students continue their studies at the University, under the guidance of their tutors. The library and laboratories are open to students during these periods. The value of the academic program to the student depends to a considerable extent on reading and study done during the vacations.

Grades

The grading system of Trent University was amended by the addition of a B+ standing to the previous spectrum of grades retroactive to September 1972. There are now five passing grades: A, B+, B, C, D; and one failing grade, F. Undergraduates are informed of their standing in each course. There are no supplemental examinations.

Aegrotat Standing

Petitions for special consideration because of sickness or misfortune at any time during the academic session should be sent to the Registrar as soon as possible, together with medical certificates or other evidence. The University may grant aegrotat standing, or permission to write special examinations, but because aegrotat standing must be based on the achievements of the student throughout the whole of the academic year, it is not appropriate to request such standing as a result of prolonged illness. (See also Withdrawal section below.)

Withdrawal

With the exception of half courses completed before Christmas, any course confirmed by November 1 may be dropped prior to March 1 without academic penalty. A student dropping a course on March 1 or thereafter shall be deemed to have failed that course.

Students withdrawing from a half course, conducted during half of the year, are advised to consult the regulations governing half courses as outlined under Courses of Study.

A student withdrawing either from a course or from the University should consult his supervisor of studies and his College head (or Part-time Studies Office if applicable) and must notify the College head (or Part-time Studies Office) in writing.

If written notice of withdrawal is not received the student may be charged with an academic failure and is responsible for financial obligations.

If a student is ill for a period after March 1 and sends the Registrar medical certification or other appropriate evidence, he may be granted permission to withdraw without penalty.

Probation

A student whose performance has been unsatisfactory may be allowed to continue his studies on probation. The Committee on Academic Standing will review the progress of students on probation and may recommend that probation be lifted or if no improvement occurs such students may be rusticated for one year.

Rustication and Debarment

The case of any student who has failed two courses will be automatically reviewed by the Academic Standing Committee; and that student's case will be reviewed following each subsequent failure. The Committee may decide upon rustication or debarment, subject always to the student's right of appeal to the Special Appeals Committee.

Rustication

In general, rustication, i.e., refusal of permission to enrol for a year, will result from any one of the following circumstances (among others):

- three failures in the first five courses, the second five courses, or the third five courses attempted;
- five failures in total;
- failure to achieve at least one grade of C or better in a sequence of five courses attempted.

Debarment

Two further failures on return from such a year of rustication will lead to debarment from the University, and in this case the student will not be eligible for re-admission for a minimum of three years.

In interpreting these rules, a transfer student's record at the other university will be taken into account.

Transfer of Credits

Students are normally required to complete half of their degree program at Trent University. Students who transfer from another university will be granted advanced standing on an individual course basis for courses which are directly comparable to courses offered at Trent. Unassigned credit up to a maximum of five courses may be granted for courses which are equal in standard but not comparable in content to courses offered at this University. Students transferring credits will be governed by promotion regulations as outlined in this Calendar under the Ordinary Program section.

Study at Other Universities

A student may be permitted by the individual departments, and/or the Undergraduate Studies Committee, to take courses elsewhere for credit toward a degree program. A letter of permission to undertake such courses must be obtained from the Registrar's Office before taking the course. Retroactive approval will not be granted. There is a \$10 per course fee normally charged for such letters of permission. Students wishing to undertake summer courses at another university on a letter of permission are advised to undertake only one and will not be permitted to attempt more than two full courses during the Summer Vacation and Reading Period.

The maximum number of whole courses for which credit may normally be given is five in either an Ordinary or Honours program. It should be noted that the last five courses offered by a candidate for a degree are normally to be completed at Trent. A registration and supervision fee of \$50 will be charged students granted permission to attempt five course credits from another university.

Study at Foreign Universities

Students, particularly in modern languages, wishing to take a full year of study at a foreign university or in French Canada must have the plan of study approved by the department(s) of major concentration before a leave will be granted. Courses in such programs should be roughly comparable to those which would have been taken had the year been done at Trent.

Normally, this year of study abroad should constitute the third year of an Honours program. Under special circumstances, and at the recommendation of the department(s) concerned, a student may be permitted to undertake the fourth or Honours year abroad, and so qualify for a Trent Honours degree.

A registration and supervision fee of \$50 will be charged students granted leave to study abroad for one year for credit towards a Trent degree.

Appeals

A student may appeal the assessment of term assignments and tests during the course of the year. Such appeals should be directed to the course instructor and subsequently, if necessary, to the Chairman of the Department.

Final grades in individual courses will be reviewed by the department concerned and submitted to the Registrar, countersigned by the Department Chairman. All failing grades will receive special scrutiny by a departmental committee.

Before final release, the grades of each undergraduate will be reviewed by a committee of Senate. Every student has the right to appeal final standing in any course, regardless of grade, but in considering such appeals grades given for term work in the course of the year will not normally be reassessed. All appeals should be made in writing to the Registrar before July 15, or September 30 in the case of summer session. A fee of \$15 will be charged for the handling of an appeal, refundable if the grade is raised.

Students enrolled at Trent University who believe that the application of University regulations has worked undue hardship on them should first appeal to the Chairman of the department or committee responsible for the adverse ruling; in many instances the Chairman may see fit to refer the appeal to the Undergraduate Studies Committee or the Committee on Academic Standing.

If, after exhausting all other areas of appeal, students still feel that undue hardship has been worked on them they may appeal to the Special Appeals Committee. Such appeals should be made in writing to the Chairman of the Special Appeals Committee, normally before July 15 or September 30 in the case of summer session. All decisions of the Special Appeals Committee are final and take effect when issued.

Students wishing to take a program not outlined in this Calendar may, after consultation with their supervisor of studies or counsellor, make a petition to the Chairman of the Undergraduate Studies Committee.

Course Credit

Students retain credit for every course and every half course successfully completed. Two half courses count as the equivalent of one full course, and the student's grade in a half course will be announced as soon as it is known. The transcript will show each course and half course and the grade achieved.

Course Sequence and Load

The normal load in a regular session is considered to be the equivalent of five full courses for credit, and students will only be permitted to take additional courses upon successful petition to the Undergraduate Studies Committee. Such petitions must be endorsed by the supervisor of studies and presented to the Senior Tutor before they will be considered by the Undergraduate Studies Committee. It is expected that most students will take five *One-hundred* series courses, followed by five *Two-hundred* series and then by five *Three-hundred* series courses.

Under the Courses of Study section, it will be found that several departments permit freshman students to take two *One-hundred* series courses or a *One-hundred* and a *Two-hundred* or *Three-hundred* series course in one discipline.

Students availing themselves of this opportunity may do so in one department only and thus are required to include courses from four different disciplines among their regular five-course selection.

If it is desired to take senior courses earlier in the sequence the student should consult tutors from the departments involved to ensure departmental permission and that no problem will arise concerning prerequisite status.

Students are permitted to register in a maximum of two courses (for credit) in any particular summer session, but it is advised that not more than one such course should be attempted.

Any student who wishes to enrol in six regular courses and two summer school courses in the same year whether the summer session immediately precedes or follows the winter session, is required to apply, through his supervisor, to the Undergraduate Studies Committee. The application must be accompanied by a supporting statement from the Chairman of the department in which the student is majoring or, in the case of a freshman student, by the Chairman of the Committee on Admissions.

Program Changes

Course changes must be made on a form available from the supervisor of studies, or in the case of part-time students from the Part-time Studies Office.

A student wishing to change a course must have his form initialled by the instructor of the course which is being dropped, then by the instructor of the course being added and then endorsed by the supervisor of studies. Students wishing to change major programs, or to enter the general degree program, must do so not later than the Friday before Thanksgiving. Entry into a general degree program must receive approval from the Undergraduate Studies Committee.

A student wishing to drop a course must use the same form and have it initialled by the instructor of the course which is being dropped and endorsed by the supervisor of studies.

The student is responsible for making sure that all copies of the change form are received at the Registrar's Office in accord with the following deadlines. Both additions and changes of full or a half courses after the Friday before Thanksgiving are subject to a fee of \$10. No full or a half course additions or changes are permitted after November 1. Similarly, November 1 is the last date for withdrawal from a half courses without academic penalty. No b half course additions or changes are permitted after the third week of the second term. February 28 is the last date for withdrawing from full and b half courses without academic penalty.

If, as a result of program changes, a student changes his status from full-time to part-time or vice versa, the College Head and Part-time Studies Office must be notified in writing.

Ordinary Program

An Ordinary Degree is awarded upon the successful completion of fifteen courses, or the equivalent where special arrangements have been approved, subject to qualifications a), b) and c) below:

a) Of the fifteen courses counted toward the Ordinary Degree not more than seven may be *One-hundred* series courses, and at least four full courses in the *Three-hundred* series (or equivalent) must be included. Moreover, no student may count, for credit toward the Ordinary Degree, more than eight of the courses offered in any one subject.

b) For an Ordinary Degree, a student must obtain a minimum of C standing in at least twelve of the fifteen passed courses and a minimum of C in at least seven *Two-hundred* or *Three-hundred* series courses. A course may be repeated (for credit) only if the grade on the preceding attempt was either D or F;

c) Of the minimum number of courses required for a major, not more than one with a D standing may be accepted.

Undergraduates may choose to pursue a single-major, a joint-major, or a general degree program.

Single-Major Program

This program is designed for the student who wishes a broad education, with concentrated work in a single subject to provide a focal point of study. A student is not normally permitted to major in a particular subject, unless he has received credit, with a C grade or better, in the *One-hundred* series course of that subject. Precise requirements for a major depend on departmental recommendations and regulations, but in no case will the total number of courses for credit in the subject of the major be less than five or greater than eight. Students wishing to undertake a single-major should consult their tutors in the discipline concerned.

Joint-Major Program

This program is designed for students wishing to take a fairly specialized education in two subjects. A student is not normally permitted to enrol in a joint-major program, unless he has received credit, with a C standing or better, in the *One-hundred* series course in each of the disciplines concerned. Precise requirements for a joint-major depend on departmental recommendations and regulations, but in no case will the total number of courses for credit in each of the subjects of the joint-major be fewer than five or more than six.

Students wishing to undertake a joint-major program should consult their supervisors as well as their tutors in the two disciplines concerned.

General Degree Program

This program is designed for students wishing to take a broad range of courses, but without specialization in any

particular discipline. Enrolment in such a program normally takes place after completion of the first five courses for credit.

Students considering the general degree programs must consult their supervisors, as well as the tutors from the disciplines concerned, to ensure that the program is cohesive, and also that prerequisites for individual courses have been met. All such programs must be submitted to the Undergraduate Studies Committee for approval not later than the Friday before Thanksgiving.

Bachelor of Science in the Ordinary Program

Students successfully completing single or joint majors in Biology, Chemistry, Mathematics or Physics will automatically qualify for a Bachelor of Science degree.

Students with joint majors involving only one of these four or with single or joint majors in Anthropology, Economics, Geography or Psychology may petition to receive a Bachelor of Science degree. This petition will be made on the form for Application for Graduation to the Undergraduate Studies Committee, which will consult with the department(s) concerned. Normally a single major in Anthropology, Economics, Geography or Psychology, without at least half of the courses outside the major being in one of the other disciplines listed, or a joint-major which includes any discipline not listed above will be granted a Bachelor of Arts degree.

Honours Program

Honours-year programs, normally involving a single academic year of integrated study, are available to qualified students on completion of the fifteen-course Ordinary Degree program. The year may consist of a single-major, joint-major, or general degree Honours program.

Single-Major Honours Program

Single-major Honours programs are offered in Anthropology, Biology, Chemistry, Classical Studies, Economics, English Literature, French Studies, Geography, German, Hispanic Studies, History, Mathematics, Philosophy, Physics, Politics, Psychology and Sociology.

The structure of, and the individual courses to be taken in, a single-major Honours year are established by the department concerned (under the overall direction of the Academic Development Committee). The department recommends to Senate the awarding or withholding of the Honours degree at the close of the Honours year.

Students wishing to undertake a single-major Honours program should consult their supervisors and the chairman of the department concerned before making application for admission to the Undergraduate Studies Committee.

Joint-Major Honours Program

Joint-major Honours programs are offered by all departments offering a single-major Honours program.

The structure of, and the individual courses to be taken in, a joint-major Honours year are established by the departments concerned (under the overall direction of the Academic Development Committee). The departments concerned recommend to Senate the awarding or withholding of the Honours degree at the close of the Honours year.

Students wishing to undertake a joint-major Honours program should consult their supervisors or counsellor, and the chairmen of the departments concerned before making application for admission to the Undergraduate Studies Committee.

General Degree Program

Students considering a general degree Honours program should prepare a short statement of the work they hope to carry out during the program. This plan should be discussed with the supervisor or counsellor, and then with the chairmen of the departments concerned. If agreement is reached on the program, a special advisory committee will be established to co-ordinate the program and to advise the student during his Honours year. This committee will make recommendation to the Senate for the awarding or withholding of the Honours degree at the close of the Honours year.

Normally a student taking a general degree Honours program will be expected to complete four or five courses, at least three of which would be *Four-hundred* series courses.

Bachelor of Science in the Honours Program

Students successfully completing a single- or joint-Honours program in Biology, Chemistry, Mathematics, Physics or Psychology, or a joint-major including one of those subjects and one of Anthropology, Economics or Geography, will automatically qualify for a Bachelor of Science degree in the Honours program.

Students with joint-Honours involving only one of the above subjects, or with single- or joint-Honours in Anthropology, Economics or Geography, may petition to receive a Bachelor of Science degree. This petition will be made on the form for Application for Graduation to the Undergraduate Studies Committee, which will consult with the department(s) concerned.

Procedures for Entry to and Completion of Honours Year

Application and Admission to Honours

1. Application to enter the Honours program should normally be made during the winter term of the academic year in which the student expects to qualify for an Ordinary degree.

2. Application shall be made after consultation with the supervisor of studies or counsellor and on a form available from the department chairmen, and a tentative program should be worked out and recorded at that time.

3. There is no automatic admission to the Honours program; the decision rests with the individual departments, or with the designated advisory committee in the case of a general

Honours program. However, a student who does not achieve B standing or better in at least five *Two-hundred* or *Three-hundred* series courses, and in at least eight courses altogether during the Ordinary program, will not normally be admitted to an Honours program.

4. Acceptance in the Honours program is not final until approved by the department(s) or by the designated advisory committee in the case of a general Honours program, after completion of qualification for an Ordinary degree. Departmental or advisory committee approval is subject to confirmation by the Undergraduate Studies Committee.

5. Admission to the Honours program is not complete until the department(s) of the major subject(s), or the designated advisory committee in the case of a general Honours program, have endorsed the program selected by the candidate. The program must be worked out in all details before Thanksgiving Day of the year in question. Alterations in an approved program require the endorsement of the departmental chairmen and of the supervisor of studies or Part-time student counsellor.

6. The Honours year is normally one year of integrated studies. Students wishing to undertake an Honours program on a part-time basis should consult the chairman of the department concerned, or the designated advisory committee in the case of a general Honours program, to establish details of the program. Ratification of such a program by the Undergraduate Studies Committee is required.

Academic Standings Required for an Honours Degree

1. Upon completion of the Honours year program, the department(s) or the designated advisory committee in the case of a general Honours program, will recommend to the Committee on Academic Standing the granting, deferring or withholding of an Honours degree.

2. An Honours year may not be repeated.

3. A student may not repeat an individual Honours course, except by permission of the department(s) concerned or of the designated advisory committee of a student in a general Honours program.

4. All courses attempted in an Honours program will be entered on the student's transcript.

5. The description of the degree on the transcript granted a student who is unsuccessful in the attempt at an Honours year will be the same as that which would have been made at the time the student qualified for an Ordinary degree (with later date).

Explanation of Course Identification

In 1970, due to the growth in number of course offerings, along with the introduction of more half courses, Trent University had to establish a new system of course numbering, and the two-digit numbers were replaced with three-digit identifications.

Generally, the first digit indicates the year in which the course is normally taken, and the second digit usually indicates an area of study within a discipline.

Half Course Requirements

Half courses are indicated by the suffix *a*, *b* or *c*;

a) indicating a half course taught in the Autumn Term.

b) indicating a half course taught in the Winter-Spring Terms.

c) indicating a half course taught throughout the year.

Every course attempted will be entered in the transcript and, where successful, will be given one-and-a-half credits (full courses equal three credits). Any two half courses equal one full course for credit purposes.

Students attempting a half course with suffix *a* will write a final examination, if required, on the Saturday concluding the Autumn Term and will be informed of the grade achieved not later than the first day of the Winter Term. Students attempting more than one half course with suffix *a* are therefore warned that they may face a heavy examination load at the conclusion of the courses.

Students wishing to alter *a* and *b* half courses must do so in accord with the deadlines outlined under Program Changes in section on Academic Programs.

Students withdrawing before November 1 from a half course which is conducted in the autumn will suffer no academic penalty. Students withdrawing from a half course conducted during the Winter and Spring Terms before February 28, will suffer no academic penalty.

Students must register in all half courses, regardless of suffix, during centralized course registration in September.

In-course students wishing to add half courses with suffix *a* or *b* may do so in accord with the regulations outlined under Program Changes in section on Academic Programs.

For half courses with suffix *c*, the same regulations as for full courses apply.

Pre-Professional Studies

The University believes that there is considerable merit in studying at one university before proceeding to professional study at another. Trent University graduates have attended professional schools in Business Administration, Child Study, Criminology, Dentistry, Education, Law, Medicine, Social Work and Speech Therapy, to name a few. The curriculum has therefore been planned to offer attractive courses which meet the academic requirements of Ontario's professional faculties for students proposing to proceed to another university for professional studies. Trent offers courses in the areas of science most commonly recognized for admission to professional study in health sciences.

The academic requirements for admission to some professional faculties are summarized below:

Dentistry

The University of Western Ontario and the University of Toronto offer instruction in Dentistry in Ontario. The admission requirements for this course are successful completion of either a first-year Science program or a degree in Science or Arts. Possession of these requirements renders a candidate eligible for selection; it does not guarantee admission. Prospective students of Dentistry are advised to consult very carefully the calendar of the Faculty of Dentistry of the university in which they are interested.

Law

For admission to the study of Law, a minimum of two years of university study beyond the Grade 13 level is required. However, due to the large number of applications now being received at Law faculties in Ontario, students competing for admission normally possess a university degree.

Medicine

The Faculties of Medicine at McMaster, Ottawa, Queen's, Toronto and Western Ontario Universities, require all candidates for admission to have completed either two-year pre-medical courses which they offer, or three years of study, with courses appropriate for prospective medical students, at another recognized university. So that students may take full advantage of the science courses at Trent University which will prepare them for the professional study of Medicine, they are advised to complete the secondary school program with two Mathematics credits, Physics and Chemistry.

All Canadian faculties of Medicine have many more applicants than they can admit, and possession of the entrance requirements does not guarantee admission. Prospective medical students are advised to consult very carefully the calendar of any faculty of Medicine in which they are interested.

Chartered Accountancy

The Institute of Chartered Accountants of Ontario has placed Trent University on the list of designated universities whose graduates are eligible for entry into the Institute's course of studies. Graduates of the University are, therefore, eligible for the course offered by the Institute.

Applied Community Programs in Native Studies

For 1974-75 Native Studies plans to offer a Social Services program for students who wish to develop a background in practical involvement in native communities.

Trent-Queen's Concurrent Teacher Education Program

The concurrent program will lead to two combinations of degrees: B.A., B.Ed., or B.Sc., B.Ed. at the Ordinary or Honours level. Trent University will award the B.A. or B.Sc. degree, and Queen's University will grant the B.Ed. degree. The program is designed to prepare both elementary and secondary teachers.

The professional component of the program is arranged and co-ordinated by Queen's University, with students undertaking teacher education courses on the Queen's campus.

Ontario Colleges of Education

Interim High School Assistants' Certificate, Type B

Graduates of the Ordinary program of Trent University meet the requirements for admission to the professional course leading to the Interim High School Assistants' Certificate, Type B. Endorsement of Certificate, Type B, is given to candidates offering five university courses with an overall average of second-class standing, in a subject taught in Ontario schools. Students intending to qualify for admission to the course leading to the Interim High School Assistants' Certificate, Type B, must include in their programs at least seven courses in at least two subjects taught in secondary school.

Interim High School Assistants' Certificate, Type A

For admission to the course leading to Type A certificates in the Ontario Colleges of Education, four years of university study beyond the Grade 13 level are required. Students are expected to study subjects that are taught in Ontario secondary schools. Graduates of the Ordinary program, however, may become eligible for admission to the course leading to Type A certificates in a number of ways.

Further information for prospective teachers is available from the Registrars of the Colleges of Education.

Interdisciplinary Studies and General Degree Programs

The University believes that a dynamic academic community should be prepared to introduce innovations in approaches to learning that appear to have considerable merit but which do not fall within the rubric of the traditional disciplines. Grouped on these pages are programs and other offerings which express this philosophy. Although students cannot major in these areas at this time, they can, in several cases, earn a notation of these areas of concentration on their transcript by meeting the criteria indicated under the particular heading. These courses can also be taken separately.

Also listed here are courses such as Comparative Literature, Computer Science and Statistics, which support work in several disciplines. Courses offered under the direction of individual colleges but which are full university credits are also listed here.

General Degree programs are designed for students wishing to take a broad range of courses but without specializing in any particular discipline. Interested students should read carefully the regulations as outlined in the section Academic Programs and Standings Required.

Accounting

Accounting 200

Introduction to accounting. Fundamentals of accounting theory and practice, including basic concepts underlying generally accepted accounting principles and the preparation of financial records and statements. Acceptance for credit by the Institute of Chartered Accountants of Ontario pending. Weekly two-hour seminar.

P. J. Lewis

Canadian Studies

Professor and Chairman of the Program

Alan Wilson, M.A. (DALHOUSIE), PH.D. (TORONTO)

Assistant Professor

J. H. Wadland, M.A. (WATERLOO)

Note

The Canadian Studies Program is not founded upon a single department, but is the product of co-operation by members of ten departments within the University. At least one member, and frequently several, assist in the Program's planning and instruction from the following departments: Anthropology, Economics, English Literature, French Studies, Geography, History, Native Studies, Politics, Philosophy and Sociology. At all levels the Program encourages the interdisciplinary examination of Canadian experience.

The Canadian Studies Program, introduced at Trent in 1972-73, will offer at least twelve courses in 1974-75. Any

student who has completed five university credits may register for the various courses offered under the auspices of the program.

Students formally entering the Program undertake either a two- or three-year course. Students must undertake a major in a regular discipline. Canadian Studies is an emphasis added to a regular degree program. Students in the two-year program will be required to undertake the basic multi-disciplinary *Canadian Studies 200* and *300*, and at least one or two other Canadian Studies courses in each year. The balance of a student's courses is determined by agreement between the student, the department of his major, and his Canadian Studies advisors.

For his or her fourth university year, the student may apply to the Chairman of the Program for acceptance into the Honours year, when Canadian Studies itself becomes the student's major.

Students in the Honours Program will be required to take at least four courses which must include the Honours Colloquium and at least two other senior Canadian Studies courses.

Canadian Studies 200

Canada: The land. An interdisciplinary enquiry into the function and idea of the land in Canadian experience; concepts of the land in history, geography, literature and philosophy; the land in settlement, land policy, politics, and conservation. Prerequisite: none. Lecture weekly; tutorial weekly.

J. H. Wadland and staff

Canadian Studies 210

History of art and architecture in Canada. (Not offered in 1974-75.)

Canadian Studies 230

Canada: Economic policy. Intended for students not majoring in Economics. Problems facing economic policy makers in Canada, principally at the federal level: macro-economic policy and problems of unemployment, inflation, growth and distribution; international trade and payments policy, including the question of foreign investment; industrial strategy, including competition policy, pricing in public corporations and studies of particular sectors; and problems of the public sector, including tax reform, pollution and education. Prerequisite: none. Two-hour lecture and weekly seminar.

