

Jodi Aoki

TRENT UNIVERSITY



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The Thirty-first Academic Year  
1994-95

TRENT UNIVERSITY  
CALENDAR



*Nunc cognosco ex parte*

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**Mission statement**

Trent University aspires to be Canada's outstanding small university known for its commitment to liberal undergraduate education in the humanities, social sciences and natural sciences and to the centrality of the individual student. Within a collegial setting the University offers undergraduate and graduate programs, both traditional and inter-disciplinary, which seek to advance learning through the creative interaction of teaching and research of the highest quality.

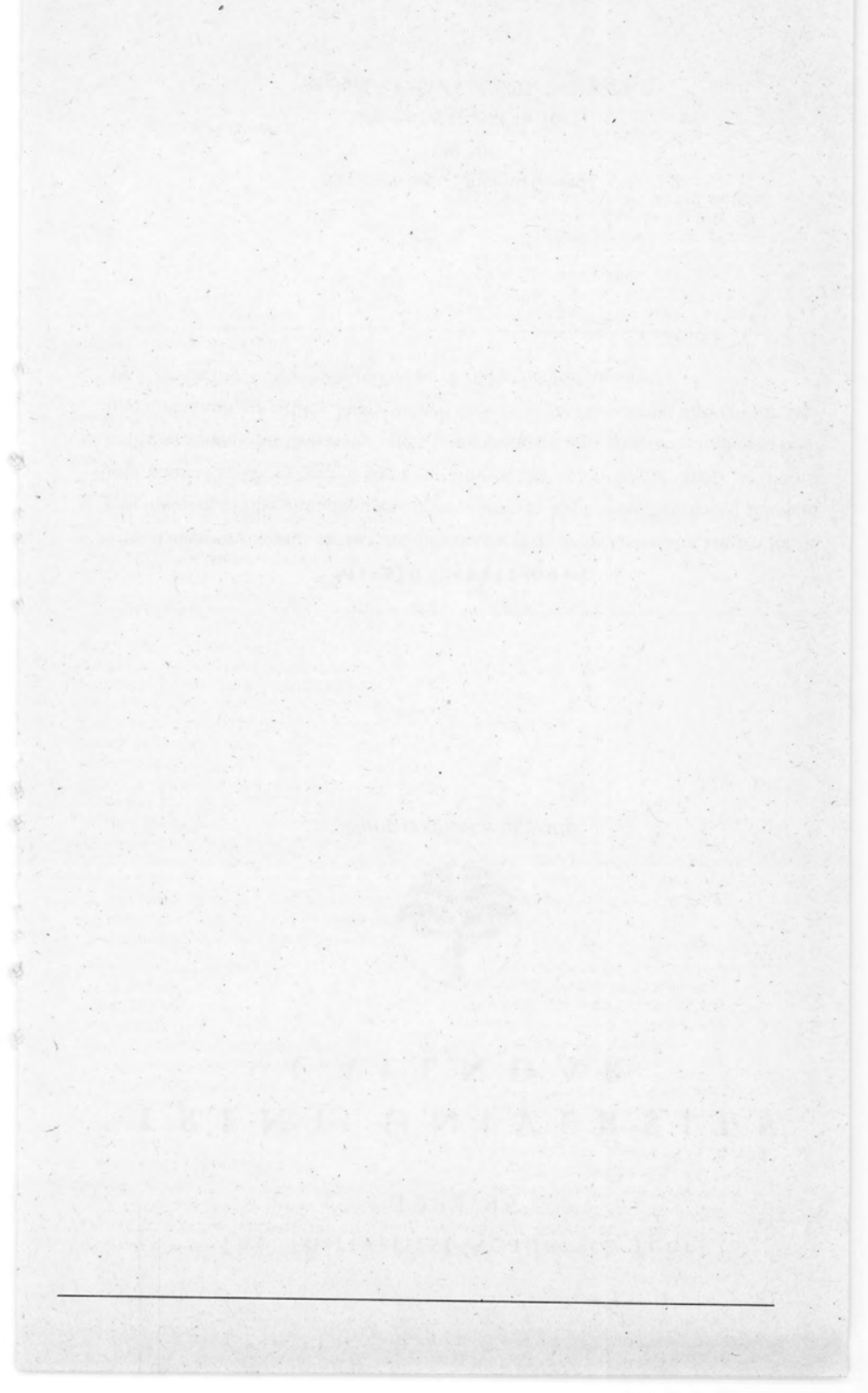
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Peterborough, Ontario, Canada.

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### **Important Notice**

The contents of this Calendar are not necessarily final and complete. Changes may occur in a number of areas including:

1. new faculty appointments or departures;
2. courses, including withdrawal of courses listed as being offered;
3. policies and procedures related to applications, admissions, and registration for new and returning students;
4. regulations;
5. fee structure;
6. the University Diary.

The University reserves the right to make and implement changes subsequent to the publication of this Calendar, as it deems appropriate.

**It is the responsibility of all students to familiarize themselves with the specific requirements for the degree or diploma which they seek. While advice and counselling is readily available, it is the students' responsibility to ensure that the courses in which they register are appropriate and sufficient to the program requirements. Students are bound by the regulations and policies of the University.**

No liability shall be incurred by Trent University for loss or damage suffered or incurred by any student or third party as a result of delays, suspension or termination of services, courses or classes, or other academic activities by reason of natural disasters, civil unrest or disobedience, labour disputes, work stoppages, strikes, lockouts, financial exigency, restrictive laws or governmental regulations, inability to procure materials or trades, weather, utility interruptions, damage to University property, or other happenings or occurrences beyond the reasonable control of Trent University.

### **Notes**

Every member of Trent University – faculty, staff or student – has a right to freedom from discrimination in the University by another faculty, staff or student member because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, record of offences, marital status, family status, or handicap.

Trent University recognizes its responsibility to those of its students, faculty and staff with special needs. It undertakes to ensure access to its academic programs and physical facilities, short of undue hardship, while protecting the academic integrity of the University.

Trent University is working towards becoming a smoke-free institution. Smoking is prohibited in most public areas including classrooms, but it is permitted in certain designated areas and in student study-bedrooms.

The Trent University Calendar is produced for the Office of the Provost and Dean of Arts and Science by the Communications Office.

Tours or visits to the University can be arranged by contacting the Registrar's Office, Trent University, Peterborough, Ontario K9J 7B8. (705) 748-1332.

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Readers are advised that changes may occur to the dates contained in the University Diary. Students will be notified if significant changes occur, and alterations in dates will be published in the Supplement