W. T. Hunter and staff

Canadian Studies—Geography 260

Geography of Canada. A problem-oriented course, dealing with geographic aspects of Canada's role in the world, human and natural resources and efforts to

cope with current and incipient problems. Three hours or more weekly including lectures, seminars, and tutorials. Occasional field trips.

F. M. Helleiner

Canadian Studies 300

Canada: The development of community and identity. Historical and sociological approaches to the nature and forms of community in Canada, from such varied perspectives as province, nation, region; city; cultural groups. Prerequisite: none. Lecture weekly; seminar fortnightly.

A. Wilson, R. Bowles, B. W. Hodgins and staff

Canadian Studies 310

Public policy and the Canadian environment. Current issues in Canadian public policy relating to resource management, conservation, population and pollution control, approached in the context of world environmental problems and their special implications for Canadian politics, economics, and sociocultural values. Prerequisite: none. Lecture weekly; two-hour seminar fortnightly.

R. C. Paehlke

Canadian Studies 320

Growth and identity of Ontario. Ontario from colonial times to the present, with particular emphasis on the role of imperial Toronto, and attention to political, social, and educational themes. Prerequisite: *History 100* or *Politics 100*. Two-hour seminar weekly. (Enrolment may be limited.)

A. O. C. Cole and W. G. Pitman

Canadian Studies 330

Canadian-American relations. A historical survey of Canadian-American relations leading to special consideration of relations since 1940. Prerequisite: *History 100* or *Politics 100*. Lecture weekly; two-hour seminar fortnightly.

S. G. D. Smith

Canadian Studies 340

Issues in Canadian education. Current controversies concerning the goals, values, and principles of education in the context of recent developments and policies within Canada. Models for analysis will be developed from the study of classical and contemporary texts in the philosophy, sociology, and politics of education and applied by documents like *Living and Learning* and *The Learning Society*. Two-hour seminar weekly. (Not necessarily offered in 1974-75.)

L. Rubino and R. A. Lockhart

Canadian Studies 350

English- and French-Canadian prose literature. A comparative study of English and French novels, reflecting varying aspects of the novel as a genre in Canada. Competence in French not a requirement. Lecture weekly; seminar fortnightly.

G. A. Johnston and J.-P. Lapointe

Canadian Studies 400

Honours colloquium: Culture and communication. An examination and analysis of such themes as royal commissions on culture and nationalism; private and governmental aid to cultural development; the communications media, films, theatre, publishing; comparative interdisciplinary methods in regional studies; bibliographic resources. Two-hour seminar fortnightly.

J. H. Wadland and staff

Canadian Studies 410

Contemporary Canadian problems. (See *Politics 400*.)

Canadian Studies 420

Canada: The North. The historical and contemporary North in Canada in both its provincial and territorial contexts. Emphasis will be intellectual and social. Two-hour fortnightly seminars; occasional lectures.

B. W. Hodgins

Canadian Studies 430

Canada in fiction. (Not offered in 1974-75.)

Canadian Studies 480

Reading course. Special topics, designed to provide an opportunity for more intensive study of particular topics. Open to Honours undergraduates in Canadian Studies. Regular consultation and direction throughout the academic year. Arrangements to be made through C.S.P. chairman.

Students proposing to emphasize Canadian Studies may wish to consider some of the following courses in which methodology or content are considered by the departments to be especially significant for Canadian Studies:

French 100: French language in a Canadian context

Geography 101: Man in the environment

History 100: Introduction to Canadian history

Politics 100: Introduction to the study of politics

Sociology 100: Introduction to sociological studies

Anthropology 201: Native societies of Canada

Anthropology 211: Field archaeology (summer only)

Economics 210: Public finance

French 250: Quebec civilization (given in French)

French 251: Quebec civilization (given in English)

Geography 230: Recreation geography

Geography 270: Urban geography

History 230: Canadian urban history

Politics 200: Canadian government and politics

Sociology 211: Sociological enquiry: macro-sociology

Anthropology 311: North American archaeology

Biology 311: Insects and man in Canada

English 360: Studies in Canadian literature

English 361a: Canadian literature in English

English 362b: French-Canadian literature in translation

French 390: French-Canadian prose literature

Geography 330: Historical geography
Geography 364a: Geography of the Arctic
Geography 370: Planning
Geography 380: Regional economic development (not offered in 1974-75)
Geography 390a: Field course
History-Politics 300: Canadian history and politics
History 301: French Canada to 1840
Politics 310: Ontario politics
Politics 341: Party organization and elections
Sociology 340: Sociology of education
Sociology 362b: Social administration
Sociology 382a: Population and society
Sociology 386: Canadian social structures
Sociology 387a: Sociology of law
Sociology 388b: Selected topics in Canadian society
Anthropology 413: Historical archaeology of Canada
Anthropology 422a: Ethnohistory of Canada
History 401: Growth of British North American provinces
History 402: Late Victorian Canada
History 410: Social and political traditions and ideas in the U.S. and Canada since 1896
Politics 420: Foreign policy analysis (USA and Canada)

Note: See also descriptions of courses offered in *Department of Native Studies*

College Courses

Man and Survival 200

An interdisciplinary treatment of basic issues related to man's survival as a biological and social organism. Mechanisms of survival arising from natural selection and demographic principles will be studied in comparative perspective to demonstrate man's position in relation to the animal kingdom. An objective analysis will be undertaken of contemporary threats to survival with consideration given to the types of controls which may prove effective. No prerequisite. Course primarily open to second- or third-year students. One two-hour lecture weekly, tutorials throughout the year.
Fellows of Peter Robinson College

Comparative Literature

The courses in Comparative Literature are centred on two main areas: a) the development of certain literary and cultural themes within a historical and social context; and b) the relationship between literature and other disciplines or art forms. The works to be discussed will be studied in translation. Programs and preliminary reading lists are circulated in the spring. Enrolment will be limited.

Comparative Literature 200

Ideas and forms in the development of European literature. A discussion of such terms as Renaissance, Baroque, Enlightenment, Romanticism, Realism and Experimentalism in their historical and cultural contexts. Weekly lectures and seminars.

J. M. Valverde

Comparative Literature 300

Twentieth century drama. Studies in the work of modern dramatists, with particular concentration on the interpenetration of psychological and political concerns. One lecture fortnightly and one seminar weekly.

I. McLachlan

Comparative Literature 310

Film and literature. An examination of genre, theme, technique and theory in film and literature. Weekly films and seminars, and colloquia every third week.

O. S. Mitchell and staff

Computer Science

Computer Science 200a

Introduction to computer science. Algorithmic approaches to problem solving using digital computers, flowcharting, programming languages, the science of computing, systems analysis, data manipulation, simulation. Course suitable for anyone using quantitative analysis. There are no mathematical or science prerequisites. Open to students in second year and above, and first-year students with permission of instructor. Two lectures weekly plus periodic workshops.

J. W. Jury

Computer Science 201b

Advanced topics in computer science. Language structures, data structures, computer operating systems. COBOL and ALGOL programming languages, Job Control Language, data communication, computer graphics. An extension of *Computer Science 200a*, suitable for those using quantitative analysis in a variety of disciplines. Prerequisites: *Computer Science 200a* or permission of the instructor. Two class meetings and a workshop weekly.

J. W. Jury

Development Studies

A number of courses are being offered by several departments exploring the peculiar problems which face developing countries. First-year students who are attracted to this area of investigation should pursue courses in their first-year

program which will provide an adequate background for the offerings listed below. In some cases, language courses may represent a wise choice, as well as offerings in the humanities and social sciences.

Anthropology 221: Development anthropology
Anthropology 301: Peoples and cultures of Africa
Anthropology 303: Peoples of the Caribbean
Anthropology 304: Latin America
Economics 330: Development economics
History 340: Problems in imperialism 1850-1960
Politics 350: The politics of development
Politics 351: Politics and social change in Africa
Sociology 385: Comparative social structures
Also courses in cultural anthropology.

Please consult Calendar Supplement to be published in late August where alternatives in Development Studies will be outlined further.

Fine Arts

The University does not have a department of Art History. However, several courses are offered in various departments which deal specifically with visual arts. In addition, a co-operative arrangement with Sir Sandford Fleming College in Peterborough enables Trent students to register for credit in several art historical and studio courses on an experimental basis.

Trent students may register in one SSFC course per year for a total of three course credits as part of their Trent degree program. It should be noted that the *History of the Arts* is normally considered a prerequisite for all subsequent studio courses at SSFC. Enrolment in SSFC courses may be limited.

Students wishing to take any of these SSFC courses must register, as usual, through their supervisor of studies at Trent. All procedures with regard to the changing or dropping of these courses also follow the normal Trent pattern.

The following courses in Fine Arts are available to Trent students:

First Year:
History of the Arts (SSFC)
Second Year:
Canadian Studies 210: History of Art and Architecture in Canada (Not offered in 1974-75) (Trent)
One of:
Media of Art History (SSFC)
Printmaking (SSFC)
Painting (SSFC)

Third Year:
Anthropology-Native Studies 350: The Arts of Africa, Oceania, and the Americas (Not offered in 1974-75.) (Trent)
Comparative Literature 310: Film and Literature (Trent)
Philosophy 372: Philosophy of Art (Trent)
One of:
Media of Art History (SSFC)
Printmaking (SSFC)
Painting (SSFC)

All queries regarding the program should be directed to the Trent-SSFC Fine Arts Coordinator, Professor Joan M. Vastokas.

Science

Science 100

Physical bases of environmental problems. An interdisciplinary approach to environmental science stressing the physical, biological, and technological foundations of environmental degradation and preservation; atmospheric and water pollution; solid wastes disposal and recycling; non-polluting energy resources; man's radiation and acoustic environments. Designed to provide both Arts and Science students with an understanding of aspects of modern science accelerating or alleviating environmental degradation. Two lectures weekly, fortnightly seminars.

J. W. Jury and Staff

Science 101a

Medical science and man. Designed for students with little or no experience in science, this course sponsored by the departments of Chemistry and Biology and the University Health Service focuses on the chemical make-up of man, his nutrition and the impact of medical science in his life. It is hoped to clear up popular misconceptions of what constitutes health by subjecting them to some degree of scientific scrutiny. No prerequisite. One lecture and one small group meeting weekly.

R. G. Annett

Science 102b

Origins of our world. An introduction to the presently-known facts and theories concerning the formation of the universe, the chemical elements, and the earth. No prerequisite. Two lectures, one seminar or tutorial fortnightly.

T. E. W. Nind, R. A. Stairs

Science 110

Science in society. A course in basic science for non-scientists, using topics drawn from areas of current societal concern, such as pollution, computerization, population explosion, energy conservation, and the Canadian environment. Open to students of all colleges and all years,

but preference is given to those enrolled in Arts programs. No prerequisite. Enrolment limited to 28 students. Preregistration invited. One two-hour lecture/discussion and one tutorial weekly, occasional laboratory sessions and field trips.

Science 200

Elementary astronomy. The earth and its motions; the celestial sphere; solar and sidereal time; the constellations; observational techniques; the solar system; stellar distances, motions, spectra and magnitudes; binary and variable stars; star clusters, nebulae, and galaxies. Elementary high school algebra and geometry will be used. Two lectures weekly plus periodic workshops for observations.

J. I. Lodge and Staff

Science 201

The rise of modern science. A thematic approach to the development of scientific ideas from the early Greeks to the present. Emphasis will be placed on the basic concepts and theories used by the scientist to interpret and understand the world around him, and the ways in which these ideas have evolved with the progress of science. The influence of social and intellectual conditions on scientific attitudes, as well as the impact of science on intellectual thought, will also be discussed. No prerequisites. Two lectures and one seminar weekly.

R. G. Johnson and K. Rautenkranz

Social Theory

These courses are jointly sponsored by the Departments of History, Politics, Philosophy and Sociology. They consider the interplay among these various disciplines and the tradition of intellectual speculation aiming at comprehensive, morally relevant social interpretation. The courses are designed to meet several possible student concerns. In addition to the general interest in the subject, students may find that these courses serve as a useful complement to majors in a number of disciplines. Some may consider using them as the core for a cohesive general degree program. See the section Academic Programs and Standings Required for information concerning this option. All questions relating to Social Theory should be addressed to the appropriate

College Social Theory Advisor:

David Kettler, Champlain

Andrew Wernick, Lady Eaton

David Cameron, Peter Robinson

Lionel Rubinoff, Traill

Social Theory 200

An introduction to the field of modern social thought. The course will revolve around two major themes – the impact of scientific forms of reason on ethical and political theory, and the cumulative attempt to diagnose the cultural and social crisis which has attended the development of

capitalist industrialisation in the West. Major thinkers to be considered will include Rousseau, Kant, St. Simon, Comte, Marx, Spencer, Durkheim, Nietzsche and Freud.

A. L. Wernick

Social Theory 300

A critical evaluation of problems arising from the attempt to translate research in the social and historical disciplines into social theories and social policies and, ultimately, into social and political action. Among the issues to be analyzed are: logical connections between research and policy; the responsibilities of scholars; the fact-value relation in research and policy-formation. Prerequisite: *Social Theory 200* or permission of instructor. During 1974-75, the course will be offered as a research and reading course supervised by several members of the staff.

D. Kettler, Coordinator

Social Theory 400

A reading course designed primarily for students enrolled in a general degree program with a Social Theory concentration. Prerequisite: Arrangement with the Social Theory Advisers.

Other related courses include:

Sociology 210: Microsociology

Sociology 211: Macrosociology

Philosophy 214: Existentialism and phenomenology

History 220: Modern European history

Philosophy–Politics 233: Introduction to political philosophy

Philosophy 270: Philosophy of science

Sociology 311: Social innovation

Philosophy 312: Philosophy in the nineteenth century

Sociology 321: Methods of research and analysis

Philosophy–Politics 333: Revolutionary theory

Philosophy–Politics 334: Liberal democratic theory

Politics 335: Political ideology

Philosophy 374b: Philosophy of law

Philosophy 376a: Philosophy of social science

Politics 410: Contemporary political analysis

Politics 440: Marxism: criticism and development

History–Philosophy 470: Philosophy of history

Statistics

Statistics 100

Elementary statistics. An introduction to statistics for students in the social sciences. Not intended for students with a background in Mathematics, nor to be credited toward a major in Mathematics. Two lectures weekly, two-hour problems laboratory fortnightly.

E. A. Maxwell

Reading Course Option

The Academic Development Committee has approved on a trial basis a proposal to permit students to enrol in regular courses on a reading basis.

A student who has satisfactorily completed his first five courses of study may apply to take up to three regular courses a year independently on a reading basis. The option is offered to a limited number of students only in courses in which the subject material is appropriate for private study. Before the option is extended in any course, it must be approved by the tutor and his department. The deadline for registration is October 31.

Anthropology

Associate Professor of Anthropology and Chairman of the Department

R. K. Vastokas, M. A. (TORONTO), PH.D. (COLUMBIA)

Professor Emeritus

K. E. Kidd, M. A. (TORONTO), F.R.A.I.

Professor

R. B. Johnston, M.A., PH.D. (INDIANA)

Associate Professors

P. D. Harrison, M.A. (TORONTO), PH.D. (PENNSYLVANIA);
H. S. Helmuth, D.SC. (KIEL) (on leave 1974-75); Evelyn M. Todd, B.A. (TORONTO), PH.D. (NORTH CAROLINA);
C. H. Torok, M.A. (BRITISH COLUMBIA), PH.D. (TORONTO);
K. A. Tracey, B.SC. (HOWARD), D.SC. (KIEL); Joan M. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA), F.R.A.I. (on leave 1974-75).

Assistant Professors

R. S. Hagman, B.A., PH.D. (COLUMBIA); Linda J. Hubbell, M.A. PH.D. (BERKELEY); Morgan J. Tamplin, B.A. (TORONTO), M.A. (LONDON); B. W. von Graeve, M.A. (TORONTO).

Required Courses

Single-major Ordinary program. Minimum five courses in Anthropology

Anthropology 100

200

212 or 221

230 or 240

Joint-major Ordinary program. Minimum five courses in Anthropology

Anthropology 100

two of 200, 212, 221, 230, 240

Single-major Honours program. Minimum eight courses in Anthropology

Anthropology 100

200

212

230

240

420

two other four-hundred series courses

Joint-major Honours program. Minimum six courses in Anthropology

Anthropology 100

two of 200, 212, 221, 230, 240

and 420

Special Provisos

— To be eligible for admission to a single-major Honours program, a student must have obtained standing in the four sub fields, namely in *Anthropology 200, 212, 230, and 240*, while qualifying for the Ordinary degree. A student in a single-major Honours program is expected to carry five courses.

— Course selection in any joint-major program must be approved by the department. Every student must discuss his fourth year program and complete his application with the department before April 15.

— Details of prerequisites are given under the individual course listings, but it should be noted that *Anthropology 100* is a normal prerequisite for other courses in Anthropology.

Anthropology 100

Introductory anthropology. A survey of the four fields of anthropology: Physical Anthropology, Archaeology, Cultural Anthropology, and Linguistics. Major topics of discussion will be human development, Old World and New World archaeology, patterns of culture among preliterate societies, and languages and communication. Two-hour lecture weekly, fortnightly tutorials and a laboratory session.

R. B. Johnston and staff

Anthropology-Sociology 200

Cultural anthropology. An analysis of the dimensions of culture in preliterate societies, considered in terms of technology, social organization and ideology, including a survey of current approaches to the study of culture. Prerequisite: *Anthropology 100* or *Sociology 100* or the permission of the instructor. Two-hour lecture weekly, seminar fortnightly.

L. J. Hubbell

Anthropology—Native Studies 201

Native societies of Canada. A study of the prehistoric background and modern groupings of Indians in Canada at the time of historical contact, including observations on physical, economic, cultural and linguistic aspects. Prerequisite: *Anthropology 100* or *Native Studies 100* or permission of the instructor.
C. H. Torok

Anthropology—Biology 203b

Population genetics and evolution (*See Biology 203b.*)

Anthropology 211

Field methods and techniques in archaeology. An introduction to the removal, analysis, and interpretation of archaeological evidence in a field situation. (Summer only.)
R. B. Johnston and staff

Anthropology 212

World prehistory. A survey of selected cultural histories of the prehistoric period. Emphasis on culture development and regional chronologies in the Old World and the New World. Prerequisite: *Anthropology 100* or permission of the instructor. Lecture, tutorial weekly.
M. Tamplin and staff

Anthropology 220

Anthropology of religion. This course will be concerned with making cross-cultural generalizations about the magico-religious belief systems of small-scale societies. Prerequisite: *Anthropology 100.*
C. H. Torok

Anthropology 221

Development anthropology. An appraisal of the resources of anthropology in the study of cultural stability and change, and a critical survey of conscious use of anthropological information and theory in the introduction of new ideas and techniques. Special areas to be studied will include Africa, the Caribbean, and Latin America. Prerequisite: *Anthropology 100* or permission of instructors. Two-hour seminar weekly.
R. K. Vastokas, K. A. Tracey, B. W. von Graeve

Anthropology 230

General linguistics. An introduction to descriptive, historical, and comparative linguistics; the study of languages in their spoken form; Indo-European linguistic studies. No prerequisite. Lecture, two-hour seminar weekly.
E. M. Todd

Anthropology 240

Introduction to physical anthropology. A study of man's evolution, the physical characteristics of the living varieties of mankind, and the biology and genetics of the human species. Prerequisite: *Anthropology 100* or permission of the instructor. Lecture, two-hour seminar in the laboratory bi-weekly.

Anthropology—Biology 286a

General genetics (*see Biology 286a.*)

Anthropology 301

Peoples and cultures of Africa. This course will deal with the development of man in Africa, the background of early racial amalgamation, and the physical characteristics of the living races of Africa as well as a study of African culture and history before and after the era of European domination. Prerequisite: *Anthropology 100* or permission of instructor.
K. A. Tracey and R. S. Hagman

Anthropology 302

Cultures of the Pacific basin. An introduction to the peoples, the cultures, and history of the Pacific areas of Indonesia, Melanesia, Australia, Micronesia and Polynesia. Prerequisite: *Anthropology 100* or permission of instructor. Two-hour seminar weekly.
E. M. Todd

Anthropology 303

Caribbean societies. (Not offered in 1974-75.)

Anthropology 304

Latin America. Examination of ethnic and historical foundations of Latin American society. Problems of modernization with special emphasis on peasant movements and interethnic relations. Prerequisite: *Anthropology 100* or permission of instructor. Lecture, seminar weekly.
B. W. von Graeve

Anthropology 305

Kinship and social organization. (Not offered in 1974-75.)

Anthropology 310

Archaeological method and theory. Archaeological methods concerning practical problems in the field and laboratory; basic approaches to the subject matter of archaeology. Theoretical discussions include the history of archaeological thought and contemporary approach to the problems of organizing field data. Prerequisite: *Anthropology 100.*
R. B. Johnston, P. D. Harrison, M. J. Tamplin

Anthropology 311

Prehistory of North America. This course will survey the prehistoric cultures of North America north of Mexico from man's first entry into the New World to European contact. Prerequisite: *Anthropology 100.* Lecture weekly, seminar fortnightly.
R. B. Johnston

Anthropology 330a

Historical linguistics. (Offered in 1975-76 and alternate years.)

Anthropology

Anthropology 331b

Languages of the world. (Offered in 1975-76 and alternate years.)

Anthropology 332a

Language in society. Social and situational variation in language; dialects and bilingualism; language learning and literacy; terms of address; folklore and its uses. Prerequisite: *Anthropology 200* or *230*. (Offered in 1974-75 and alternate years.)

L. J. Hubbell

Anthropology 333b

Cognitive anthropology. The study of cultural differences revealed in language; the relationships between language structure and world view. Prerequisite: *Anthropology 200* or *230*. (Offered in 1974-75 and alternate years.)

R. S. Hagman

Anthropology-Biology 340

Primatology. General biology, systematics, anatomy, palaeontology and behaviour of non-human primates, including the importance of studying primates for the understanding of human evolution. Prerequisite: *Anthropology 240* or permission of instructor. Two hours of lectures weekly and a two-hour seminar in the laboratory bi-weekly.

Anthropology-Biology 341

Comparative osteology of man. (Offered in 1975-76 and alternate years.)

Anthropology-Biology 342

Social biology of man. (Not offered in 1974-75.)

Anthropology-Native Studies 350

The arts of Africa, Oceania, and the Americas. (Not offered in 1974-75.)

Courses in the four-hundred series are normally open only to students in the Honours program.

Anthropology 411a

Mesoamerican prehistory. From Early Man to European conquest, with emphasis on agricultural development and the growth of civilizations in various culture regions of the area. Prerequisite: *Anthropology 100* or permission of instructor. *P. D. Harrison*

Anthropology 412b

Andean prehistory. From Early Man to European conquest. History of Andean studies and presentation of recent developments in the regional growth and differentiation of civilizations, including the origins of the Andean cultures. Prerequisite: *Anthropology 100* or permission of instructor. Lecture, seminar weekly.

Anthropology 413

Historical archaeology of Canada. (Not offered in 1974-75.)

Anthropology 420

The history and theory of anthropological thought. A discussion of principal trends in anthropological thinking from the mid-nineteenth century to the present. "Schools" of cultural anthropology such as evolutionism, historicism, diffusionism, structural-functionalism, neoevolutionism and componential analysis will be treated in an exclusively tutorial setting. Prerequisite: *Anthropology 200*. Enrolment may be limited.

Staff

Anthropology 422a

Ethnohistory of Canada. (Not offered in 1974-75.)

Anthropology 423

Culture and communication. Analysis of the effects of culture on patterns of non-verbal communication. Discussion of kinesics, proxemics and paralinguistics. Prerequisite: *Anthropology 200* or *230* or permission of instructor. One two-hour seminar weekly.

R. K. Vastokas

Anthropology 430

Field methods in linguistics. A research project in which an unfamiliar language is studied by working directly with a native speaker. Prerequisite: *Anthropology 230* or permission of instructor. Three-hour laboratory weekly. Independent study and periodic consultation with instructor. Open to third-year students. (Offered in 1974-75 and alternate years.)

E. M. Todd

Anthropology 431

Algonkian linguistics. (Offered in 1975-76 and alternate years.)

Anthropology 432a

Linguistic theory of phonology. An examination of approaches to the study of sound systems in language. Articulatory and acoustic phonetics, autonomous phonemics, and generative phonology. Prerequisite: *Anthropology 230* or permission of instructor. Two-hour seminar each week.

R. S. Hagman

Anthropology 433b

Linguistic theory of grammatical structure. An examination of traditional, structural and generative-transformational theories of language structure, emphasizing recent developments in linguistic theory. Prerequisite: *Anthropology 230* or permission of instructor. Two-hour seminar each week.

R. S. Hagman

Anthropology 440

Advanced physical anthropology. Demonstration and practice in the use of anthropometric, dermatoglyphic and serological

techniques in physical anthropology. Prerequisite: *Anthropology 240* or permission of instructor. Enrolment may be limited. Instruction will be by means of laboratories and seminars involving three hours of work weekly, and occasional field trips.

Anthropology 490

Reading courses. A course designed to pursue special interests, largely through independent study. Details to be arranged in consultation with staff in Anthropology and proposals to be submitted by April 15 of the preceding academic year. A petition must be submitted to the department if more than one reading course is contemplated.

Biology

Associate Professor and Acting Chairman of Department
I. M. Sandeman, B.Sc. (ST. ANDREWS), F.L.S.

Professor

R. L. Edwards, M.A., D.Phil. (OXFORD.), F.R.E.S.

Associate Professors

Michael Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), Ph.D. (PRINCETON); J. E. Nighswander, B.Sc.F. (TORONTO), Ph.D. (WISCONSIN); P. M. Powles, B.A., (WESTERN ONTARIO), Ph.D. (MCGILL)

Assistant Professors

Roger Jones, B.Sc. (WALES), M.Sc. (KANSAS), Ph.D. (WALES) (on leave 1974-75); D. C. Lasenby, B.Sc. (TRENT), Ph.D. (TORONTO); T. R. Matthews, B.Sc. (SOUTHAMPTON)

Lecturer

Christine D. Johnson, B.Sc. (WALES)

Required Courses

Single-major Ordinary program. Minimum six courses in Biology

Biology 110
120

Four other Biology courses at *two-hundred* or higher level

Joint-major Ordinary program. Minimum five courses in Biology

Biology 110 or *120*

Four other Biology courses

Single-major Honours program. Minimum nine courses in Biology

Completion of Single-major Ordinary program

At least one of *Biology 400* and *490*

A minimum of two additional *three-hundred* or *four-hundred* series courses in Biology.

Joint-major Honours program.

Completion of single-major or joint-major program.

Program to be approved by the departmental committee.

Recommended Additional Courses

Single-major Ordinary program

Chemistry 100 or *101* (Highly recommended),
210a, *230b*.

Mathematics 100 or *Statistics 100*

Physics 100

Joint-major Program

Chemistry 100 or *101*

Mathematics 100 or *Statistics 100*

Note

— In some cases, with permission of the department, one of *Biology 110* or *120* may be taken along with *Biology 100* as part of a first year program.

— All *three-hundred* and *four-hundred* series courses except *Biology 400* and *490* can be taken in either third or fourth year, and some will be offered only in alternate years. Students wishing to register in a *three-hundred* or *four-hundred* series course outside of their year must obtain permission of the instructor.

— Transfer students should consult the department before selecting courses.

— The departmental committee should be consulted for departures from any of the above programs.

Charges may be made for field trips in some courses.

Biology 100

General biology. An introduction to biology, investigating such diverse topics as ecology, physiology and evolution, particularly as they affect mankind. This is a course for students who have not had Grade 13 Biology, or do not intend to major in Biology. Two lectures and one three-hour laboratory period weekly; tutorial fortnightly.

D. C. Lasenby, M. Berrill

Biology 110

The animal kingdom. A comparative study of the main groups of animals, their structure, development, physiology, life history, and phylogenetic relationships. Recommended: Grade 13 Biology or *Biology 100*. Lecture, three-hour laboratory period, and seminar or tutorial fortnightly.

I. M. Sandeman and staff

Biology 120

The plant kingdom. An introduction to plant biology which will include a comparative study of the main groups of plants, their structure, development, physiology, life histories, and phylogenetic relationships. Recommended: Grade 13 Biology or *Biology 100*. Two lectures, three-hour laboratory per week and a tutorial every three weeks.

C. D. Johnson, J. E. Nighswander

Biology

Biology 202

Ecology. Relationships of plants and animals to their total environment; the study of populations and communities within various ecosystems. Prerequisite: *Biology 110* or *120*. Recommended: *Statistics 100*. Lecture, three-hour laboratory and seminar or tutorial fortnightly. Field trips, which must be attended, will be held from September 9 to 13 inclusive. R. L. Edwards, D. Lasenby

Biology-Anthropology 203b

Population genetics and evolution. A study of the genetic basis of evolution at the population level. Prerequisite: *Biology-Anthropology 286a* or permission of instructor. Recommended: *Statistics 100*. Lecture, three-hour laboratory, and seminar or tutorial weekly. J. E. Nighswander

Biology 211

Vertebrate zoology. The evolution, taxonomy and functional morphology of the vertebrates. Highly recommended: *Biology 110*. Lecture, three-hour laboratory weekly and seminar or tutorial fortnightly. P. M. Powles

Biology-Chemistry 230b

Introductory Biochemistry. See *Chemistry 230b*.

Biology-Anthropology 286a

General genetics. Fundamental genetic principles, including classical and molecular aspects. Prerequisites: At least one of *Biology 100*, *110* or *120* or by arrangement with instructor. Lecture, three-hour laboratory weekly; and seminar or tutorial weekly. J. E. Nighswander

Biology 303b

Biological techniques. Theory of nucleoplasmic relations in plant and animal cells. Practical instruction in histological and histochemical techniques in the study of plant and animal tissues; elementary application of the electron microscope in the study of viruses. Recommended: *Biology 110* and *120*. Lecture, tutorial, three-hour laboratory weekly. J. E. Nighswander

Biology 305

Limnology. (Not offered in 1974-75.)

Biology 311

Insects and man in Canada. This completely revised course shows how the structure, life history and behaviour of insects enables them to wage war against us. Combat reports from several of the major battle fronts will be studied in detail.

Two lectures and one two-hour practical period weekly in autumn term, one two-hour tutorial or seminar weekly in winter term.

R. L. Edwards

Biology 312a

Developmental biology. An introduction to the events and concepts of development as illustrated by embryonic development, cancer and regeneration. Recommended: *Biology 110* and *120*. Lecture, tutorial, three-hour laboratory weekly. M. Berrill

Biology 314b

Fish biology. The biology, ecology and physiology of marine and fresh water fishes. Management practice of fisheries. Prerequisite: *Biology 110*. Recommended: *Biology 202*. Lecture, tutorial, three-hour laboratory weekly, field trips. P. M. Powles

Biology 320b

Plant growth and development. (Not offered in 1974-75.)

Biology 321a

Plant nutrition and water relations. (Not offered in 1974-75.)

Biology 324a

Biology of the algae. An introduction to this important group of plants which are often considered a nuisance but which are also one of the world's important natural resources. Their ecological role in both the marine and fresh water environments will be emphasized as well as their economic importance. Recommended: *Biology 120*. Lecture; three-hour laboratory and seminar or tutorial weekly. C. D. Johnson

Biology 325a

Microbiology. An introduction to bacteria, yeasts and viruses emphasizing the physiology and ecology of microorganisms. The diversity of forms and adaptability to new habitats will be discussed. Prerequisites: *Biology 100* or *120* and *Chemistry 100* or *101* or permission of instructor. Recommended: *Biochemistry 230b*. Two-hour lecture/tutorial and three-hour laboratory weekly, evenings only. M. P. Forsyth

Biology-Chemistry 330

General biochemistry. See *Chemistry 330*.

Biology-Anthropology 340

Primateology. See *Anthropology 340*.

Biology-Anthropology 341

Comparative osteology of Man. See *Anthropology 341*.

Biology-Anthropology 342

Social biology of man. See *Anthropology 342*.

Biology-Geography 350a
Biogeography. (Not offered in 1974-75.)

Biology 381a
Comparative endocrinology. Anatomy and physiology of the endocrine systems of animals and the effects of hormones on development and behaviour. Integration between the nervous and endocrine systems. Highly recommended: *Biology 110* or by arrangement with instructor. Lecture, tutorial, three-hour laboratory weekly.
T. Matthews

Biology 382a
General physiology of animals. (Not offered in 1974-75.)

Biology 386b
Animal behaviour. An introduction to the ecological, physiological and evolutionary mechanisms which influence the behaviour of animals with particular emphasis on animal societies. Recommended: *Biology 110, 202, 286a*. Lecture, tutorial, three-hour laboratory weekly.
M. Berrill

Biology 390
Readings in modern biology. Special topics designed to provide an opportunity for more intensive or for broader study of particular fields of biology. Regular consultation and direction during the year. A student wishing to take this course must submit the topic to the departmental committee for approval preferably before the end of the preceding year.

Biology 400
Selected topics in biology. This course, in which students will investigate a specific field of interest under the guidance of a faculty member, counts as two credits. A student wishing to take this course must submit the topic to the departmental committee for approval preferably before the end of the preceding year.

Biology 401a
Electron microscopy. (Not offered in 1974-75.)

Biology 402b
Biology of pollution. The causes and biological effects of pollution with special reference to water pollution. Formerly *Biology 300*. Prerequisite: *Biology 202, Chemistry 100 or 101*. One two-hour seminar period weekly and a project.
D. Lasenby

Biology 404a
Marine biology. Life in the sea. Recommended: *Biology 110 and 120*. Highly recommended: *Biology 202*. Seminar and lecture fortnightly. Compulsory week-long field trip to the Huntsman Marine Laboratory during the fall Reading Break; a field report will be required.
P. M. Powles, T. Matthews

Biology 410
Parasitology. The biology of animal parasites. Prerequisite: *Biology 110*. Lecture, tutorial, three-hour laboratory period weekly.
I. M. Sandeman

Biology-Chemistry 430
Advanced biochemistry. See *Chemistry 430*.

Biology-Chemistry 431a
Advanced experimental biochemistry. See *Chemistry 431a*.

Biology 490
Readings in modern Biology. Similar to *Biology 390* but restricted to students in their Honours year. A student wishing to take this course must submit the topic to the departmental committee for approval preferably before the end of the preceding year.

Chemistry

Professor of Chemistry and Chairman of the Department
Keith B. Oldham, B.Sc., Ph.D., D.Sc. (MANCHESTER), F.R.I.C.

Professors
Stewart A. Brown, B.S.A. (TORONTO), M.Sc., Ph.D. (MICHIGAN STATE), F.C.I.C.; Alun H. Rees, M.A., Ph.D. (CAMBRIDGE), M.A. (OXFORD), Ph.D. (LONDON), F.R.I.C.; Robert A. Stairs, B.Sc. (MCGILL), M.Sc. (WESTERN ONTARIO), Ph.D. (CORNELL)

Associate Professors
Peter F. Barrett, M.Sc. (QUEEN'S), Ph.D. (TORONTO); Ian D. Chapman, B.Sc. (LIVERPOOL), M.A. (TORONTO) (on leave 1974-75); Raymond E. March, B.Sc. (LEEDS), Ph.D. (TORONTO)

Assistant Professors
Robert G. Annett, B.Sc., Ph.D. (WINDSOR); Errol G. Lewars, B.Sc. (LONDON), Ph.D. (TORONTO)

Special Lecturer
Mary L. Amyotte, B.Sc. (IRELAND)

Required Courses
Single-major Ordinary program. Minimum six courses in Chemistry
Chemistry 100
200
210a
211b
300 or 310

Chemistry

Joint-major Ordinary program. Minimum five courses in Chemistry

Chemistry 100
200
210a
211b

Single-major Honours program. Minimum eleven courses in Chemistry of which four must be *four-hundred* series courses

Chemistry 100
200
210a
211b
240 or 320
300
310
490

Joint-major Honours program. Intending students are advised to consult the two departments involved as early as possible in their university careers.

Special Proviso

— Since *Chemistry 100* and *Chemistry 101* cannot be taken concurrently, only one chemistry course is normally open to first-year students. However, students with a strong background in chemistry may petition to take *Chemistry 210a* concurrently with *Chemistry 100*; such permission will be granted on the basis of performance in a special examination held in the week preceding the autumn commencement of classes.

— *Chemistry 101* is acceptable as a prerequisite to *Chemistry 210a* but for other *two-hundred* series courses only with permission of the department.

Special permission may be granted:

a) if a high standard is maintained in *Chemistry 101*, and
b) if additional private study is undertaken during the summer preceding the second year. If such permission is granted, the *Chemistry 101* credit is thereafter deemed equivalent to a credit in *Chemistry 100*.

— For the purpose of meeting the University's degree requirements, *Chemistry 240* may be regarded as a *three-hundred* series course.

— Departures from the normal pattern of courses may sometimes be permitted. Apply to the Chairman.

Notes

— Students planning to major in Chemistry should note that an adequate grounding in Physics and Mathematics is essential. Some background in Biology and Physical Chemistry is recommended for those wishing to take courses in Biochemistry. Note also the mathematical prerequisite to *Chemistry 200*.

— All students taking one or more laboratory courses in Chemistry will be required to pay a laboratory deposit of \$20. Depending on breakages incurred during the year, the deposit will be returned wholly or in part at the end of the session.

Chemistry 100

General chemistry. An introductory course in physical and inorganic chemistry. Atoms, molecules, crystals, chemical binding, ions, electrolysis, reaction rate, equilibrium, inorganic and organic descriptive chemistry. Prerequisites: Grade 13 Chemistry or its equivalent. Two lectures weekly; one laboratory or problem session weekly.

P. F. Barrett

Chemistry 101

Introductory chemistry. An introductory course in chemistry open only to students who do not possess recent qualifications in Grade 13 Chemistry or its equivalent. The course will normally qualify students for later year courses in organic chemistry and biochemistry only. (See Special Proviso.) *Chemistry 101* and *Chemistry 100* cannot both be counted toward minimum course requirements for a major. Two lectures, and one three-hour laboratory or problem session weekly.

R. A. Stairs

Chemistry 200

Elementary physical chemistry. The theme of this course is the physical chemistry of physical and chemical processes. Kinetic and thermodynamic aspects of chemical reactions are treated. Prerequisites: *Chemistry 100* and *Mathematics 100*; see also Special Provisos. Before Christmas: two or three lectures and one tutorial weekly; after Christmas: one lecture, one tutorial and one laboratory weekly.

K. B. Oldham

Chemistry 210a

Introductory organic chemistry. The structure and chemistry of those important classes of organic compounds which form the basis of both organic chemistry and biochemistry. This half course may be followed by *either or both* of *Chemistry 211b* and *Chemistry-Biology 230b*. Prerequisite: *Chemistry 100* or *Chemistry 101*; see also Special Provisos. Lecture and laboratory weekly; fortnightly tutorial or additional lecture.

A. H. Rees

Chemistry 211b

Continuing organic chemistry. Further grounding in important classes of organic compounds, with stress on the underlying principles involved in their reactions; introduction to physical methods of structure determination; qualitative organic analysis. Prerequisite: *Chemistry 210a*. Lecture and laboratory weekly; fortnightly tutorial or seminar.

E. G. Lewars

Chemistry–Biology 230b

Introductory biochemistry. Designed to interest both biologists and chemists, this course deals with the properties of biologically important compounds, the mechanisms and energetics of metabolic processes, and molecular genetics. Prerequisite: *Chemistry 210a*. Lecture weekly, laboratory or tutorial in alternate weeks.

S. A. Brown

Chemistry 240

Analytical chemistry. The theory and practice of classical and instrumental analytical chemistry, including volumetric, gravimetric methods, and chromatography. Applications to both inorganic and organic analysis. Emphasis is upon the physical and chemical principles, rather than on details of procedure. Prerequisite: *Chemistry 100*; see also Special Provisos. Laboratory weekly; two lectures, tutorials or seminars weekly. (Offered in alternate years; not offered in 1974-75, though available as a summer course in 1974.)

R. A. Stairs

Chemistry 300

Physical chemistry. Introduction to quantum chemistry, chemical bonding, statistical mechanics, spectroscopy and reaction rate theory. Prerequisite: *Chemistry 200*. Two lectures weekly, tutorials fortnightly, laboratory weekly. Seminars to be arranged.

R. E. March

Chemistry 310

Organic chemistry. A survey of organic chemistry with emphasis on theory and physical aspects, including spectrometry and modern methods of elucidating structures and reaction mechanisms. Prerequisite: *Chemistry 211b*. Two lectures or tutorials weekly; one laboratory weekly; seminars to be arranged.

E. G. Lewars

Chemistry 320

Inorganic chemistry. Atomic structure and its relation to chemical properties of the element, valence theory, stereochemistry of inorganic compounds, co-ordination compounds. Open to students in second or third years. Prerequisite or corequisite: *Chemistry 200*. Two lectures or tutorials and one laboratory weekly; seminars to be arranged. (Offered in 1974-75 and alternate years.)

P. F. Barrett

Chemistry–Biology 330

General biochemistry. An introduction to the chemistry of animals, higher plants, and micro-organisms, including composition of tissues, nature of enzymes and biocatalysis, energy relationships, formation and degradation of metabolically important compounds, and control of metabolism. Prerequisites: *Chemistry 211b* and permission of instructor,

or *Chemistry–Biology 230b*. Lecture weekly, one tutorial and one seminar in alternate weeks, laboratory weekly.

S. A. Brown

Four-hundred Series Courses

Scant details of these offerings are provided because their content is determined, in part, by the interests of the students enrolled. Intending students should contact the department as early as possible.

Chemistry 400

Advanced physical chemistry. Prerequisite: *Chemistry 300*. Two lectures, tutorials or seminars weekly.

Chemistry 410

Advanced inorganic chemistry. Prerequisite: *Chemistry 310*. Two lectures, tutorials or seminars weekly.

Chemistry 420

Advanced inorganic chemistry. Prerequisite: *Chemistry 320*. Two lectures, tutorials or seminars weekly.

Chemistry–Biology 430

Advanced biochemistry. Current concepts in theory and methods of biochemistry, including enzyme kinetics and mechanisms, metabolic regulation, structure-function relationships of macromolecules, selected topics in metabolic pathways, applications of enzymological and isotopic techniques. Prerequisite: *Chemistry–Biology 330*. Lecture weekly, tutorial and seminar in alternate weeks.

Chemistry–Biology 431a

Advanced experimental biochemistry. A course involving six hours of laboratory work weekly during the first half of the session. Corequisite: *Chemistry–Biology 430*.

Chemistry 432b

Biochemistry project. This course follows *Chemistry–Biology 431a*. Intended for Honours Chemistry students with strong biochemical interests. Corequisite: *Chemistry–Biology 430*. Meetings at regular intervals to be arranged.

Chemistry 490

Experimental chemistry. Literature survey and practical work, normally including a project, in an area of chemistry according to the student's field of specialization. About eight hours per week.

Chemistry 491

Extended project. Open to honours Chemistry students specializing in branches of chemistry other than biochemistry, this course is taken in conjunction with *Chemistry 490* to double the credit. Corequisite: *Chemistry 490*.

Chemistry 499

A reading course on topics drawn from one of the following fields: analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry, theoretical chemistry.

Interdisciplinary Courses

The attention of chemistry students is drawn to the various Interdisciplinary Science Courses listed elsewhere in this Calendar. Several of these offerings address topics of interest to chemists.

Classical Studies

Professor of Classics and Chairman of the Department

B. P. Reardon, M.A. (GLASGOW), B.A. (CAMBRIDGE), D.U. (NANTES)

Professor in Ancient History

Gilbert Bagnani, D. LITT. (ROME), F.R.S.C., LL.D. (TRENT)

Associate Professors

Janet P. Bews, M.A. (QUEEN'S), PH.D. (LONDON); Roger Crowhurst, B.A., PH.D. (LONDON); David F. R. Page; B.A. (SHEFFIELD); A.M. Young, M.A. (MELBOURNE), PHIL.M. (TORONTO) (on leave 1974-75)

Assistant Professor

Konrad H. Kinzl, PH.D. (VIENNA)

Courses are offered toward majors in the following three fields, which for the purpose of degree regulations are regarded as three separate subjects (see Special Provisos):

A. Latin language and Literature
B. Greek language and Literature

C. Classical Studies in Translation, comprising Classical History, Classical Literature, and Ancient Philosophy (offered by the Department of Philosophy). No knowledge of Greek or Latin is required in these courses.

Major programs are available in each of A, B and C, and also in combinations of A and/or B and/or C.

Required Courses

Single-major Ordinary program. Minimum of six or seven courses of which at least four must be beyond the *one-hundred* level and at least two at the *three-hundred* level:

A. six courses in Latin
B. six courses in Greek

C. either six courses in Classical History or seven courses chosen from Classical History, Classical Literature, and Ancient Philosophy.

A and/or B and/or C in combination. Minimum seven courses.

Joint-major Ordinary program. Minimum of five courses, of which four must be beyond the *one-hundred* level and at least one at the *three-hundred* level.

Single-major Honours program, available in Latin and in Greek. Minimum of eight courses in Latin or in Greek, including two at the *four-hundred* level, plus two courses in Classical History.

Joint-major Honours program, available in Latin and in Greek. Fourth-year programs to be arranged in consultation with the department.

Special Provisos

The minima for majors are set out above; however, students are not limited to a maximum of eight courses within the Department of Classical Studies, but may take courses in each of its component subjects, subject to general regulations for degrees. A student in first year may take only two courses in the Department of Classical Studies. Students proposing to major in Classical Studies should consult the department.

Practice in prose composition and sight translation forms part of the program in all years in both Latin and Greek.

The content of Greek courses beyond *Greek 100* may be modified, at the discretion of the department, and the number of Greek courses offered beyond the *two-hundred* level in any given year will be limited; students wishing to study Greek beyond *Greek 100* should consult the department.

The number of Latin courses offered beyond the *two-hundred* level may also be limited in any given year.

One course in Classical Literature in Translation may be counted for credit toward a major in English.

Recommended Courses

Students concentrating on non-linguistic courses should take at least one course in a classical language.

Latin Language and Literature

Latin 100

Elementary Latin. For students with little or no previous knowledge of the language. No prerequisite. Four hours weekly.

Latin 200

Studies in Latin language and literature. Selections from prose and verse writings, including Catullus, Cicero, Ovid and Medieval Latin. Prerequisite: *Latin 100* or Grade 13 Latin. Three hours weekly.

Latin 210

Comedy and satire. Terence, *Adelphi*; Horace, *Satires*; Juvenal. Prerequisite: *Latin 100* or Grade 13 Latin. Three hours weekly.

Latin 300

Studies in Augustan literature. Livy; Horace, *Odes*; Propertius. Prerequisite: *Latin 200* or *210*. Occasional lecture, two tutorials, language seminar weekly.

Latin 310

Virgil, *Aeneid*, *Georgics* and *Eclogues*. Prerequisite: *Latin 200* or *210*. Occasional lecture, two tutorials, language seminar weekly.

J. P. Bews

Latin 320

Historical and philosophical writing. Tacitus, *Annals*; Lucretius; Cicero, *Tusculan Disputations*. Prerequisite: *Latin 200* or *210*. Occasional lecture, two tutorials, language seminar weekly.

J. P. Bews

Latin 400

Reading course. Regular meetings.

Latin 410

Studies in Latin language and literature and Roman civilization, with some concentration on a special subject. Regular meetings.

Greek Language and Literature

Greek 100

Elementary Greek. For students with little or no previous knowledge of the language. No prerequisite. Four hours weekly.

R. Crowhurst

Greek 200

Studies in Greek language and literature. Selections from prose and verse writings: Plato, *Apology*; Euripides, *Alceste*; Herodotus. Prerequisite: *Greek 100* or Grade 13 Greek. Three hours weekly.

B. P. Reardon

Greek 210

Homer, *Iliad* and *Odyssey*. Prerequisite: *Greek 100* or Grade 13 Greek. Three hours weekly.

R. Crowhurst

Greek 300

Tragedy. Aeschylus, *Prometheus Bound*; Sophocles, *Antigone*; Euripides, *Hippolytus*. Prerequisite: *Greek 200* or *210*. Three hours weekly.

Greek 310

Prose. History, oratory, biography: Thucydides; Demosthenes, *Philippics*; Plutarch, *Lives*. Prerequisite: *Greek 200* or *210*. Three hours weekly.

Greek 320

Verse. Lyric, elegiac, comic: selections in lyric poetry; Aristophanes, *Clouds*; Menander, *Dyscolus*. Prerequisite: *Greek 200* or *210*. Three hours weekly.

B. P. Reardon

Greek-Philosophy 385

Greek philosophical texts. See *Philosophy 385*.

Greek 400

Reading course. Regular meetings.

Greek 410

Studies in Greek language, literature and civilization, with some concentration on a special subject. Regular meetings.

Classical Studies in Translation

Classical History 100

Ancient society and institutions: an introduction to the study of ancient history, illustrated particularly by the history of Greece from Solon to Alexander (c. 600-323 B.C.) and Roman history from the Gracchi to Nero (133 B.C.-A.D. 69). No prerequisite. Two lectures weekly, fortnightly seminar.

D. F. R. Page

Classical History 210

Greek history. The age of the tyrants. (Offered in 1975-76 and alternate years.)

Classical History 211

Themes in Greek society and civilization 700-350 B.C., as seen through archaeology. Prerequisite: *Classical History 100* or permission of instructor. Three lectures per fortnight, fortnightly seminar. (Offered in 1974-75 and alternate years.)

R. Crowhurst

Classical History 220

The Roman Empire in the period of the Principate. (Offered in 1975-76 and alternate years.)

Classical History 221

The Roman Republic. Prerequisite: *Classical History 100*. Three lectures per fortnight, fortnightly seminar. (Offered in 1974-75 and alternate years.)

D. F. R. Page

Classical History 310

Greek history. The age of Alexander. The decline of Athens and the spread of Hellenism. Prerequisite: *Classical History 100*. Three lectures per fortnight, fortnightly seminar. (Offered in 1974-75 and alternate years.)

R. Crowhurst

Classical History 320

The Roman Empire in the period of the Dominate. The transition from classical to medieval culture, with special reference to the establishment of Christianity. Prerequisite: Permission of Chairman. Weekly lectures; fortnightly seminar. *G. Bagnani*

Classical History 330

Roman law. Prerequisite: *Classical History 100* or *Latin 100*, and permission of the Chairman. Weekly lectures, fortnightly seminar. *G. Bagnani*

Classical Literature

Classical Literature 100

Major Greek and Latin literary forms, studied in translation. Epic (Homer and Virgil); tragedy (Aeschylus, Sophocles, Euripides); comedy (Aristophanes, Plautus, Terence); novel and other prose (Apuleius, Longus; Plutarch, Lucian). Three lectures per fortnight, fortnightly seminar.

B. P. Reardon and staff

Classical Literature 200

Further study in translation of selected areas of Greek and Latin literature.

a) Greek literature: theory and practice: literary criticism, epic, tragedy. b) Latin literature: men and manners: satire, personal poetry, biography, historiography. Prerequisite: *Classical Literature 100* or permission of the department. Weekly lecture, weekly seminar.

J. P. Bews and B. P. Reardon

Classical Civilization 380

Intensive study in the field of classical literature and civilization. For 1974-75 the principal topic will be ancient historiography; with permission of the department students may study a further topic. Open to third- and fourth-year students only. Prerequisite: two courses in Classical History or two courses in Classical Literature. Weekly meetings.

Ancient Philosophy

See *Philosophy 210* and *310*.

Economics

Professor of Economics and Chairman of the Department
M. J. Boote, B.A. (WALES); PH.D. (MCGILL)

Associate Professors

D. C. A. Curtis, M.A. (QUEEN'S), PH.D. (MCGILL); W. T. Hunter, B.COM. (TORONTO), M.A. (TORONTO, OXFORD); H. M. Kitchen, M.A. (MCMaster) (on leave 1974-75); K. S. R. Murthy, B.SC. (ANDHRA), M.SC. (KARNATAK), M.A. (DELHI, WESTERN ONTARIO), PH.D. (WESTERN ONTARIO)

Special Lecturer in Accounting

P. J. Lewis, B.A. (TORONTO), C.A.

Economics 100 is a prerequisite for all other courses in Economics. Two-hundred series courses in Economics are accepted as three-hundred level courses to meet the University requirement of a minimum number of third-year courses.

Required Courses

Single-major Ordinary program. Minimum six courses in Economics

Economics 100
200
300

Joint-major Ordinary program. Minimum five courses in Economics

Same required courses as for single-major

Single-major Honours program. Minimum nine courses in Economics

Economics 100
200
300
400

Joint-major Honours program. Minimum seven courses in Economics at least two of which must be at *four-hundred* level unless either *Economics 320* or *325* is substituted.

Recommended Additional Courses

Mathematics 100
Statistics 100

Economics 100

Introductory economic analysis. A course intended to provide a basic understanding of the major theoretical and policy areas in Economics. The main areas studied are: employment, unemployment, inflation and government fiscal policy, money, Canadian banking and monetary policy; market supply and demand and the behaviour of business firms,

international trade, tariffs, the balance of payments and foreign exchange rates. Lectures and discussions three hours weekly.

D. C. A. Curtis and staff

Economics 200

The price system. A theoretical analysis of conditions for rational allocation of scarce resources by buyers and sellers in different types of markets. Empirical material relating to government intervention in consumer choice, pricing in agriculture, price and wage controls, price leadership, price determination, and structure and performance of oligopoly and monopoly. Two lectures weekly, one seminar fortnightly.

K. S. R. Murthy

Economics 210

Public finance. Government expenditure structure (theoretical and practical); welfare economics of the public sector; tax structure, tax incidence and effects; fiscal federalism; fiscal policy. Two lectures weekly, tutorial fortnightly.

Economics 220

Monetary economics. Theoretical and institutional aspects of money and their relationship to economic activities and policies. Two lectures weekly, seminar or tutorial fortnightly.

Economics 300

Macroeconomic theory and policy. National accounting; determination of national income and output; IS-LM approach, Keynesian vs. Classical theory. Aims, techniques and limitations of monetary and fiscal policies; inflation, guidelines and trade-offs; external constraints; recent macroeconomic policy. Two seminars weekly, tutorial fortnightly.

D. C. A. Curtis

Economics 310

International economics. Trade theory, tariffs and regional integration with special reference to Canada; foreign exchange markets and exchange rates; balance of payments and its adjustment; international financial institutions in historical perspective. Lectures and tutorials.

W. T. Hunter

Economics 320

Introduction to econometrics. (Not offered in 1974-75.)

Economics 325

Mathematical economics and economic models. Application of simple mathematical tools to the problems in Economics, simple and constrained optimization, equilibrium analyses, comparative statics and dynamics, introduction to linear programming. Use of mathematics in building simple micro and macro economic models and their analyses. Two lectures, seminar weekly.

K. S. R. Murthy

Economics 330

Development economics. Economic policy and planning in low-income countries including population growth, agricultural productivity, transfer of technology, aid, trade, inflation, taxation, and income distribution. Diversity of experience in several countries is studied in depth. Occasional lectures, weekly seminars, fortnightly tutorials.

M. J. Boote

Honours Program

Individual programs are arranged in consultation with the department; as a year of specialized study, the program is intended to meet admission requirements for graduate work elsewhere. *Economics 400 (Topics in Modern Economic Theory)* is a required course; the remainder of the program is made up of half courses from among the following fields: monetary theory, public finance, industrial organization, urban economics, modern economic thought, Canadian economic development, and trade and development with special reference to Latin America.

English Literature

Professor of English Literature and Chairman of the Department

James Winny, M.A., PH.D. (CAMBRIDGE)

Professors

R. D. Chambers, B.A. (MCGILL), B.LITT. (OXFORD); Barbara E. Rooke, M.A. (QUEEN'S), PH.D. (LONDON); Gordon Roper, M.A., PH.D. (CHICAGO)

Associate Professors

B. L. Beach, B.A. (ACADIA), M.A. (DALHOUSIE), PH.D. (MCGILL); A. G. Fisher, M.A. (SASKATCHEWAN); S. F. Gallagher, B.A., (IRELAND), M.A. (WESTERN ONTARIO), PH.D. (IRELAND); Ian McLachlan, M.A. (OXFORD); Elizabeth M. Orsten, M.A. (OXFORD), PH.D. (TORONTO); R. H. Sadleir, B.A. (TORONTO), M.A. (CAMBRIDGE)

Assistant Professors

M. S. Berkowitz, B.A. (NEW YORK), M.A., PH.D. (MASSACHUSETTS); R. J. Dellamora, A.B. (DARTMOUTH COLLEGE), B.A. (CAMBRIDGE), M. PHIL., PH.D. (YALE); G. D. Eathorne, B.A. (NEW ZEALAND), M.A. (CANTERBURY); D. K. Glassco, B.A. (QUEEN'S); Gordon A. Johnston, B.A. (TORONTO), M.A. (HARVARD); Sean Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); O.S. Mitchell, M.A. (ALBERTA), PH.D. (LONDON); J. E. Neufeld, B.A. (TORONTO), M.A., PH.D. (CHICAGO); Michael Peterman, B.A. (PRINCETON), M.A. (TORONTO); Carolyn Tate, B.A. (BRITISH COLUMBIA), M.A. (MCGILL), (on leave, 1974-75); J. M. Treadwell, B.A. (TORONTO, CAMBRIDGE); F. B. Tromly, B.A. (GRINNELL), M.A., PH.D. (CHICAGO)

Note

The department is introducing a new curriculum, designed to give greater diversity to English studies by varying the field and scope of interest in the different courses. The main syllabus will include (i) literary periods dominated by an outstanding writer; (ii) literary topics or kinds associated with particular literary periods, though not confined to them; (iii) special subjects, special authors, and short periods of literary activity, and (iv) modern English, Canadian and American literatures. The department emphasizes this diversity of approach, and advises students to choose their courses, as far as possible, so that they divide their attention between the different kinds of study.

Some courses in English Literature are grouped generally in time periods. The groupings are:

A	B	C	D	E
1350 to 1550	1550 to 1642	1642 to 1750	1750 to 1900	1900 to 1970
331	250	201	210	340
332	251	300	211	341
		301	230	350
			320	360
			321	371
			370	385

Required Courses

Single-major Ordinary program. Minimum six courses in English. Four of these courses are to be chosen from different time periods listed above.

Joint-major Ordinary program. Minimum five courses in English. Three of these courses are to be chosen from different time periods listed above.

Single-major Honours program. Minimum ten courses in English. At least one course must be chosen from each of the time periods listed above. In addition *English 400* and at least one additional *four-hundred* series course.

Joint-major Honours program. Minimum eight courses in English. Program to be established in consultation with the department.

Special Provisos

Students may elect to take one course in Classical Literature or in Comparative Literature as one of the optional courses required in the major and Honours programs in English. Students are not allowed to take both first year courses in the same year.

English 105

Studies in literature. The course provides an introduction to a variety of critical approaches through the study of repre-

sentative British and American works of the transitional period 1880 to 1930. For historical context, it looks back to the Victorian age and forward to more recent writing. Minimum of one lecture hour weekly and fortnightly tutorials.

M. Peterman and staff

English 120

The hero. A study of representative figures of English and American Literature who embody the particular ideals and human outlook current during the main literary periods from Beowulf to the present. Weekly lectures and fortnightly tutorials.

Second- and Third-Year Courses: The first digit suggests the year of study in which the course might normally be taken, but any second- or third-year course is open to any second-, third-, or fourth-year student.

English 201

Milton and his age. Attention will be divided between the work of Milton, and that of other English writers of the period 1625-1675. Minimum of one lecture hour weekly and fortnightly tutorials.

F. B. Tromly and staff

English 210

Wordsworth and his age. (Offered in 1975-76 and alternate years.)

English 211

Imagination, dream and vision. Primarily concerned with the definition and validity of the imagination in the Romantic period (roughly, Blake to Arnold), this course will also examine the use of vision and dream in that and other periods of English literature. Minimum of one lecture weekly and fortnightly tutorials.

English-German 220

Modern German literature in translation. See *German 220*.

English 230

Studies in nineteenth century American literature. Minimum of one lecture hour weekly and fortnightly tutorials.

G. Roper and staff

English 240

Man and nature. Studies in the relationships between man and nature, as reflected in the works of some English and American writers from the Middle Ages until the present day. Minimum of one lecture hour weekly and fortnightly tutorials.

M. S. Berkowitz and staff

English 250

Shakespeare and his age. The course examines selected plays of Shakespeare in the context of the dramatic works of such contemporaries as Jonson, Marlowe, Kyd, and Webster. Minimum of lecture weekly and fortnightly tutorial. (Offered in 1974-75 and alternate years.)

G. Fisher and staff

English 300

Pope and his age. (Offered in 1975-76 and alternate years.)

English 301

Utopia and anti-Utopia. A study of selected writings, from Plato to Orwell, which express the utopian impulse and the satiric reaction of anti-utopia. Minimum of lecture weekly and fortnightly tutorial.

R. D. Chambers and staff

English 321

Literature and society. Nineteenth century studies, mainly Victorian, in relations of culture and society. Among the authors included: Dickens, Eliot, Hardy, Mrs. Gaskell, Darwin, Mill, Ruskin, Arnold and Tennyson. Minimum of lecture weekly and fortnightly tutorial.

R. Dellamora and staff

English 331

Chaucer and his age. Attention will be equally divided between the works of Chaucer, especially *The Canterbury Tales*, and other English writers and literary interests of the fourteenth century. This course is intended as complement to the medieval part of *English 332*. Weekly lectures and tutorials.

J. Winny and staff

English 332

Chivalry. (Offered in 1975-76 and alternate years.)

English 341

The Twenties. The twenties is a period course in which this decade will be studied from different points of view. The central emphasis will be a literary one but lectures will be given on other aspects such as art, music, philosophy and history. Lecture weekly, two-hour tutorial weekly.

G. Eathorne and staff

English 350

Modern drama. Studies in the work of recent English, Irish and American dramatists. Minimum of one lecture hour weekly and fortnightly tutorials.

S. F. Gallagher

English 360

Studies in Canadian literature. One seminar weekly.

G. Johnston and staff

English 370

The English novel, 1700-1900. Minimum one lecture hour weekly and fortnightly tutorials. (Offered in 1974-75 and alternate years.)

J. M. Treadwell and staff

English 371

The novel 1900-1970. (Offered in 1975-76.)

English 385

The creative process. A study of theories of creativity in the period 1880-1930, and of their relationship with the actual practice of some major writers of the period.

I. McLachlan

English 390

Literature and psychology. This course will consist of an examination of some aspects of literature and psychology. Of particular importance will be the development of the writer's insight into personality, growth and variation as shown by the unfolding of personality development in his work. Use will be made of biographical and autobiographical material where it is available. The concept of creativity will also be examined. Minimum of one lecture hour weekly and fortnightly tutorials. Prerequisite: A first-year English course. Enrolment restricted to 30.

B. L. Beach

Fourth-year Courses: Fourth-year courses are normally limited to students in the fourth or Honours year of studies in English. Before the end of Winter Term of second year, students may petition the department for permission to enrol in a fourth-year course as part of a third-year program.

English 400

Honours colloquium.

J. Winny

English 410

Theory and history of literary criticism.

J. Neufeld

English 420

Advanced studies in Shakespeare.

F. B. Tromly

English 431

Studies in Old English language and literature.

E. M. Orsten

English 450

Advanced studies in modern American literature.

G. Roper

English 490

Special author or topic. A list of topics for selection will be circulated by the department to students who have been admitted to Honours.

English 491

Research study. The course allows the student to select, with the approval of the department, his own area for research study which he then pursues under the direction of a member of the department. Students are advised that calendar deadlines for registration in courses apply to *English 491*.

French Studies

Professor of French and Chairman of the Department
Frederick K. Harper, M.A. (MANITOBA)

Associate Professors

C. E. J. Caldicott, M.A. (DUBLIN), D.E.S. (AIX-MARSEILLES), PH.D. (DUBLIN) (on leave 1974-75); J. M. A. LeDreff, M.A. (BRITISH COLUMBIA); Terence Mellors, M.A. (OXFORD); Peter Royle, M.A. (OXFORD), PH.D. (NATAL) (on leave 1974-75).

Assistant Professors

A. E. Franklin, M.A. (CAMBRIDGE, TORONTO); Jean-Pierre Lapointe, B.A. (R.M.C.), M.A. (MCGILL); Janette Reardon, L.-E.S.-L. (PARIS), B.A. (MEMORIAL), M.-ES.-L. (NANTES)

Required Courses

Single-major Ordinary program. Minimum six courses in French

French 110
200
211

Joint-major Ordinary program. Minimum five courses in French

Same required courses as for single-major

Single-major Honours program. Minimum ten courses in French

French 110
200
211

Four *four-hundred* series courses or their equivalent

Joint-major Honours program. Minimum eight courses in French

French 110
200
211

Five additional courses, two of which must be at the *four-hundred* series level

Students who, in 1974-75 or thereafter, declare for the first time a single- or joint-major Ordinary program, or a single- or joint-major Honours program in French must include in their program at least one course in French-Canadian Literature or Civilization.

French 100

An intensive course in oral and written French. This course will be taught to homogeneous groups of about ten students each: a) beginners, b) those with some high school French, c) those with Grade 13 French or its equivalent, but with inadequate background to cope with *French 110*. No prerequisite. Five hours weekly.

A. E. Franklin, J.-P. LaPointe and staff

French 110

The basic freshman course in language and literature normally required of students intending to major in French. Each student will take weekly one hour of language seminar, one hour of laboratory practice, and will opt for one lecture and one literature seminar involving the critical analysis of selected texts in one of the two following areas: a) Metropolitan France, or b) French Canada. Prerequisite: Grade 13 French, its equivalent, *French 100* or permission of department. Four hours weekly.

T. Mellors and staff

French 100 and French 110 may not be taken concurrently without permission of department.

All 200 series courses, with the exception of French 200, may be counted as 300 series courses.

French 200

Oral practice, prose translation, phonetics, and laboratory practice. *Required for a major in French*. Prerequisite: *French 100* or *French 110*, or permission of department. Three hours weekly.

J. Reardon and staff

French 211

The classical French theatre. *Required for a major in French*. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

J. M. Le Dreff

French 231

Poetry and drama of the nineteenth century. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

T. Mellors

French 250

Quebec civilization. A general survey of the social and cultural history of the Quebec people, illustrated by readings on the arts, letters, religious, social and political life. This course is an attempt to synthesize the history of ideas in Quebec in order to promote a better understanding of the determining factors in contemporary Quebec culture. Prerequisite: *French 100* or *French 110* or permission of department. Lecture, and one seminar weekly.

J.-P. Lapointe

French 251

Quebec civilization. A special course in Quebec civilization, identical with *French 250* except that the language of instruction will be English. This course does not give credit toward a French major nor may it be credited where a person has or will have credit for *French 250*. Essentially the course is designed for students in other disciplines who have an interest in French Canada and who are able to read French while being unable to carry out discussion in French or to understand lectures given in French. Lecture, and one seminar weekly.

J.-P. Lapointe

French 300

Translation, philology and laboratory practice. Prerequisite: *French 200*. Three hours weekly.

J. Reardon

French 310

The nineteenth century French novel. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

T. Mellors

French 320

Modern French theatre. (Not offered in 1974-75.)

French 321

Modern French theatre: Claudel, Giraudoux, Anouilh, Sartre, Ionesco, Beckett. Texts used will be in French, but the language of instruction will be English. Not open to French majors. No prerequisite.

T. Mellors

French 325

French-Canadian poetry and drama. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

J.-P. Lapointe

French 330

French prose and poetry of the eighteenth century. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

F. K. Harper

French 340

The contemporary novel. Gide, Camus, Sartre, Malraux, Le Nouveau Roman. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

French 350

Contemporary French civilization. (Not offered in 1974-75.)

French 370

The 'libertine' tradition in French literature. (Not offered in 1974-75.)

French 390

French-Canadian prose literature. (Not offered in 1974-75.)

Four-hundred series courses are open only to students in the fourth or Honours year of studies in French, or by permission of the department.

French 400

Linguistics, Stylistics, and composition. Two hours weekly.

J. Reardon

French 410

Medieval French language and literature. (Not offered in 1974-75.)

French 420

French literary criticism. Two tutorials weekly.

J. M. Le Dreff

French 430

Initiation to literary research. Two tutorials weekly.

Staff

French 440

French Renaissance, sixteenth century, with intensive study of Rabelais, Montaigne, Marot, Ronsard, DuBellay and D'Aubigné. Two tutorials weekly.

J. M. Le Dreff

French 450

Studies in modern French poetry. Two tutorials weekly.

F. K. Harper

French 460

Studies in contemporary non-metropolitan French literature. (Not offered in 1974-75.)

French 480

Studies in French thought of the nineteenth century. (Not offered in 1974-75.)

Geography

Professor of Geography and Chairman of the Department
W. P. Adams, B.A. (SHEFFIELD), M.SC., PH.D. (MCGILL) (on leave 1974-75)

Acting Chairman

A. G. Brunger, B.SC. (SOUTHAMPTON), M.SC. (ALBERTA)

Associate Professors

G. A. Nader, B.A. (LONDON), PH.D. (DURHAM); F. M. Helleiner, M.A., PH.D. (WESTERN ONTARIO)

Assistant Professors

J. S. Marsh, B.A. (READING), M.SC. (ALBERTA), PH.D. (CALGARY); one to be appointed.

Lecturer

C. H. Taylor, M.A. (CANTERBURY), PH.D. (MCGILL)

Visiting Professor

A. J. Conacher, M.A. (AUCKLAND)

Required Courses

Single-major Ordinary program. Minimum six courses in Geography

Geography 101

201

300

Statistics 100 and *Geography 390b* recommended.

Joint-major Ordinary program. Minimum five courses in Geography

Same required and recommended courses as for single-major.

Single-major Honours program. Minimum eleven courses in Geography

Geography 101

201

300

400

410

Statistics 100

Geography 390b is highly recommended

Joint-major Honours program: Minimum eight courses in Geography.

Same required and recommended courses as for single-major Honours program.

Recommended Courses

The attention of students in Geography is drawn to *Mathematics 100*, *Philosophy 270*, *Computer Science 200a*.

Students intending to teach are advised to include a regional course; the Geography of Canada is particularly useful. The Canadian Studies Program can complement a Geography program.

Geography 101

Man in the environment. The course serves to indicate the scope and methods of geography. Attention centres on man's interaction with a variety of environmental systems (*e.g.* geomorphic, meteorological, ecological) and his use of distinctive areas (*e.g.* deserts, mountains, cities, the North and tropics). Emphasis is placed on concepts, problems, research methods and Canadian examples. Laboratory exercises and field work involve a variety of techniques including map and air photo interpretation, meteorological observation, land use mapping, and computer methods. The lectures are complemented by films, guest speakers and discussions, totalling four hours weekly.

J. S. Marsh and C. H. Taylor

Geography 201

Methods of geographical analysis. Concepts in geography, data retrieval and sampling, including techniques of plane-survey and photographic-interpretation, processing of geographical data by content analysis, statistical and other methods, presentation and display of results by cartographic, graphical, and quantitative means. Use of computers in geographical analysis. Prerequisite: *Geography 101*. Approximately three hours weekly, lectures, seminars and labs. Field work.

A. G. Brunger and staff

Geography 230

Recreation geography. The course examines environmental, behavioural and management aspects of recreation. There is an emphasis on outdoor recreation, recreation history, water-based recreation, and Canada. A wide variety of teaching methods is employed including field study, laboratory exercises, and a major project. Prerequisite: *Geography 101* or permission of instructor.

J. S. Marsh

Geography 240

Geology. Principles of mineralogy, petrology, palaeontology and structural geology including an introduction to recent developments in the field of global tectonics, mountain building, earthquake and volcanic activity, submarine geology, and continental drift; sedimentary petrology of lake and river environments. Two hours of lectures each week, a two-hour laboratory session every other week, and field work. (Offered in 1974-75 and alternate years.)

Geography 250

Geomorphology. A systematic study of contemporary geomorphic processes and environmental factors influencing the development of landforms; including detailed study of the geomorphic processes associated with rivers, lakes, wind, glaciers, mass wasting, and coasts; analysis of drainage systems and the morphology of landforms; an introduction to laboratory and field techniques. Prerequisite: *Geography 101* or permission of instructor. Three hours of lectures, laboratories and tutorials per week and field work. (Offered in 1975-76 and alternate years, however, a half course, stressing Pedology, will be offered by Professor Conacher before Christmas 1974.)

Geography-Canadian Studies 260

Geography of Canada. See *Canadian Studies 260*

Geography 270

Urban geography. An examination of urban functions, the spatial arrangement of urban centres and the concept of hierarchies; analysis of the internal organization of cities in terms of function, movement and physical layout; an examination of social controls affecting the growth of cities and future patterns of urban development. Prerequisite: *Geography 101* or permission of instructor. Three hours of lectures, seminars, tutorials. (Offered in 1974-75 and alternate years.)

G. A. Nader

Geography 272b

Canadian cities. (Not offered in 1974-75.)

Geography 300

Advanced methodology and techniques of geographical analysis. The role of explanation in geography, spatial theory, hypothesis-formulation and generalization, spatial sampling design, retrieval and analysis of geographical data, including content analysis, remote-sensing and quantitative techniques, use of computers in data analysis and display, advanced cartography. Prerequisite: *Geography 201*. Approximately three hours weekly; lectures, seminars, laboratories, field work.

A. G. Brunger and F. M. Helleiner

Geography 320

Economic geography. (Not offered in 1974-75.)

Geography 330

Historical geography. Aspects of society are studied in time and space at a geographical scale, with a focus of interest in the following areas, diffusion of innovations, nineteenth century migration patterns, colonial settlement in North America, the concept of landscape, and the historical

geography of Southern Ontario and Algonquin Park. Prerequisite: *Geography 101* or permission of instructor. One lecture, and tutorial or seminar weekly, periodic laboratories and field trips. (Offered in 1974-75 and alternate years.)

Geography 332a

Settlement geography. (Not offered in 1974-75.)

Geography 340

Hydrometeorology. (Not offered in 1974-75.)

Geography-Biology 350a

Biogeography: See *Biology 350a*

Geography 352

Advanced geomorphology. Current problems, methodology and techniques in landform research; erosion and sedimentation in a lake district; applied geomorphology, including natural hazards and site investigation with particular emphasis on slope stability. Prerequisites: *Geography 240* or *Geography 250* or permission of instructor. One lecture and one seminar per week with additional laboratory and field work.

Geography 364a

Geography of the Arctic. (Not offered in 1974-75.)

Geography 370

Planning. The main planning principles which govern the economic and physical development of cities and regions. National, provincial, and municipal policies will be examined for their impact on the urban and regional systems. There will also be an examination of the historical development of planning concepts and policies and a comparative analysis of modern planning in North America and Europe. Prerequisites: *Geography 270* or *Geography 272b*. Lectures, tutorials and seminars. (Offered in 1974-75 and alternate years.)

G. A. Nader

Geography 380

Regional economic development. (Not offered in 1974-75.)

Geography 390a

Field course in geography. This course is recommended for all Geography majors, and may be taken in the third or fourth year. It involves an extended period in a selected field area with extensive preparation and follow-up. Prerequisites: *Geography 101, 201*. One lecture, seminar per week, minimum of seven days in the field.

F. M. Helleiner

Geography 400

Dissertation. This course is seen as the culmination of the Honours degree in Geography. Corequisite, *Geography 410*. Throughout the final year, students will engage in a major research project entailing periodic meetings with faculty. A schedule for the submission of research proposals and for the completion of various stages of the project will be set out at the beginning of the year. Students taking this course must obtain full details of it and begin preparation at the end of third year.

F. M. Helleiner and staff

Geography 410

Advanced seminar in geography. Corequisite, *geography 400*. Seminars will be discussion of theses and other related topics.

F. M. Helleiner and staff

German

Professor and Chairman of the Department

G. Baumgaertel, M.A. (BROWN), DR. PHIL. (TÜBINGEN)

Associate Professor

D. D. Stewart, M.A., PH.D. (TORONTO)

Assistant Professors

J. C. Fewster, M.A. (MANCHESTER); A. A. Krueger, STAATSEXAMEN (MUNICH) (on leave 1974-75)

Required Courses

Single-major Ordinary program. Minimum six courses in German

German 110

200

210

Three additional courses at a senior level

Joint-major Ordinary program. Minimum five courses in German

Same required courses as for single-major

Single-major Honours program. Minimum nine courses in German

Same required courses as for Ordinary program

Joint-major Honours program. Minimum seven courses in German

Same required courses as for Ordinary program

Special Provisos

Four-hundred level courses are normally open only to students in the Honours program. To achieve a meaningful combination, majors are urged to coordinate their studies in German with studies in related disciplines.

German 100

Designed for students with little or no knowledge of German. This course provides an introduction to spoken and written German with intensive practice in the language laboratory as well as an introduction to present-day Germany. Two lectures, one seminar, one laboratory hour weekly.

D. D. Stewart and staff

German 110

Introduction to modern German literature, thought, and civilization; comprehensive language review. Designed for students with Grade 13 standing in German, or at least B standing in *German 100* or Grade 12, or equivalent. Students with more informal previous experience of German are encouraged to consult the department. Two lectures, two seminars, one laboratory hour weekly.

J. C. Fewster and staff

German 200

German literature and thought from Nietzsche to Brecht. Modern writers and currents. Oral and written practice in German. Prerequisite: *German 110*, or permission of department. One lecture, two seminars, one language hour weekly.

G. Baumgaertel and J. C. Fewster

German 210

The Age of Enlightenment and *Sturm und Drang*. A study of the beginnings of modern German literature, with special attention to Lessing, Goethe and Schiller. Composition. Prerequisite: *German 110* or permission of department. One lecture, two seminars, one language hour weekly.

J. C. Fewster and D. D. Stewart

German-English 220

Modern German literature in English translation. Representative German authors and their contribution to world literature. An examination of the aesthetic, moral, existential, social and political issues advanced by writers including Büchner, Mann, Kafka, Hesse, Brecht, Dürrenmatt, Frisch, Böll, Grass. Prerequisite: None. Open to students in second year and above or by permission of department. Enrolment limited to approximately 30. Majors in German may attend but may not count this course for credit toward their degree. One lecture, one seminar weekly.

G. Baumgaertel and J. C. Fewster

German 301

Studies in German literature and cultural developments of the period 1780-1832, with special emphasis on Classicism and Romanticism. Composition. Prerequisite: *German 210* or permission of department. Two lectures, one seminar weekly.

D. D. Stewart

German 330a

The German *Novelle* and *Erzählung* of the nineteenth and twentieth centuries. Prerequisite: *German 200* or *210*, or permission of department. One lecture, two tutorials weekly. J. C. Fewster.

German 340b

The drama of social criticism. From classicism to contemporary experimentation: Realism, Naturalism, Expressionism, Epic Theatre, Documentary Theatre. Prerequisite: *German 200* or *210*, or permission of department. One lecture, two tutorials weekly. G. Baumgaertel

German 351a

Studies in modern German poetry. (Offered in alternate years, not in 1974-75.)

German 352b

The German novel from Grimmshausen to the present. (Offered in alternate years, not 1974-75.)

German 400

History of the German language; introduction to medieval and late medieval German literature. (Not offered in 1974-75.)

German 410a

German baroque literature. A survey of seventeenth century German literature in its European context, with attention to the impact of Baroque themes and forms on later German literature. One lecture, one seminar weekly.

D. D. Stewart

German 420b

Studies in recent German literature. One lecture, one seminar weekly.

G. Baumgaertel

German 430

Major Paper.

Note: Students are encouraged to avail themselves of opportunities for study, travel and work in German-speaking Europe, information about which is available through the department.

Hispanic Studies

Acting Chairman of the Department

F. K. Harper, M.A. (MANITOBA)

Professor

J. M. Valverde, LIC.FIL.Y LET., DR.FIL.Y LET. (MADRID), EX-CATEDRATICO (BARCELONA)

Associate Professor

J. P. González-Martin, LIC.DER (OVIEDO), DR.DER. (ZARAGOZA) (on leave 1974-75)

Assistant Professors

G. D. Aitken, B.A. (TRENT), M.A. (STANFORD); Rosa Maria Garrido, LIC.DER., DR.DER. (SEVILLA), M.A. (TORONTO); Dawn L. Smith, M.A. (OXFORD)

Required Courses

Single-major Ordinary program. Minimum six courses in Spanish

Spanish 100 or *110*

200

210 or 211

300

Two of *Spanish 310, 320, 410, 411*

Joint-major Ordinary program. Minimum five courses in Spanish

Spanish 100 or *110*

200

210 or 211

300

One of *Spanish 310, 320, 410, 411*

Single-major Honours program. Minimum ten courses in Spanish

Spanish 100 or *110*

200

210 or 211

300

310

320

400

410

411

Another *four-hundred* level course is to be established by the department.

Joint-major Honours program. Minimum seven courses in Spanish

Intending students are advised to consult the two departments involved as early in their university careers as possible.

Special Provisos

- Students with sufficient previous knowledge of Spanish may be admitted directly to *Spanish 200* and *210* or *211*, at the discretion of the department.
- *Spanish 210* and *211* may be taken concurrently.

Spanish 100

Beginners' course in Spanish. This course consists of an introduction to grammar and reading, and practice in oral Spanish. Texts include a grammar and two readers. Three seminars weekly; one-hour language laboratory weekly.
G. D. Aitken, R. M. Garrido, D. L. Smith

Spanish 110

Designed for students with some previous knowledge of Spanish. Grammar review, composition and conversation. Three seminars and one laboratory hour weekly.
Prerequisite: Grade 13 Spanish, *Spanish 100*, or permission of department.
G. D. Aitken and others

Spanish 200

Continuing Spanish. A general course of Spanish conversation, pronunciation, composition and reading. One two-hour lecture, one-hour seminar and one laboratory hour weekly. Prerequisite: *Spanish 110*, or permission of department.
R. M. Garrido, D. L. Smith

Spanish 210

Introduction to Spanish and Spanish-American civilization. (Not offered in 1974-75)

Spanish 211

A survey of Spanish and Spanish-American literatures from the origins to the present. One lecture, one seminar weekly. Conducted in Spanish. Students enrolled in this course normally are also required to register in *Spanish 110* or *Spanish 200*.
R. M. Garrido

Spanish 300

Advanced oral Spanish and composition. An analytical study of the elements required in the use of Spanish, especially in writing, with a consideration of the Spanish-American peculiarities. Lecture, two seminars weekly.
R. M. Garrido

Spanish 310

Spanish literature, contemporary period. Spanish literature since the generation of 1898. Lecture, seminar weekly.
J. M. Valverde

Spanish 320

Spanish-American literature. The literature of the Spanish-speaking countries of Central and South America, with its historical and social background. Lecture, seminar weekly.
J. M. Valverde

Spanish 321

Spanish-American literature in translation. The literature of the Spanish-speaking countries of Central and South America, with its historical and social background. Texts for this course will be in English and the language of instruction will be English. This course is not open to Spanish majors. Lecture, seminar weekly.
J. M. Valverde

Spanish 330

Spanish literature of the Golden Age. An introduction to the literature and thought of the Renaissance and Baroque periods based on selected authors and topics. Two seminars weekly.
D. L. Smith

Spanish 400

Honours seminar leading to the completion of an undergraduate thesis, with problems of bibliography and literary criticism.
All faculty

Spanish 410

Cervantes and the novel. A study of the principal works of this major writer in relation to the period in which they were written. Two tutorials weekly.
D. L. Smith

Spanish 411

History of the Spanish language and Spanish medieval literature. Mainly intended for Honours students, but also open to third-year students. Lecture, seminar weekly.
R. M. Garrido

Spanish 412

A course on some period of Spanish literature.

Spanish 413

A course on some author or problem of Spanish literature.

Spanish 420

A course on some author or problem of Spanish-American literature.

History

Associate Professor of History and Chairman of the Department

F. A. Hagar, A.B. (HARVARD), M.A., PH.D. (CALIFORNIA), M.LITT. (CAMBRIDGE)

Vanier Professor of Canadian History

W. L. Morton, O.C., B.A. (MANITOBA), M.A., B.LITT. (OXFORD), LL.D. (TORONTO), D.LITT. (NEW BRUNSWICK), MCGILL, MANITOBA), F.R.S.C., F.R.HIST.S. (on leave 1974-75)

Professors

John Gilchrist, B.A., PH.D. (LEEDS); B. W. Hodgins, B.A. (WESTERN ONTARIO), M.A. (QUEEN'S), PH.D. (DUKE); D. S. Macmillan, M.A. (GLASGOW), PH.D. (SYDNEY), F.R.A.H.S.; Alan Wilson, M.A. (DALHOUSIE), PH.D. (TORONTO)

Associate Professors

J. C. Barker, M.A. (CAMBRIDGE, TORONTO), M.DIV. (YALE), PH.D. (TORONTO); C. M. Greene, A.B. (AMHERST), A.M. (COLUMBIA), PH.D. (HARVARD); Brian Heeney, B.A. (TORONTO), B.D. (EPISCOPAL THEOLOGICAL SCHOOL), D.PHIL. (OXFORD); Douglas McCalla, B.A. (QUEEN'S), M.A. (TORONTO), D.PHIL. (OXFORD); R. J. D. Page, M.A. (QUEEN'S), D.PHIL. (OXFORD)(on leave 1974-75); W. G. Pitman, M.A. (TORONTO); S. T. Robson, B.A. (BRITISH COLUMBIA), D.PHIL. (OXFORD); Deryck M. Schreuder, B.A. (RHODES), D.PHIL. (OXFORD); T. H. B. Symons, B.A. (TORONTO), M.A. (OXFORD), LL.D. (WATERLOO LUTHERAN, NEW BRUNSWICK, YORK) (on leave 1974-75)

Assistant Professors

E. H. Jones, B.A. (SASKATCHEWAN), M.A. (WESTERN ONTARIO), PH.D. (QUEEN'S); S. D. Standen, B.A. (BRITISH COLUMBIA), M.A. (OREGON); John Syrett, B.A. (COLUMBIA), M.A., PH.D. (WISCONSIN)

Lecturers

A. O. C. Cole, M.A. (TORONTO); J. D. P. Martin, B.A. (QUEEN'S), B.L.S. (MCGILL)

Required Courses

Single-major Ordinary program. Minimum six courses in History

History 100 or 120

Two of *History 200, 211, 220, 230*

Three *three-hundred* series courses

Joint-major Ordinary program. Minimum five courses in History

History 100 or 120

Two of *History 200, 211, 220, 230*

Two *three-hundred* series courses

Single-major Honours program. Minimum nine courses in History

Same requirements as for single-major Ordinary program plus at least two *four-hundred* series courses and one *three-hundred* series course

Joint-major Honours program. Minimum eight courses in History

Same requirements as for joint-major Ordinary program plus at least two *four-hundred* series courses

Special Provisos

— Departures from patterns above must be authorized by the department through the Chairman.

— Except where otherwise indicated, courses are open to all qualified students, but students seeking admission to *four-hundred* series courses before qualifying for the Ordinary degree must apply to the instructor and be authorized by the Chairman.

History students, particularly freshmen, should be aware that a graduate student is regularly available to them for advice and assistance as a departmental tutor in history.

History 100

An introduction to interpretative history, illustrated by the Canadian experience. Weekly lectures and weekly group discussions examine major problems in historical development and interpretation in Canada. Each student will concentrate on one of the following areas in tutorials: a) Canada, 1600-1870; b) Canada, the nineteenth century; or c) Canada since 1840.

S. D. Standen and staff

History 120

The study of history today. An examination of leading approaches and interpretations, choosing topics from European and North American history for particular illustration. Weekly lectures and tutorials.

J. C. Barker and staff

History 200

The expansion of Europe from 1400 to 1825. Selected topics concerning the background to European expansion, and the economic and political effects of this process in the world outside Europe. Lecture weekly, two-hour tutorial fortnightly.

D. S. Macmillan

History 211

American history. Social, economic and political developments from the American Revolution through the Civil War to the end of the nineteenth century. Lecture and tutorial weekly.

E. H. Jones and J. Syrett

History

History 220

Modern European history. Revolution, reform and industrialism in the nineteenth and twentieth centuries. Lecture weekly, tutorial fortnightly.
C. M. Greene and S. T. Robson

History 230

Urban Canada, 1760-1920. A course in economic and social history; the development of and responses to urbanization in nineteenth century Canada. Lecture, tutorial weekly.
E. H. Jones and D. McCalla

History-Politics 300

Canadian history and politics. Selected topics in the development of Canadian federalism. Seminars and tutorials, with occasional lectures.
B. W. Hodgins

History 301

Early French Canada. Selected topics in government and society to 1840. Lecture, tutorial weekly.
S. D. Standen

History 310

American history. Social, intellectual and political aspects of the reform tradition since 1896, with attention to foreign policy as well as domestic. Lecture weekly, two-hour tutorial fortnightly.
A. Wilson

History 311

Colonial America. (Not offered in 1974-75.)
F. A. Hagar and E. H. Jones

History 320

Modern British history since the Industrial Revolution. Selected themes in the making of modern British society, government and empire, with special emphasis on Victorian England. Lecture weekly; tutorial fortnightly.
D. M. Schreuder and B. Heeney

History 330

German history from 1848 to 1939. Selected problems concerning the political, social, and economic history of the Germans. Two lectures, two tutorial hours fortnightly.
S. T. Robson

History 340

Modern imperialism in Africa and Asia, 1850-1950. Selected problems concerning imperial ideology, European expansion, colonialism, primary resistance and the origins of Third World nationalism. Lecture weekly, tutorial fortnightly.
D. M. Schreuder

History 350

History of France from the death of Louis XIV to 1900. The course will focus on the French Revolution, its causes in the eighteenth century and its resolution in the nineteenth century. Weekly lecture and two-hour tutorial fortnightly.
C. M. Greene

History 360

Medieval Europe. A course of medieval studies with particular reference to the period 1048-1348. Selected topics concerning social, economic, cultural, and ecclesiastical developments. Lecture and tutorial weekly.
J. G. Gilchrist

History 370

Russian history. A study of the development of the Muscovite State and of the Tsarist Autocracy, with some attention to the development of the reform and revolutionary movements. Lecture weekly, two-hour tutorial fortnightly.
D. S. Macmillan

History 380

British history in the early modern era: 1461-1783. Lecture weekly, two-hour tutorial fortnightly.
F. A. Hagar

History 390

Reformation Europe. A course of studies with particular reference to the first half of the sixteenth century. Selected topics related to the theological and socio-economic aspects of the period. Lecture, tutorial weekly.
J. G. Gilchrist

History-Politics 400

Contemporary Canadian problems. (See *Politics 400*.)

History 401

The growth of the British North American provinces. (Not offered in 1974-75.)

History 402

Late Victorian Canada. (Not offered in 1974-75.)

History 410

Social and political traditions and ideas in the U.S. and Canada, since 1896. Two-hour seminar fortnightly, occasional lectures.
A. Wilson and B. W. Hodgins

History 411

Contemporary American. (Not offered in 1974-75.)

History 415

The American South. Social, intellectual and political developments from the colonies to the present. Special emphasis will be given to the effects of black-white relations between the Revolution and the First World War.
J. Syrett

History 420

The Industrial Revolution. An advanced survey, emphasizing conflicting interpretations of this fundamental theme in modern history. The course will focus on the economic history of Britain and Europe in the eighteenth and nineteenth centuries.

D. McCalla

History 451

The Scientific Revolution. An advanced study of the intellectual development in Europe during the seventeenth and eighteenth centuries, reviewing the course of scientific discovery and the growth and effects of the scientific outlook on representative ideas and institutions. Lecture weekly, tutorial fortnightly.

J. C. Barker

History-Philosophy 470

Philosophy of history. A study of history as a form of enquiry, with special reference to problems of explanation, objectivity and the historical individual; also an examination of some general interpretations of the historical process.

Offered jointly by the staff in Philosophy and History. During the Spring Term, students majoring in History may elect individual work with members of the staff in History. Lectures and discussions in one two-hour session weekly.

W. H. Dray

History 480

Reading course. Special topics, designed to provide an opportunity for more intensive study of particular topics. Open to fourth-year honours undergraduates in history and to some third-year students by special application to the department. Regular consultation and direction during the academic year.

Mathematics

Professor of Mathematics and Chairman of the Department
A. P. Guinand, B.Sc. (ADELAIDE), D.Phil. (OXFORD)

Professors

Cyril Carter, B.Sc., Ph.D. (LONDON); T.E.W. Nind, M.A. (CAMBRIDGE)

Associate Professors

I. C. Chakravartty, M.Sc. (GAUHATI), Ph.D. (SASKATCHEWAN); G. F. Hamilton, B.A.Sc., M.A., Ph.D. (TORONTO), P.Eng.; J. P. Henniger, M.Sc., Ph.D. (MCGILL) (on leave 1974-75); E. A. Maxwell, M.Sc., Ph.D. (TORONTO); T. N. Murphy, B.Sc. (LIVERPOOL)

Required Courses

Single-major Ordinary program. Minimum six courses in Mathematics

Mathematics 100

130

200

220 or 230

300

Joint-major Ordinary program. Minimum five courses in Mathematics

Mathematics 100

130

200

300 or 301

Single-major Honours program. Minimum eleven courses in Mathematics.

Same requirements as for single-major Ordinary program plus

Mathematics 220

230

401

Three additional *three-hundred* or *four-hundred* series courses in Honours year.

Joint-major Honours program. Minimum seven courses in Mathematics.

Same requirements as for joint-major Ordinary program plus: *Mathematics 220* or *230*.

Two additional *three-hundred* or *four-hundred* series courses in honours year.

Special Provisos

— Students intending to proceed to Honours should consult the Chairman of the department as soon as possible after the end of their second year.

— Students with a suitable mathematics background may take *Mathematics 100* and *Mathematics 130* or *241* (but not both) in first year.

— Normal prerequisites for other courses may be waived in appropriate cases by permission of the department.

Mathematics 100

Differential and integral calculus, selected topics from other areas of mathematics. Three hours weekly. The course will be divided into sections: a) one section with emphasis on theory; b) one or two sections with emphasis on applications. Transfer between sections is permitted up to

Mathematics

November 1. Prerequisite: At least one Grade 13 Mathematics credit or equivalent.

I. C. Chakravartty and staff

Mathematics 130

Set theory and logic, linear algebra, number systems. Two lectures weekly, tutorial fortnightly.

T. N. Murphy and staff

Mathematics 200

General mathematics. Partial differentiation, multiple integrals, differential equations, elementary properties of a complex variable, infinite series, and the co-ordinate geometry of lines, planes and spheres in three dimensions. Prerequisite: *Mathematics 100*. Two lectures weekly, tutorial fortnightly.

I. C. Chakravartty

Mathematics-Physics 210

Applied mathematics as found in the classical mechanics of particles, rigid bodies and continuous media. Introduction to Lagrangian mechanics. Prerequisite: *Mathematics 100*. Two lectures weekly and tutorial fortnightly.

G. F. Hamilton

Mathematics 220

Linear algebra. (Offered in 1975-76 and alternate years.)

Mathematics 230

Modern algebra. Groups, rings and fields. Prerequisite: *Mathematics 130*. (Offered in 1974-75 and alternate years.)

T. N. Murphy

Mathematics 241

Numerical methods. This course provides an introduction to computer science and the solution of mathematical problems on a computer. *Computer Science 200a* constitutes the first half of the full course. Prerequisites: *Mathematics 100* or permission of the department. Two lectures weekly, periodic computer workshop. In exceptional cases it can also be taken without *Computer Science 200a* as *Mathematics 241b* for a half course credit.

J. Jury and C. Carter

Mathematics-Statistics 250

Mathematical statistics. An introduction to probability theory and mathematical statistics. Prerequisite: *Mathematics 100*. Two hours weekly.

E. A. Maxwell

Mathematics 300

Analysis. The real and complex number system, sequences and series, metric spaces, Riemann integration, improper and infinite integrals, analytic functions, Taylor's, Laurent's and Liouville's theorems, Cauchy's theorem and the residue

calculus, conformal mappings. Prerequisite: *Mathematics 200*. Two lectures weekly, tutorial fortnightly.

A. P. Guinand

Mathematics 301

Analytic techniques. Some of the techniques developed in the solutions of ordinary and partial differential equations, which include: Fourier Series and Integrals, the Laplace Transform, perturbation techniques, orthogonal functions and the Sturm Liouville problem, functions of a complex variable, special functions and the calculus of variations. Prerequisite: *Mathematics 200*. Two lectures weekly and tutorial fortnightly.

G. F. Hamilton

Mathematics 321

Geometry. Analytic, projective, and differential. Prerequisites: *Mathematics 130, 200*. Two hours weekly.

A. P. Guinand

Mathematics 322

Number theory and classical algebra. (Offered in 1975-76 and alternate years.)

Mathematics 332

Topology. Elementary general topology, identification spaces, the fundamental group. Two hours weekly.

T. N. Murphy

Mathematics 341

Mathematical programming. Classical optimisation theory, linear programming, Kuhn-Tucker conditions, non-linear programming, integer and dynamic programming. Prerequisites: *Mathematics 200* and *241*. Two seminars weekly.

C. Carter

Mathematics 342

Numerical analysis. Linear computation, polynomial approximations, numerical solution of ordinary and partial differential equations, simulation methods. Prerequisites: *Mathematics 200* and *241*. Two seminars weekly.

Mathematics-Statistics 351

Experimental statistics. Linear statistical models, regression analysis, design and analysis of experiments. Prerequisite: *Mathematics 250* and knowledge of basic linear algebra. Two hours weekly.

E. A. Maxwell

Mathematics-Statistics 352

Inference. A general survey of the philosophies and techniques in inference. Prerequisite: *Mathematics 250*. Two hours weekly.

Mathematics-Philosophy 392

Reading-seminar course, or half-course, on a topic linking philosophy and mathematics. Topic will be announced by the departments by April 15 of the preceding year. Prerequisite: permission of either department. Second year students not normally admitted.

T. E. W. Nind, K. Rautenkranz

Mathematics 401

Special honours topic. Details will be arranged individually in consultation with the Chairman of the department.

Mathematics 431

Algebra. Category and functor, universal elements, rings, principal ideal domains, modules, structure of groups, Sylow and Jordan-Hölder theorems. Prerequisite: *Mathematics 230*.
T. N. Murphy

Statistics 100

See section on Interdisciplinary Studies at beginning of Courses of Study.

In addition fourth-year courses may be made available in the following areas of study, subject to discussion with the department: Function Theory, Number Theory, Topology, Geometry, Hydrodynamics, Non-linear Programming and Mathematical Statistics.

Native Studies

Professor of Native Studies and Chairman of the Department

Walter Currie, B.A. (WESTERN ONTARIO), LL.D.
(LAURENTIAN)

Professor Emeritus

K. E. Kidd, M.A. (TORONTO), F.R.A.I.

Associate Professor

C. H. Torok, M.A. (BRITISH COLUMBIA), PH.D. (TORONTO)

Assistant Professors

M. J. Castellano, B.A. (QUEEN'S), M.S.W. (TORONTO);
D. N. McCaskill, B.A. (WINNIPEG), M.A. (CARLETON);
H. A. McCue, B.A. (TRENT); R. J. McKay, B.ED., M.A.
(MANITOBA)

Special Lecturers

P. A. Cumming, M.A. LL.B. (MANITOBA), LL.M. (HARVARD);
Malcolm Montgomery, Q.C., B.A. (QUEEN'S)

Required Courses

Single-major Ordinary program. Minimum six courses in Native Studies

Native Studies 100
210

Joint-major Ordinary program. Minimum five courses in Native Studies

Native Studies 100
210

Note

Honours programs are not yet offered in Native Studies.

Recommended Courses

Intending majors are advised to consult the department and this Calendar for cognate courses in such disciplines as Anthropology, Canadian Studies, Geography, History, Politics, and Sociology.

Native Studies 100

An introduction to the contemporary situation of native people in Canada. The course will examine the historical basis of contemporary issues and, using a variety of sources such as government documents, research studies and native writing, will develop a view of native affairs which includes the perspective of the native community. Lectures and seminars will be supplemented by films and guest speakers and a workshop involving native representatives. Two-hour lecture and seminar weekly.

Staff

Native Studies 200

Politics and the native peoples. An analysis of political and administrative processes as they affect native peoples in Canada and the United States — historically and in the contemporary period. The course will examine such topics as treaties and aboriginal rights; revitalization movements; pan-Indianism and "red power"; governmental policy as it affects native peoples; the James Bay power project; the status of native women; the occupation of Wounded Knee; and the ideology, organizational structure, strategies, and tactics of native political associations. Prerequisite: *Native Studies 100* or permission of instructor. Lecture and tutorial weekly.

D. N. McCaskill

Native Studies—Anthropology 201

Native Societies in Canada. See *Anthropology 201*.

Native Studies 210

The Indian identity. A study of native values and personalities in the traditional and contemporary native setting. The course will concentrate on the Algonkian-speaking peoples which include the Ojibway, the Saulteaux, and the Cree in the examination of topics such as the Midewiwin, aggression, joking, child-rearing, Windigo and others. Lectures fortnightly and tutorials weekly.

H. A. McCue

Native Studies 260

Social services and the native people. A study of the current network of health, welfare and supportive services available to native people, their historical development and administrative structure. In the second term attention will be given to cultural factors affecting delivery of services. This course may be taken as a single credit in Native Studies or as a prerequisite for further concentration in applied social services at the third-year level. Details of the third-year program available in 1975-76 will be announced.

Sociology 366a and *Sociology 362b* are recommended as complementary courses for students proposing specialization in social services. Prerequisite: *Native Studies 100* or permission of instructor. Lecture and tutorial weekly. Field trips to agencies serving native people will be arranged.

M. J. Castellano

Native Studies 270

History of the Métis and non-status native peoples of Canada. The origin and history of the Métis peoples of the Prairie Provinces and of the non-status native peoples of Canada from the early period to the twentieth century. Prerequisite: *Native Studies 100* or permission of instructor. Lecture and seminar weekly.

R. J. McKay

Native Studies 300

Native community development. A study of the current processes in native communities to develop a political and cultural consciousness. Special emphasis will be given to the theories and application of community development. Prerequisite: *Native Studies 210* or permission of instructor. Lecture and seminar weekly.

H. A. McCue

Native Studies 320

Urbanization and the native peoples. An analysis of the processes involved in the migration, adjustment and integration of native people into urban areas in Canada. Various assimilation and acculturation models will be critically examined and the urban experiences of the native migrant will be compared with those of members of other ethnic groups. The course will also examine the effects of forces in contemporary society on the economic, social, and cultural life of the rural native community. Prerequisite: *Native Studies 100* or permission of instructor. Lecture and tutorial weekly.

D. N. McCaskill

Native Studies 330

Education and the native peoples. An examination through reading, field trips, and guest lecturers of the contemporary and historical background of the role and of the results of

education upon the native peoples. Prerequisite: *Native Studies 100* or permission of instructor. Lecture fortnightly and two-hour seminar weekly.

W. Currie

Native Studies 340

Law and the Canadian Indian. An examination of the historical processes which have affected the legal status of the native population in Canada. Ample time will be devoted to examining contemporary legal issues, such as aboriginal rights, the Indian Act and treaties, as well as some case law. Lecture and seminar weekly.

M. Montgomery and P. A. Cumming

Native Studies-Anthropology 350

The arts of Africa, Oceania, and the Americas. See *Anthropology 350*. (Not offered 1974-75.)

Native Studies 390

Selected topics in Native Studies. This course is intended for third-year students majoring in Native Studies, and for some second-year students by application to the department, who wish to pursue a study program in an area not listed in the regular offerings, or who wish to carry out independent research. This will be carried out under the supervision of a member of the department. Details must be arranged through the department by April 30 of the preceding year.

Philosophy

Professor of Philosophy and Chairman of the Department
David Gallop, M.A. (OXFORD)

Professors

W. H. Dray, B.A. (TORONTO), M.A., D.PHIL. (OXFORD), F.R.S.C.; J. I. MacAdam, B.A. (NEW BRUNSWICK), M.A. (QUEEN'S), PH.D. (LONDON) (on leave 1974-75); M. L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO)

Associate Professors

J. W. Burbidge, M.A. (YALE), B.D., PH.D. (TORONTO); R. E. Carter, A.B. (TUFTS), B.D. (HARVARD), M.A., PH.D. (TORONTO); Marion G. Fry, M.A. (DALHOUSIE), B.LITT. (OXFORD); W. A. McMullen, M.A., PH.D. (CAMBRIDGE) (on leave Autumn Term 1974)

Assistant Professors

C. V. Boundas, M.A. (PURDUE); Trudy R. Govier, B.A. (ALBERTA), M.A. (CALGARY), PH.D. (WATERLOO) (on leave 1974-75); Alan Orenstein, B.A. (YORK); K. Rautenkranz, B.A. (OREGON STATE), M.A. (ILLINOIS)

Required Courses

Single-major Ordinary program. Minimum five courses in Philosophy

Philosophy 100

210 or 212 strongly recommended

One three-hundred series course

Joint-major Ordinary program. Minimum five courses in Philosophy

Same requirements as for single-major

Single-major Honours program. Minimum nine courses in Philosophy

Philosophy 100

210 or 212

One three-hundred series course

Two four-hundred series courses to be chosen from Special Topics in the History of Philosophy and Special Problems in Philosophy

Joint-major Honours program. Minimum seven courses in Philosophy

Same requirements as for single-major Honours

Special Provisos

– *Philosophy 100*, although not a formal prerequisite, offers a preparation for all other courses in the subject.

– First year students will occasionally be permitted to enrol in upper year courses after consultation with the Chairman.

– Any two-hundred series course may be taken in third year.

– Any three-hundred series course may be taken in second year, with the permission of the instructor.

The Honours year will normally consist of four courses. Further details of the program in Philosophy are given in the departmental *Handbook*, which is obtainable from the office of the secretary to the Chairman.

Philosophy 100

Introduction to philosophy. A study of some fundamental problems and their treatment in a variety of philosophical writings: the existence of God, the relation of mind and body, freedom of the will, the foundations of moral judgment, and the role of reason and sense-perception in our knowledge of the physical world. Weekly lecture, fortnightly tutorial, periodic workshops.

The staff in Philosophy

Philosophy 210

Ancient philosophy. The development of philosophical thought from the Pre-Socratics to Neo-Platonist and Christian thinkers of late antiquity. Special emphasis will be placed upon selected works of Plato and Aristotle. Weekly lecture, weekly tutorial.

D. Gallop and M. G. Fry

Philosophy 212

Early modern philosophy. A study of some seventeenth and eighteenth century writers, including Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, Kant.

W. H. Dray and K. Rautenkranz

Philosophy 214

Existentialism and phenomenology. A systematic examination of philosophical problems in a) literature, art, and drama, b) philosophy and religion, c) philosophy, politics and society, d) metaphysics and epistemology. Texts will be chosen from among the writings of Dostoevsky, Kierkegaard, Nietzsche, Kaffka, Hesse, Husserl, Scheler, Heidegger, Sartre, Camus, Merleau-Ponty, Berdyaev, Buber, Ricoeur. Weekly two-hour seminar.

M. L. Rubinoff and R. E. Carter

Philosophy–Psychology 223b

Philosophy of mind. A study of some mental concepts such as self-knowledge, intelligence, thought, imagination, choice, pain, and the unconscious; and of the logical possibility of surviving death. Weekly two-hour lecture/seminar.

W. A. McMullen

Philosophy 230

Moral issues. A study of such practical problems as sex and marriage, birth control, abortion, suicide, euthanasia, capital punishment, drugs, racial discrimination, revolution and non-violent resistance, with emphasis on their implications for ethical theory. Weekly two-hour seminar.

A. Orenstein and M. L. Rubinoff

Philosophy–Politics 233

Political Philosophy. (See *Politics 233*).

Philosophy 240

Logic. An introductory study of formal logical systems, together with their use in the analysis of various types of arguments, and a discussion of certain problems in the philosophy of logic. Weekly lecture, weekly tutorial.

K. Rautenkranz

Philosophy 270

Philosophy of science. (Offered in 1975-76 and alternate years.)

Philosophy 271b

Philosophy of religion. An examination of the nature and status of religious belief, as discussed or displayed in some recent philosophical and theological writings, with special attention to the roles of reason and emotion in religion, and to the attempt to reduce religious belief to matters of social ethics. Weekly two-hour seminar.

M. G. Fry

Philosophy

Philosophy 272a

Philosophy of art. An introductory study of basic problems of aesthetic theory: the nature and purpose of a work of art, form and content in the arts, the role of art in expressing emotion, the meaning and justification of aesthetic judgments. Readings will be selected from such authors as Plato, Kant, Hegel, Nietzsche, Tolstoy and Collingwood. Weekly two-hour seminar.

A. Orenstein

Philosophy 274a

Philosophy of religion (comparative). An examination of philosophical texts representing some main religious traditions, with a view to determining how their specific differences affect the philosophic formulation of faith. (Offered in 1974-75 and alternate years.)

J. W. Burbidge

Philosophy 311

Medieval philosophy. (Not offered in 1974-75.)

Philosophy 312

The nineteenth century. The main movements of thought as found in selected writings of Fichte, Hegel, Schopenhauer, Marx, Kierkegaard, Nietzsche, Comte, J. S. Mill, Peirce, Bradley, Brentano. Weekly two-hour seminar.

J. W. Burbidge

Philosophy 313

The twentieth century. A detailed study of problems and methods. Texts will be chosen from the writings of Bradley, Collingwood, Moore, Russell, Husserl, Wittgenstein, Austin, Quine, Ricoeur, Whitehead, Dewey, and others. Weekly two-hour seminar. (Offered in 1974-75; not offered in 1975-76.)

C. V. Boundas

Philosophy 320

Metaphysics and epistemology. A study of some traditional problems such as the nature of space and time, causation, existence, universals, knowledge and belief, perception, meaning and truth. Weekly two-hour seminar.

M. G. Fry

Philosophy 330

Ethical theory. A consideration of the role of emotion, will and reason in moral action and judgment. A variety of views will be examined in classical and contemporary philosophers, including some of Hume, Kant, Sartre, Baier and Prichard. Weekly two-hour seminar.

Philosophy-Politics 333

Political Philosophy. (Offered in 1975-76 and alternate years.)

Philosophy-Politics 334

Political philosophy. Liberal and democratic theories in Paine, Bentham, Kant, Mill, and more recent writers: rule of law and popular rule, liberty and happiness, authority, rationality, representation, the significance of empirical research for liberal democratic theory. Offered jointly by Politics and Philosophy. Weekly two-hour seminar. Prerequisite: One course in Politics or Philosophy. (Offered in 1974-75 and alternate years.)

D. Kettler

Philosophy 370a

Philosophy of history. (Not offered in 1974-75.)

Philosophy 372b

Special topics in the philosophy of art: problems of expression. The course will examine closely selected literary and philosophical texts with a view to understanding the relations among text, performance, reading and interpretation. Weekly two-hour seminar. Prerequisite: *Philosophy 272a* or permission of the instructors.

A. Orenstein and J. M. Valverde

Philosophy 373a

Philosophy of education. An enquiry into the nature and aims of education through a study of selected classical and contemporary authors such as Plato, Rousseau, Dewey, Whitehead, Paul Goodman, B. F. Skinner and Ivan Illich. The Hall-Dennis Report will also be considered. Weekly two-hour seminar.

M. L. Rubinoff

Philosophy-Politics 374a

Philosophy of law. An examination of theories of natural and legal justice, of the nature of law itself, of responsibility, *mens rea* and negligence and of the justifications of punishment. Special emphasis will be given to the relevant writings of Plato, Aristotle, Aquinas, Austin, Hart, Fuller and Rawls. Weekly two-hour seminar.

K. Rautenkranz

Philosophy 375b

Philosophy of language. An investigation of the nature and structure of language, traditional theories of communication, the relation between language and thought, the significance of theories of language for traditional philosophic problems.

C. V. Boundas

Philosophy 376a

Philosophy of social science. (Not offered in 1974-75.)

Philosophy-Greek 385

Greek philosophical texts. A study of selected authors in the original Greek. Offered jointly by the staffs in Philosophy and Classics. Prerequisite: *Greek 200* and the permission of the departments. Weekly tutorial.

D. Gallop

Philosophy 390

Reading course. Students will be encouraged to pursue a special interest, largely through independent study. Details will be arranged in consultation with the staff in Philosophy between April 15-30 of the preceding academic year. Periodic tutorials.

Philosophy 391b

Reading course. Similar to *Philosophy 390*, to be taken in conjunction with a half-course in Philosophy offered during the Autumn Term. Requires permission of the department.

Philosophy-Mathematics 392

Reading-seminar course, or half-course, on a topic linking Philosophy and Mathematics. (See *Mathematics 392*.)

Four-hundred series courses are open to qualified third year students with the permission of the instructor. The specific courses in Special Topics in the History of Philosophy and in Special Problems in Philosophy will vary from year to year.

Special Topics in the History of Philosophy

Philosophy 410

Special topics in ancient philosophy. A study of problems or texts of interest to students wishing to do more advanced work. Prerequisite: *Philosophy 210* or permission of the instructor. Weekly two-hour seminar.

D. Gallop

Philosophy 411

Special topics in the philosophy of Kant. Prerequisite: *Philosophy 212* or permission of the instructor. (Offered in 1975-76.)

Special Problems in Philosophy

Philosophy 420

Problems in metaphysics. An exploration of the concepts of meaning and reference; identity, necessity and the *a priori* through an examination of works of Kant, Frege, Wittgenstein and Kripke. Weekly lecture, weekly tutorial. Prerequisite: *Philosophy 320, 313* or permission of the instructor.

A. Orenstein

Philosophy 421a

Intersubjectivity. An examination of Cartesian dualism and the problem of other minds, the analogical argument, empathy, behavioural approaches, and psychopathology of intersubjectivity. Special emphasis will be given to the relevant writings of Ayer, Strawson, Wisdom, Scheler, Sartre and Merleau-Ponty. Weekly lecture, weekly tutorial.

C. V. Boundas

Philosophy 422b

Action theory. An examination of causation; of the various senses of 'possible' and 'can'; of the concepts of reason and

purpose, of motive and desire; of deliberation, choice and action. Weekly two-hour seminar.

W. A. McMullen

Philosophy-History 470

Philosophy of history. (See *History 470*.)

Philosophy 490

Reading course. Students will be encouraged to pursue a special interest, largely through independent study. Details to be arranged in consultation with the staff in Philosophy between April 15-30 of the preceding academic year. Periodic tutorials.

Philosophy 495

Honours essay. For details see departmental handbook.

Physics

Professor of Physics and Chairman of the Department

J. I. Lodge, M.A. (QUEEN'S), PH.D. (VIRGINIA)

Associate Professors

L. C. R. Alfred, M.SC. (BOMBAY), PH.D. (SHEFFIELD);

J. W. Earnshaw, B.A.SC. (TORONTO), PH.D. (CAMBRIDGE);

R. G. Johnson, M.SC. (QUEEN'S), PH.D. (LIVERPOOL)

Assistant Professors

J. W. Jury, M.SC., PH.D. (TORONTO)

Lecturer

A. J. Slavin, B.A.S.C. (TORONTO), PH.D. (CAMBRIDGE)

Senior Demonstrator

Elizabeth D. Scott, B.SC. (YORK)

Required Courses

Single-major Ordinary program. Minimum five courses in Physics

Physics 100

Two *two-hundred* series Physics courses

Physics 300

One other *three-hundred* series Physics course

Joint-major Ordinary program. Minimum five courses in Physics

Same requirements as for single-major

Single-major Honours program. Minimum eleven courses in Physics

Physics 100

220 and one other *two-hundred* series Physics course

300

400

Physics

Joint-major Honours program. Minimum seven courses in Physics

Physics 100

Two two-hundred series Physics courses

Physics 300

One additional three-hundred series Physics course

Two approved four-hundred series Physics courses

Special Provisos

— First-year students with three Grade 13 credits in Mathematics and one credit in Grade 13 Physics may take *Physics 200* concurrently with *Physics 100*.

— Students electing no more than two courses in Physics will normally elect *Physics 100* and *Physics 200*.

— Students wishing to deviate from programs outlined above, or to obtain exemption from course prerequisites, should consult the Chairman.

Note

— Course prerequisites should be carefully noted by the student.

— *Mathematics 100, 200, 210, 301* and *Computer Science 200a* are strongly recommended for the Honours programs.

— *Science 200* (Astronomy) and *Science 201* (The Rise of Modern Science) are suitable complements to single- and joint-major programs in Physics. (See Interdisciplinary Studies.)

Physics 100

Elementary physics. Physical optics, particle dynamics, translational and rotational motion, wave motion, special relativity, electricity, quantum physics (wave nature of matter). Prerequisites: Two Grade 13 credits, or equivalent, in Mathematics, or permission of the department. One Grade 13 credit in Physics recommended. Co-requisite: *Mathematics 100*. Two lectures and three-hour laboratory weekly, tutorial fortnightly.

J. I. Lodge

Physics 200

Introductory modern physics and thermophysics. Thermodynamics, kinetic theory of gases, photon theory of light, properties of electrons, X-rays, quantum mechanics, atomic structure, radioactivity. Prerequisites: Three Grade 13 credits in Mathematics and one Grade 13 credit in Physics or their equivalent, or *Physics 100*. Two lectures and three-hour laboratory weekly, tutorial fortnightly.

A. J. Slavin

Physics–Mathematics 210

Mechanics. (See *Mathematics 210*.)

Physics 220

Electricity and magnetism. Circuit theory, electrostatics, magnetostatics, electric and magnetic properties of matter,

Maxwell's equations. Basic electronics. Prerequisites: *Mathematics 100, Physics 100*. Three class meetings, laboratory weekly.

J. W. Earnshaw

Physics 300

Modern physics. Development of the foundations of modern physics emphasizing the quantum nature of radiation and matter: quantum mechanics, atomic physics, quantum molecular dynamics, introductory nuclear physics.

Prerequisite: *Mathematics 200, Physics 200* or *220*. Two lectures, one laboratory weekly.

J. W. Jury

Physics 320

Electronics. Introduction to linear circuit analysis and elementary solid state physics, theory of operation of thermionic vacuum tubes, semiconducting diodes and transistors. Analysis of power supplies and amplifiers. Prerequisite: *Physics 220*. Two lectures, three-hour laboratory or tutorial weekly.

J. I. Lodge

Physics 330a

Quantum optics and wave theory. The theory of wave motion with examples from light and sound: reflection, refraction, interference, diffraction, laser physics, holography. Two class meetings weekly, tutorial and laboratory alternate weeks. Prerequisite: *Mathematics 200, Physics 200* or *220*.

J. W. Earnshaw

Physics 331b

Molecular and thermal physics. Structure and properties of molecules, statistical mechanics, classical thermodynamics. Two lectures and laboratory or seminar weekly. This course is identical to the second half of *Chemistry 300*. Prerequisite: *Chemistry 200* or *Physics 200*.

R. E. March

Physics 350b

Methods of mathematical physics. Matrices. Eigenfunctions and eigenvalue problems. Generalized curvilinear coordinate systems. Tensor analysis. Conformal mapping. Prerequisite: *Physics 210, Mathematics 200*. Two class meetings weekly.

L. C. R. Alfred

Physics 400

Quantum mechanics. Wave formalism, wave packets, the wave equation, interpretative postulates, energy and momentum eigenfunctions, spherically symmetric potentials, partial wave analysis of scattering, matrix formalism. Heisenberg and Schrödinger pictures, rotation group and angular momentum, perturbation theory, variational

method, WKB approximation, Dirac theory of electron. Prerequisites: *Physics 300, Physics 350b*. Three class meetings weekly.

R. G. Johnson

Physics 420

Electromagnetic theory: Advanced treatment of Maxwell's equations with applications. Relativistic transformation of electromagnetic fields. Electromagnetic waves in various media. Motion of charged particles in electromagnetic fields. Electromagnetic radiation. Radiating systems. Prerequisites: *Physics 220, Physics 320, Physics 350b*. Two class meetings weekly.

L. C. R. Alfred

Physics 430

Solid state physics. Advanced statistical mechanics, crystallography, theory of electrical and thermal properties of metals, band theory, semiconductors, lattice vibrations, specific heat, imperfections in solids. Prerequisites: *Physics 200, Physics 300, Physics 331b*. Two lectures and one tutorial weekly, laboratory.

A. J. Slavin

Physics 440

Nuclear physics. Nuclear properties, two nucleon problem, models of the nucleus, alpha-, beta-, and gamma-decay, methods of detection and spectroscopy, nuclear reaction theories, introduction to elementary particle physics. Prerequisites: *Physics 300, Physics 350b*. Three class meetings weekly, laboratory.

R. G. Johnson

Physics 460c

Project course. An experimental or theoretical project on some topic of advanced physics. Past projects have included construction of a laser, field emission electron microscopy, I.R. analysis of automobile exhaust, atomic potential theory, etc. Projects are selected in consultation with members of the department.

J. W. Jury

Science 100

Physical bases of environmental problems. See Interdisciplinary Studies.

Science 200

Astronomy. See Interdisciplinary Studies.

Science 201

The rise of modern science. See Interdisciplinary Studies.

Computer Science 200a

Introduction to Computer Science. See Interdisciplinary Studies.

Computer Science 201b

Advanced topics in Computer Science. See Interdisciplinary Studies.

Politics

Associate Professor of Politics and Chairman of the Department

D. R. Cameron, B.A. (BRITISH COLUMBIA), M.SC., PH.D. (LONDON) (on leave 1974-75)

Associate Professor and Acting Chairman

Margaret P. Doxey, B.SC., PH.D. (LONDON)

Professors

David Kettler, A.B., M.A., PH.D. (COLUMBIA); S. G. D. Smith, B.A. (MCGILL), M.A., B.LITT. (OXFORD)

Associate Professors

K. R. V. Lyon, B.A. (BRITISH COLUMBIA); D. R. Morrison, M.A. (SASKATCHEWAN), D.PHIL. (SUSSEX); W. F. W. Neville, B.A. (MANITOBA), M.A. (OXFORD) (on leave 1974-75); Joseph Wearing, B.A. (WESTERN ONTARIO), M.A. (TORONTO, OXFORD), D.PHIL. (OXFORD)

Assistant Professors

P. Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD), (MANCHESTER), PH.D. (MANCHESTER); R. C. Paehlke, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH)

Required Courses

Single-major Ordinary program. Minimum six courses in Politics.

Politics 100

At least two courses at *three-hundred* level.

Joint-major Ordinary program. Minimum five courses in Politics.

Same required courses as for single-major.

Single-major Honours program. Minimum nine courses in Politics.

Politics 100

233 (or, with departmental approval, another course in Political Theory)

At least one of *Politics 333, 334, 335, 410*

At least two courses at the *four-hundred* level

Joint-major Honours program. Minimum seven courses in Politics

Politics 100

233 (or, with departmental approval, another course in Political Theory)

At least one of *Politics 333, 334, 335, 410*

At least one course at the four-hundred level

Special Provisos

– Freshmen may take *Politics 100* and/or one of *Politics 210* or *220*, without special permission.

– After successful completion of *Politics 100* with a C grade or better, a student may enrol in two-hundred and three-hundred level courses without special permission, provided stated prerequisites have been met. Proposals for reading courses under *Politics 360* and *460* should be developed in consultation with tutors and approved by the department, preferably in the Spring Term of the preceding year and in no case later than the Friday before Thanksgiving of the year in which they are to be taken. Further details of the program in Politics may be obtained from the office of the secretary to the Chairman of the department. Students who intend to major in Politics are advised to discuss their program of studies with the Chairman or a tutor in Politics in their college.

Politics 100

An introduction to the study of politics. An examination of two major political themes which are particularly relevant to Canadian politics: nationalism and liberal democracy.

Each theme is examined at both the theoretical level and through a study of contemporary political developments in Canada. Lecture weekly, occasional special class meetings, tutorials fortnightly.

R. C. Paehlke and staff

Politics 200

Canadian politics. An intermediate course in which special attention will be given to Canadian political culture, regionalism and political parties; the institutions of decision-making at the federal level; an evaluation of the policy achievements of Canadian government. Prerequisites: *Politics 100* or permission of the department. Regular tutorials and lectures. *S. G. D. Smith and J. Wearing*

Politics 210

Politics U.S.A. A study of American political attitudes and institutions set in the context of an evaluation of the ability of the American political system to cope with such problems as racial tension, violence, poverty and the deteriorating quality of urban life. Weekly tutorial and lecture.

K. R. V. Lyon

Politics 220

International politics. An introduction to the study of international politics giving special attention to the foreign policies of the major states and their interaction and to the consideration of selected problems, both practical and theoretical, relating to the development of the international system since 1945. Regular lectures and tutorials.

M. P. Doxey

Politics–Philosophy 233

Political philosophy. An introduction to political theory through an examination of selected writings from Plato, Aristotle, Aquinas, Machiavelli, Hobbes, Locke and Rousseau; with reflection on questions of justice and law, sovereignty and power, liberty and equality, community and state. Offered jointly by Politics and Philosophy. Freshmen not normally admitted. Weekly lecture, fortnightly tutorial.

D. Kettler and J. Burbidge

Politics 240

Introduction to comparative politics. An introduction to the various approaches and problems in comparative political enquiry. Empirical material will include mainly Western and Eastern European politics and some Third World politics where necessary. The course will examine: functional approaches and institutional alternatives in the performance and capabilities of various polities; systems approaches to inter-dependent phenomena; and some of the various typologies developed about different regimes and processes.

P. Bandyopadhyay

Politics–History 300

Canadian politics and history. Selected topics in the development of Canadian federalism. (See *History 300*.)

Politics 310

Ontario: Its politics and problems. A critical examination of policy formulation and achievement in fields such as education, social services, transportation, finance; and a study of the problems raised by governmental structures in such areas as the growth of provincial public administration, the functions of the legislature and the executive, inter-governmental relations, and the position of the three provincial parties. Weekly evening lectures, fortnightly tutorials. Prerequisite: *Politics 100*. The lectures may also be taken on a non-credit basis without prerequisite.

J. Wearing

Politics 320

Conflict and co-operation in international relations. An analysis of the relations between states based on contemporary theoretical approaches to the subject. Characteristics of international systems, the goals and instruments of national policy and sources of tension and conflict will be discussed

in the first part of the course; in the second part, emphasis will be placed on co-operation and integration at the universal and regional level. Prerequisite: *Politics 220* or permission of the department. Regular tutorials and occasional lectures.

M. P. Doxey

Politics 321b

International law. An introductory study of international law, its sources and functions, achievements and shortcomings. Emphasis will be placed on the relevance of international law to contemporary international society as a medium of communication, a system of restraints and a tool of national policy. Prerequisite: *Politics 220* or permission of the department. Weekly seminars.

M. P. Doxey

Politics-Philosophy 333

Political philosophy. Statist and revolutionary theories. (See *Philosophy 333*.)

Politics-Philosophy 334

Political philosophy. Liberal democratic theory. (See *Philosophy 334*.)

Politics 335

Ideology. The term ideology plays an important role in recent empirical and historical enquiries into political beliefs as well as in philosophical interpretation of political ideas. The course will examine representative literature from both contexts and consider relationships among them. An important theme will be the political roles of intellectuals. Regular seminars.

D. Kettler

Politics 340

Comparative European politics. (Offered in 1975-76 and alternate years.)

Politics 341

Party organization and elections. The course will include an examination of organization theory, a comparative study of party structures in various Western countries, the techniques of electioneering and their impact on the electorate, the functions of political parties and their ability to perform those functions. The course will be comparative in approach, but special attention will be given to Canadian party organization. Weekly lectures and tutorials.

J. Wearing

Politics 350

The politics of developing areas. A study of political behaviour and structures in the new states of Africa and

Asia with particular reference to the problems of modernization and political development: the relationship between politics and socio-economic change; and the roles of ideologies, political parties, civil and military bureaucracies, and voluntary associations in nationbuilding processes. Prerequisite: *Politics 100* or permission of the department. Fortnightly tutorials; occasional lectures.

D. R. Morrison

Politics 351

Politics and social change in Africa. (Offered in 1975-76 and alternate years.)

Politics 360

Special topics in politics. A reading course open only to students majoring in Politics, designed to provide an opportunity for more intensive examination of material studied concurrently in other politics courses. A reading course may be taken on a half-course basis as *Politics 361a* or *Politics 362b*. Prerequisite: Permission of the department.

Politics-Philosophy 374a

Philosophy of law. (See *Philosophy-Politics 374a*.)

Politics-History 400

Contemporary Canadian problems. A study of the policy-making process in Canada. Attention will be directed to both the formal structures of decision-making and the forces in contemporary Canada which are having a major influence on these decisions. The constraints on and opportunities for autonomous Canadian policy-making will be examined. Two-hour fortnightly seminars.

K. R. V. Lyon and S. G. D. Smith

Politics 410

Contemporary political analysis. A critical examination of recent approaches to the study of politics. Prerequisite: permission of the department. Weekly tutorials.

R. C. Paehlke

Politics 420

Foreign policy analysis. A study of the processes of formulating and executing foreign policy, with emphasis on internal and external constraints on decision-making. Examples will be drawn from Canadian and United States experience. Students in this course will be responsible for a major research paper. Fortnightly seminars.

M. P. Doxey

Politics 440

Politics of planning. (To be introduced in 1975-76.)

Politics 460

Special topics in politics. A reading course for Politics Honours students, or for students in the final year of a Politics major program. A reading course may be taken on a half-course basis as *Politics 461a* or *Politics 462b*. Pre-requisite: permission of the department. Periodic tutorials.

Politics 470

Honours thesis.

Psychology

Professor of Psychology and Chairman of the Department

A. G. Worthington, B.COM. (QUEENSLAND), PH.D. (LONDON), M.A.Ps.S.

Professor Emeritus

J. M. Blackburn, B.SC. (LONDON), PH.D. (CAMBRIDGE)

Professor

J. P. S. Robertson, M.A. (NEW ZEALAND), PH.D. (LONDON), F.B.Ps.S.

Visiting Professor

K. A. Leithwood, B.A. (TORONTO), B.P.E. (McMASTER), M.P.E. (BRITISH COLUMBIA), PH.D. (TORONTO)

Associate Professors

B. L. Beach, B.A. (ACADIA), M.A. (DALHOUSIE), PH.D. (MCGILL); R. G. Setterington, M.A., PH.D. (TORONTO) (on leave 1974-75); H. J. Stanford, M.A., PH.D. (QUEEN'S); Peter Watson, M.A., PH.D. (WESTERN ONTARIO) (on leave 1974-75); Gordon Winocur, M.A. (MANITOBA), PH.D. (WATERLOO)

Assistant Professors

Carole Ernest, B.A. (SASKATCHEWAN), M.A., PH.D. (WESTERN ONTARIO); D. G. Lowe, B.A. (McMASTER), M.A., PH.D. (WATERLOO); R. B. Morris, B.A. (REDLANDS), M.SC. (WASHINGTON), PH.D. (ALBERTA); G. T. Reker, B.A. (McMASTER), M.A.SC., PH.D. (WATERLOO); C. T. Smith, B.SC. (MANITOBA), M.A., PH.D. (WATERLOO); P. T.-P. Wong, B.A. (CARLETON), M.A., PH.D. (TORONTO)

Lecturer

Catherine Sproule, B.A. (TORONTO)

Required Courses

Single-major Ordinary program. Minimum six courses in Psychology

Psychology 101

210

At least one additional *two-hundred* series Psychology course

At least three *three-hundred* series Psychology courses

Joint-major Ordinary program. Minimum five courses in Psychology

Psychology 101

210

At least one additional *two-hundred* series Psychology course

At least two *three-hundred* series Psychology courses

Single- and joint-major Honours program. Entry into and arrangement of the Honours program in Psychology is contingent on an interview with members of the department; candidates will not normally be considered for the Honours program unless *Psychology 310* has been included in their Ordinary degree program.

Recommended Courses

Biology 286a, 381b, 383a; Mathematics 100, 130, 343; Statistics 100; Mathematics-Statistics 250, 351, 352; Computer Science 200a; Philosophy 240, 270; Sociology 315; English 390.

Psychology 101

Introduction to psychology. A survey of the major areas of psychology, including its historical development and the methods of the science. The course includes material on the development of behaviour, learning, memory, motivation and emotion, the biological bases of behaviour, perceptual processes, individual differences, personality, abnormal behaviour, and the social determinants of behaviour. Two lectures weekly, one three-hour laboratory session or seminar discussion fortnightly.

C. H. Ernest

Psychology 200

Individual development and the social context. Selected topics discussed from the orientation of developmental psychology, personality, and social psychology. Consideration is given to the definition of these areas within psychology, the research methods of these areas, the biological background and its influences, the socio-cultural context, and the development and definition of abnormalities. Two lectures weekly, seminar fortnightly, occasional tutorials. Prerequisite: *Psychology 101*.

C. Sproule

Psychology 210

Intermediate experimental psychology. A course on experimental methods in psychology, dealing with the design and execution of experimental studies and techniques of statistical analysis. The course will focus on work in the areas of psychophysics, perceptual processes, learning, memory, and complex human behaviour. Two lectures weekly, two-hour laboratory or seminar fortnightly. Prerequisite: *Psychology 101*.

D. G. Lowe

Psychology 221

Introduction to physiological and comparative psychology. A consideration of the methods and techniques of physiological and comparative psychology. Content of the course includes topics relating to neuroanatomy, sensory and motor systems, physiological mechanisms of behaviour, innate vs. learned behaviour, individual and social behaviour of animals, etc. Two lectures weekly, one two-hour seminar weekly. Prerequisite: *Psychology 101*.

C. T. Smith

Psychology-Philosophy 223b

Philosophy of mind. See *Philosophy-Psychology 223b*.

Psychology 301

Educational psychology. An examination of the ways in which the methods and content of psychology may be applied in the search for solutions to problems of teaching and learning, with emphasis on the theoretical and empirical bases for decisions about what constitutes sound educational practice. Teaching method will be equivalent to one lecture and one seminar or tutorial weekly and at least one major assignment per term. Prerequisite: *Psychology 101*.

H. J. Stanford

Psychology 302

Psychology of language. Theories of language, language acquisition in humans, the teaching of language skills, diagnosis and remediation of language disorders, and the relationship between language and learning in general will be discussed. The factors involved in reading and in learning to read will be emphasized. One lecture and one seminar weekly and one major assignment per term. Prerequisite: *Psychology 101*.

H. J. Stanford

Psychology 305

Psychology of innovative school programs. An examination of methods of identifying and conceptualizing practical problems in educational settings, generating and applying possible solutions, and evaluating the success of those solutions. The course will involve practical work in a school situation, supplemented by periodic lecture/seminar sessions. Prerequisites: *Psychology 101* and permission of the instructor.

K. A. Leithwood

Psychology 310

Advanced experimental psychology. An intensive study of experimental methods in selected areas of psychology, and advanced statistical analysis. The course will consist of seminars and experimental projects. One lecture weekly; seminar or tutorial weekly; three-hour laboratory weekly. Prerequisites: *Psychology 101* and *210*.

A. G. Worthington

Psychology 321

Industrial psychology and human factors. The application of psychological methods to problems in industry and other applied areas. One lecture and one two-hour seminar weekly. Prerequisite: *Psychology 101*. (Might not be offered in 1974-75.)

Psychology 331

Individual differences and personality theory. An in-depth, empirically-oriented analysis of a number of important personality theorists including Freud, Jung, Adler, Erikson, Allport, Lewin, behaviourist and humanist theorists. An examination of the principles of the construction and applied use of various types of psychological tests. Training in test administration given, and ethical problems in test usage considered. Two lectures weekly, one tutorial/seminar fortnightly. Prerequisite: *Psychology 101*; Recommended: *Psychology 200*.

G. T. Reker

Psychology 335

Contemporary trends in personality. A discussion of certain current approaches to the study of personality. Emphasis will be placed on the contributions of Third Force, existentialist and phenomenological theorists through an examination of their conceptual and creative works. The dynamics of abnormal behaviour as related to contemporary movements in personality will be discussed. Lecture weekly; tutorial fortnightly. Enrolment may be limited. Prerequisite: *Psychology 101*. Recommended: *Psychology 200*.

B. L. Beach

Psychology 340

Experimental abnormal psychology. A survey of deviations and disorders in behaviour as investigated by experiments and other systematic procedures. The application of psychological research to medical and allied problems. One two-hour lecture weekly, one tutorial fortnightly, various laboratory and demonstration sessions. Prerequisite: *Psychology 101* and permission of the instructor.

J. P. S. Robertson

Psychology 351

Learning and motivation. An analysis of theories and concepts in the areas of learning and motivation. Concentration will be on theories, concepts, and an intensive consideration of important issues in animal learning in the Autumn Term. In the Winter and Spring Terms emphasis will be on human learning, particularly theoretical issues and empirical findings in verbal learning, retention, and other related learning processes. One three-hour seminar/lecture weekly. Prerequisite: *Psychology 101*. Recommended: *Psychology 210*.

C. H. Ernest and P. T.-P. Wong

Psychology

Psychology 362a

Sensory processes. A study of the sensory aspects of human information processing. The course will include material pertaining to the psychophysical relationships of the various senses as well as a consideration of the application of the fundamentals to the understanding of sensory malfunctions and abnormalities. Two lectures, one seminar or tutorial weekly. Prerequisite: *Psychology 101*.

D. G. Lowe and A. G. Worthington

Psychology 363b

Perception. The perceptual processes underlying an individual's apprehension of his environment; the organization and interaction of patterns of stimulation, and ways in which expectancies, memories, frames of reference, and other cognitive functions enter into the structuring of the percept. Two lectures, one seminar or tutorial weekly.

Prerequisite: *Psychology 101*. Recommended: *Psychology 362a*.

D. G. Lowe and A. G. Worthington

Psychology 364a

Cognitive processes. A survey of studies on human information processing concentrating on visual and auditory pattern recognition, attention, memory and imagery. One two-hour lecture/seminar weekly. Prerequisite: *Psychology 101*.

D. G. Lowe

Psychology 365b

Language and thought. An examination of the acquisition of language, the structure of adult language, the interaction of syntax and semantics, models of complex cognitive processes such as problem-solving and long-term memory, and the interrelationship of different cognitive processes. One two-hour lecture/seminar weekly. Prerequisite: permission of the instructor. (Might not be offered in 1974-75.)

Psychology-Sociology 371

Social Psychology. An intensive examination of contemporary research problems and theories in social psychology including attribution theory, communication and attitude change, social power and group dynamics. Students will be expected to design and conduct a major project. This project may involve experimental research, an extensive review of the literature, or the application of the methods and principles of social psychology in an applied setting. One lecture and seminar weekly, occasional tutorials. Prerequisite: *Psychology 101*; Recommended: *Psychology 200*.

C. Sproule and P. T.-P. Wong

Psychology 375a

Mammalian nervous system. A senior course providing in-depth coverage of the central and peripheral nervous

systems, their anatomy and physiological interactions. While the emphasis will be on function and the manner in which neuro-structure relates to behaviour, coverage of neurophysiology will be at a fairly sophisticated level. Students will have the opportunity through laboratories to gain practical experience in the use of physiological techniques. Lecture/seminar weekly, three-hour laboratory fortnightly.

Prerequisite: permission of the instructor.

G. Winocur

Psychology 376b

Advanced physiological psychology. An intensive study of issues currently being studied by physiological psychologists. The course includes work on arousal and attention, emotion and motivation, learning and memory, plus special topics. Lecture/seminar weekly, three-hour laboratory fortnightly.

Prerequisite: *Psychology 375a*.

G. Winocur

Psychology 380

Child psychology. A discussion in depth of research methods and findings in child psychology. Topics covered include sensory and perceptual development, learning, the development of social motivation, and cognitive processes in children. One two-hour seminar weekly, occasional tutorials. Prerequisite: *Psychology 101*. Recommended: *Psychology 200* and *210*. (Might not be offered in 1974-75.)

Psychology 385

Exceptional children. An overview of the major areas of exceptionality in children, including physical handicap, learning disability, mental retardation, emotional disturbance, the socially disadvantaged, juvenile delinquency, and giftedness. Emphasis will be placed on definition, classification, etiology, assessment and treatment of the exceptional child. Two lectures weekly, two-hour seminars fortnightly. Prerequisite: *Psychology 101*. Recommended: *Psychology 200*.

G. T. Reker

Psychology 390

Behaviour modification. The application of principles of learning and motivation to practical situations including teaching, child training, public institutions, and animal training. There will be two areas of concentration: a) basic principles of behavioural analysis; and b) practical projects involving the application of basic principles to practical situations of the student's choice. Two-hour tutorial weekly. Prerequisite: *Psychology 101*. Recommended: *Psychology 200* or *210*. (Might not be offered in 1974-75.)

Psychology 395

History and systems of psychology. A survey of the history and systems of psychology. The work of various authors that may be considered important in the history of psychology because of their contribution to systematic theory, research, or the organization of the discipline will be discussed.

Lecture, two-hour seminar weekly. Prerequisite: *Psychology 101*. Recommended: *Psychology 200, 210, or 221*.

R. B. Morris and J. P. S. Robertson

Psychology 399

Reading course. A course designed to allow pursuit of special interests in advanced topics in psychology, largely through independent research under the direction of departmental staff. Prerequisite: *Psychology 101* and permission of the department.

A. G. Worthington

Honours Program

An intensive program normally completed within a single academic year, but also available to qualified students on a part-time basis. Individual programs are arranged in consultation with the department to meet the needs and interests of each student, primarily to ensure meeting the admission requirements of graduate schools upon successful completion of the program. Each student will complete an Honours thesis – *Psychology 400* – based upon empirical research under the supervision of a faculty advisor. In addition, two research seminars or reading courses – *Psychology 490* and *Psychology 495* – will normally be arranged to allow the individual student to fill gaps in background, or to pursue particular interests. An additional course may be required if the student's background in Psychology makes it necessary. Requirements for the Honours degree are normally: *Psychology 400*, a double credit course, and two other courses. Prerequisites: *Psychology 101, 210, 310* and permission of the department.

Program Co-ordinator: A. G. Worthington

Sociology

Associate Professor of Sociology and Chairman of the Department

John Hillman, M.A. (OXFORD)

Professors

John C. McDonald, B.A. (TORONTO), M.SOC.SC., PH.D. (BIRMINGHAM); R. F. White, B.A., B.A.SC., M.COM. (TORONTO), PH.D. (CHICAGO) (on leave 1974-75)

Associate Professor

Roy T. Bowles, B.SC. (BRIGHAM YOUNG), PH.D. (OREGON)

Assistant Professors

Pradeep Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD, MANCHESTER), PH.D. (MANCHESTER); B. Dan Hook-Czarnocki, B.A. (MCMASTER), M.A. (WISCONSIN); Alan D. Lewis, M.A. (LEICESTER); R. A. Lockhart, M.A. (SIMON FRASER); Andrew L. Wernick, M.A. (TORONTO, CAMBRIDGE)

Associate Professor of Social Administration and Special Lecturer in Sociology

Marjory P. Seeley, B.A. (MANITOBA), A.M. (CHICAGO)

Lecturers

Beng Huat Chua, B.SC. (ACADIA) M.A. (YORK); Christopher V. Huxley, B.A. (YORK, ENG.), M.A. (SIMON FRASER); Frank Nutch, M.A. (HAWAII)

Required Courses

Single-major Ordinary program. Minimum five courses in Sociology

Sociology 100

210

211

Joint-major Ordinary program. Minimum five courses in Sociology

Same requirements as for single-major

Single-major Honours program. Minimum eight courses in Sociology

Sociology 100

210

211

410

Joint-major Honours program. Minimum seven courses in Sociology

Same requirements as for single-major Honours program.

Special Provisos

– Majors should be aware that *Sociology 332, 343, 365, 385, 386* require the kind of theoretical and methodological preparation provided in *Sociology 210* and *211*.

– *Sociology 210* and *211* may be counted in either the two-hundred or three-hundred series.

– An additional methodology course *Sociology 321, 412, 422, 423* is recommended for Honours students.

Sociology 100

Introduction to social analysis. An introduction to the basic ideas and methods of sociological study. An examination of the elements of social structure and social behaviour – social relations, social groups, cultural norms and values – against the background of both simple and complex societies.

Two lectures, one seminar weekly.

R. A. Lockhart and staff

Sociology Anthropology 200

Cultural anthropology. See *Anthropology 200*.

Sociology 210

Sociological enquiry. Microsociology. A critical examination of the contribution of sociological thinkers to our under-

standing of various aspects of social reality: consciousness, roles, institutions. Monographs from different perspectives will demonstrate the variety of theories, strategies of enquiry and techniques of research that have been used in this task. Lectures, two seminars weekly.

B. Chua, A. D. Lewis, A. Wernick

Note: *Sociology 210* and *211* are offered jointly and must be taken together.

Those who have *Social Theory 200*, or other theoretical work in cognate disciplines may make special arrangements to waive the requirement of *Sociology 210* or *211*, but not both.

Sociology 211

Sociological enquiry. Macrosociology. A companion course to *Sociology 210* in which the reciprocal problems of social structure, religion and ideology are examined. One area of enquiry is the Canadian community. Lecture, two seminars weekly.

B. Chua, A. D. Lewis, A. Wernick

Sociology 241

Kinship and family. An examination of the structure of contemporary kinship (in the broadest sense of the term).

Themes that will be explored: the general relation between economy, class, and culture; male-female social relations; sexuality; socialization; the social context of isolation and "insanity"; inter-generational conflict, youth culture, and "counter-culture". Lecture, two seminars weekly. Enrolment will be limited to 80.

J. McDonald

Sociology 261

Deviance and social control. A study of the major theories of deviance and an examination of their relevance and utility in the understanding of the causal and ideological aspects of crime, alcoholism, drug addiction, and mental disorders. The nature of social control including an analysis of the role of punishment, treatment, and total institutions in our society. Lecture, two seminars weekly.

B. Chua

Sociology 280

Class and race. A comparative analysis of the processes whereby wealth, power, and prestige are allocated in various societies.

J. Hillman

Sociology 321

Sociological methods. An introduction to the concepts and practices of research analysis. The emphasis is placed on the basic ideas underlying various procedures, and on the

question of fit between obtainable data, appropriate procedures, and the existing forms of sociological theory. (Formerly *Sociology 221*.) One three-hour lecture-laboratory session weekly.

R. Bowles

Sociology 332

Social organization and bureaucracy. An analysis of simple and complex social organizations, with particular emphasis on the structuring and functioning of large-scale bureaucracy and post-bureaucratic forms. The course will examine both industrial and service organizations, and will be concerned with work relations, occupational development, etc. Lecture, seminar weekly.

C. Huxley

Sociology 340

Sociology of education. An examination of the structure and functions of education and their relationship to those of other social institutions, with particular reference to socialization and social control, ability and opportunity, social mobility, social and cultural factors in achievement and the teaching profession. Lecture, two seminars weekly. (May not be offered 1974-75.)

R. A. Lockhart

Sociology 343

Self and society. An examination of the effects of social structure and culture on self development and personality growth, and the effects of individual action on the social system. Consideration of the effects of social interaction in the process of social change, and analysis of social pathology, deviance, mental health, etc. Weekly lecture and seminar.

F. Nutch

Sociology 362b

Social administration. An examination of the structure and functions of the system of welfare programs and services in contemporary Canadian society. Emphasis will be placed on the exploration of current issues; the perception of welfare by different groups in society and its influence on social planning and policy. Particular attention will be directed toward the problem of poverty, the meaning of welfare and its consequences for the individual and society. Weekly lectures; two-hour seminar fortnightly. *Sociology 366a* is recommended as a complementary course.

M. P. Seeley

Sociology 365

Social policy and planning. An examination of the expanding role of state and governmental institutions in affecting several aspects of socio-economic conditions and well-being. Policy formulation and implementation will be assessed with emphasis on social sectors such as education, health, housing and welfare. Empirical material will be drawn for comparative purposes from several Western and

East European countries. The latter half of the course will take more theoretical and technical issues in socio-economic planning, to study the nature of planning models, financing, issues in social choice and distribution, and sociological aspects of plan implementation.

P. Bandyopadhyay

Sociology 366a

Social policy. This is a half-course designed to complement *Sociology 362b* (Social Welfare). The course will be identical to the first half of *Sociology 365* with common lectures.

P. Bandyopadhyay

Sociology–Psychology 371

Social Psychology. (See *Psychology 371*.)

Sociology 382a

Population and society. Nature and scope of demographic analysis; its concepts and methods. Growth, composition and movement of populations. Major determinants and social consequences of demographic phenomena. Comparative analysis of population trends. Canadian population in the world context. Population and resources – contemporary public issues and prospects. Lecture, discussion weekly. No prerequisites.

D. Czarnocki

Sociology 383b

City and society. Evolution of the nature and social functions of the city from its pre-industrial to its “megapolis” forms. Perspective of human ecology: study of the development and structure of human communities in their environments. Spatio-temporal approaches: patterns of settlement, urban growth, transformation and decay in various societies and periods. Canadian cities and rural settlements in comparative perspective. Current urbanization trends and prospects. Lecture, discussion weekly. No prerequisites.

D. Czarnocki

Sociology 385

Comparative social structures. An analysis of the forms of social organization arising from the superimposition of industrial social structures on pre-industrial societies. Detailed attention will be given to selected Latin American and Asian cases of contemporary ‘underdevelopment’.

A. Lewis

Sociology 386

Canadian social structures. A sociological examination of the basic continuities, conflicts and changes in Canada. An attempt will be made to situate Canada concretely in a world context, as well as to analyze particular trends within a broader Canadian framework. Lectures weekly, seminar bi-weekly.

R. T. Bowles

Sociology 387a

Sociology of law. An examination of the structure and functioning of legal institutions in Canadian society and an analysis of the Canadian legal profession. The main foci of the course will be the role of the legal profession in the allocation and implementation of power, and the law as a vehicle for social change. Weekly seminars. (May not be offered 1974-75.)

J. C. McDonald

Sociology 388b

Selected topics in Canadian society. This course is intended to provide an opportunity for students to analyze in depth one of Canada’s continuing social structural problems such as English-French relations, access to community services such as health and so on. Weekly seminars. (May not be offered 1974-75.)

J. C. McDonald

Sociology 395

Special topics in sociology. Open to advanced students with departmental approval.

Sociology 410

Honours seminar. A reading course and discussion seminar to supervise the work of Honours students in selected areas of sociological analysis. Students in this course will be responsible for a major research paper. Fortnightly seminars.

Sociology 412

Sociology of knowledge. An examination of the relationship between social structure and social consciousness. The course will investigate this general problem in terms of one of the major types of systems of thought and ideas – religion, science, ideology, artistic culture, etc., by examining the mode of its production and transmission, and the relation of the idea-complex to other levels of social reality in different types of society.

A. Wernick

Sociology 422

Research practicum. This course will provide the student with direct research experience on a research project directed by a faculty member and will include research design, data collection, and various analytical approaches. Open to third and fourth-year students. Prerequisite: permission of instructor.

Sociology 423

Inference and verification. An examination of how theory is constituted and elaborated looking particularly at concept formation, theoretical fields, issues of scope and consistency,

Part-time Studies

and the relations of explanation and description to theory. While concentrating on sociology, the logical structure, scope, etc. of theory in other areas will also be considered. Lecture, two seminars weekly.

J. Hillman

Reading Course Option:

Both full- and half-year reading courses are available as *Sociology 390, 391a, or 392b; Sociology 490, 491a or 492b*. Registration in reading courses is contingent upon having received instructor's permission and departmental approval in advance of course registration.

The Part-time Studies program provides citizens of Peterborough and the Trent Valley with an opportunity to pursue a wide variety of courses leading to an Arts or Science degree, as well as general interest and professional continuing education courses. The latter, while not recognized for University credit, may lead to certification by co-operating organizations.

Part-time courses for credit are available during the regular academic session or during the Summer Session. The introduction of the course credit system in 1970 eliminated almost all differences between part-time and full-time students. Part-time students may enrol in any course given at the University for which they have the prerequisite. Please consult the appropriate sections of this Calendar for details of requirements for Ordinary and Honours programs.

To accommodate part-time students whose schedule does not permit attendance during the day, a number of regular courses are held late in the afternoon, and a limited number in the evening. A long-range timetable of courses scheduled in the late afternoon or evening and during the Summer Session is available on request from the Part-time Studies Office.

Applicants without the normal secondary school entrance requirements may be admitted to a program of part-time studies at the University. These applicants should consult the Part-time Studies Counsellor for further information. Counselling for applicants and in-course part-time students is available through the Part-time Studies Office.

Applicants for advanced standing must send their Ontario Grade 13 certificates or equivalent with the application and must arrange for forwarding of official transcripts of their university records to the Director of Admissions.



Graduate Studies

Summer Session

The University's Summer Session follows as closely as is practical the format of regular Winter Session courses, by including small-group teaching as well as lectures.

In addition to the classroom work, students enrolled in the summer courses may be assigned pre-course reading and assignments. Pre-course seminars are also scheduled in a number of courses for Saturday mornings in late May or early June.

Students enrolled in the Summer Session are not permitted to take more than two courses during any one Summer Session, and in some cases only one course is allowed.

Programs of Graduate Studies are being introduced at Trent on a selective basis, with Master of Science programs now under way in Physics and Chemistry. Master of Arts programs are offered in History and in Anthropology. Every program of Graduate Studies introduced at Trent will be submitted to the Appraisals Committee of the Ontario Council on Graduate Studies to ensure that it meets the high standards required for graduate studies in Ontario universities.

For further information, write to the Dean of Graduate Studies, Trent University, Peterborough, Ontario, or consult the Graduate Studies Calendar.



Student Services and Miscellaneous Information

University Bookstore

The University operates a bookstore at 224 Charlotte Street, which is easily reached from the University buses. With some 5,000 square feet of floor space, the bookstore is well suited to meet the wide range of needs and interests of the students, faculty and the Peterborough community.

All books in print can be obtained on individual order. A collection of bibliographical tools is maintained which students and staff are encouraged to use.

The bookstore aims to be more than a mere outlet for textbooks and stationery supplies. To this end, records, both classical and popular, a wide range of periodicals, and books of general interest are made available. The bookstore seeks to create an atmosphere that will encourage the enjoyment of books and the building of a private library.

University Student Health Service

The University Student Health Service is located in Otonabee College and provides both medical and counseling services for full-time students and for part-time students by arrangement. Hours are 9 a.m. to 5 p.m., Monday to Friday. Emergency treatment is available 24 hours a day.

The University requires all students to carry both medical and hospital insurance. Students from Ontario must carry Ontario Health Insurance, the Government-sponsored plan that provides benefits for both medical and hospital care and for the services of certain health practitioners. Students under 21 may be covered by their own family plans.

For Canadian students from outside Ontario, coverage should be obtained from their own province. For students from outside Canada special arrangements may have to be made at the time of registration.

Students seeking medical treatment are charged a fee for service which is normally recoverable from their medical insurance.

Athletic Program

The University has developed a diversified athletic and recreational program which makes use of both the facilities developed on the campus and those available in the city and surrounding area. Located on the campus are a full-size flood-lit playing field, a quarter-mile track, tennis and squash courts, and a small ski slope with rope tow. The University also has its own sailboats, canoes and rowing



shells. Arrangements are made within Peterborough for the use of rinks and swimming pools.

In the autumn of 1969 the University erected a temporary air-supported structure on the Nassau campus that provides during the winter months heated indoor facilities for such activities as badminton, basketball, fencing, judo, tennis, track, volleyball, karate, indoor soccer, and wrestling. Planning has been undertaken for the development of a permanent athletic fieldhouse that will include a gymnasium, squash courts, combative area and locker rooms.

The athletic program is organized to meet the varying interests of the students with competition for both men and women available at the inter-university, inter-college, and intramural levels. For the purpose of inter-university competition, Trent University is a member of the Ontario Universities Athletic Association.

Inter-university and inter-college competition is undertaken in badminton, basketball, curling, fencing, golf, hockey, harrier, judo, rowing, rugger, skiing, soccer, sailing, softball, squash, tennis, track, touch football, field-hockey, and volleyball. The University Resources Centre lends equipment to enable interested students to undertake regular camping and canoeing expeditions into the Kawartha hinterland.

Career Planning and Placement

Students seeking assistance in finding employment are invited to use the facilities of the Placement Office.

A principal concern of this office is the career planning of graduating students and their eventual employment. On-campus interviews are arranged with representatives of business, industry and government agencies. Students seeking information about teaching, professional schools, and graduate study also find this office useful.

Undergraduate Activities

The University community has fostered and developed a rich and varied program of social and cultural activities. Participation is invited in the numerous student organizations and activities. The early years of the University have seen the establishment and lively growth of literary magazines, a yearbook, a community action program, and of dramatic, art, music, debating and film societies, plus a

student newspaper and many other activities and events. Each of the College governments sponsors a wide variety of formal and informal activity.

Among the facilities that Peterborough offers to members of the University are a fine public library, a museum a symphony orchestra, a varied theatrical program, and regular visits by musical and theatrical companies.

University Lodging Service

Students coming to Trent University who are not resident in the Colleges may obtain addresses of accommodation known to be available in Peterborough from the University's lodging service. Those students wishing to make use of this service should write to The Secretary, Committee on Colleges, Trent University, in advance of the Autumn Term.

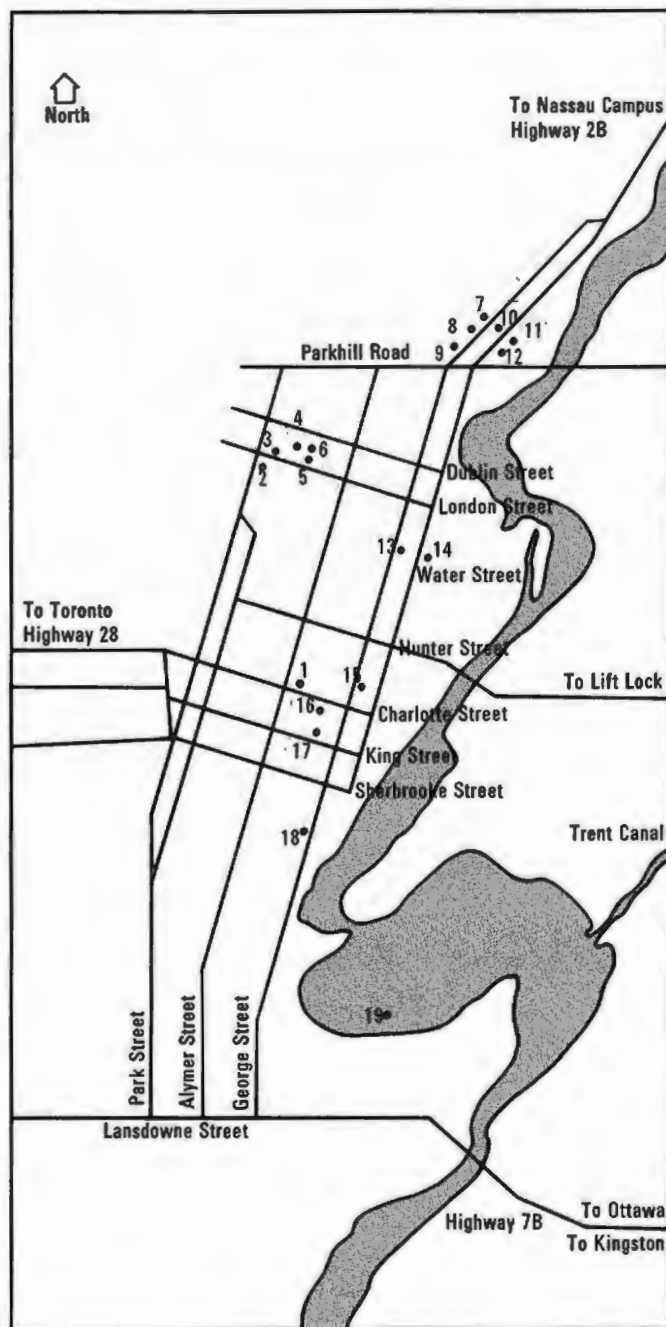
All non-resident students of Trent University are members of a College and enjoy full use of its facilities, including its dining hall. The University maintains a frequent bus service which connects between centres of the University in the city of Peterborough and the Nassau Campus to the north of the city.

Bus Service

The University operates a free bus service linking the Nassau Campus with the two town colleges and the Bookstore on a regular basis.

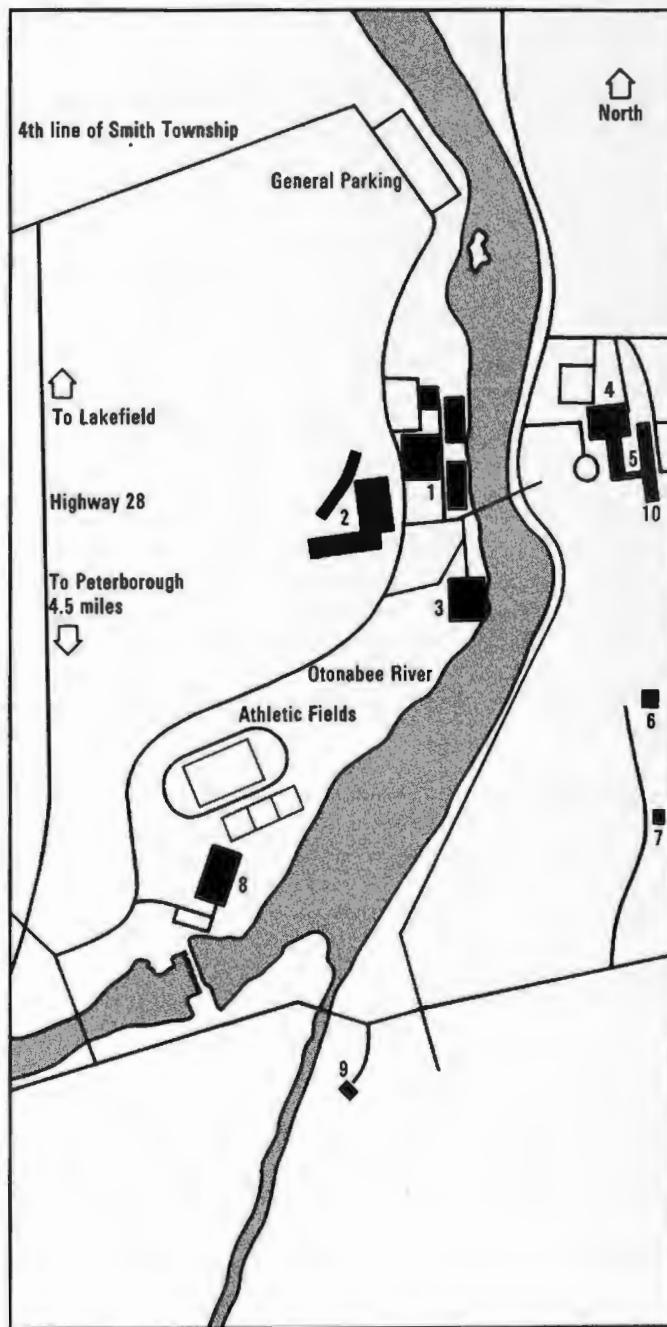
Trent University (in Peterborough)

- | | | |
|-------------------------------|------------------------|------------------------------|
| 1 Bookstore | Peter Robinson College | City Landmarks |
| Catharine Parr Traill College | 7 College House | 13 City Hall |
| 2 Langton House | 8 Reade House | 14 Police Station |
| 3 Wallis Hall | 9 Denne House | 15 Town Clock |
| 4 Scott House | 10 East Lodge | 16 Post Office |
| 5 Stewart House | 11 Stratton House | 17 Bus Station |
| 6 Kerr House | 12 Abbott House | 18 CPR Station |
| | | 19 Centennial Water Fountain |



Nassau Campus

- | | |
|-------------------------|-----------------------|
| 1 Champlain College | 7 Mackenzie Gallery |
| 2 Lady Eaton College | 8 Biology Building |
| 3 Library | 9 The Commoner |
| 4 Science Complex | 10 Registrar's Office |
| 5 Otonabee College | |
| 6 Archaeological Museum | |



University Diary

Autumn Term/1974

Aug. 31	Saturday	Final date for payment of first instalment of fees
Sept. 2	Monday	Labour Day
Sept. 8	Sunday	Arrival of new students
Sept. 9	Monday	Introductory seminar begins
Sept. 15	Sunday	Arrival of returning students
Sept. 16	Monday	Classes begin
Sept. 26	Thursday	Meeting of the Senate
Oct. 11	Friday	Final date for changes in registration
Oct. 14	Monday	Thanksgiving Day
Oct. 17	Thursday	Meeting of the Senate
Oct. 26	Saturday	Classes end Fall Convocation
Oct. 28	Monday	Residential Reading and Laboratory Week begins
Nov. 1	Friday	Final date for withdrawal from a half courses
Nov. 4	Monday	Classes resume
Nov. 21	Thursday	Meeting of the Senate
Dec. 14	Saturday	Classes end
Dec. 15	Sunday	Christmas Vacation and Reading Period begins

Winter Term/1975

Jan. 1	Wednesday	New Year's Day
Jan. 6	Monday	Classes resume
Jan. 16	Thursday	Meeting of the Senate
Feb. 1	Saturday	Classes end
Feb. 3	Monday	Final date for payment of second instalment of fees Residential Reading and Laboratory Week begins
Feb. 10	Monday	Classes resume
Feb. 20	Thursday	Meeting of the Senate
Feb. 28	Friday	Final date for withdrawal without penalty
Mar. 15	Saturday	Classes end
Mar. 16	Sunday to	March vacation and
Mar. 30	Sunday	Reading period
Mar. 28	Friday	Good Friday

Spring Term

Mar. 31	Monday	Classes resume
Apr. 17	Thursday	Meeting of the Senate
Apr. 26	Saturday	Classes end
Apr. 28	Monday	Examinations begin
May 1	Thursday	Final date for receipt of applications for admission to the Summer Session
May 10	Saturday	Examinations end
May 11	Sunday	Summer vacation and Reading Period begins
June 6	Friday	Spring Convocation
June 30	Monday	Final date for receipt of applications from mature applicants

Summer Session

June 30	Monday	Summer Session classes begin
July 1	Tuesday	Dominion Day
July 15	Tuesday	Normal closing date for appeals
July 30	Wednesday	Final date for payment of deposit against fees
Aug. 4	Monday	Civic Holiday
Aug. 9	Saturday	Summer Session classes end
Aug. 11	Monday	Summer Session examinations begin

Further information
Office of the Registrar
Trent University
Peterborough, Ontario
K9J 7B8

Phone (705) 748-1215

Photographs:
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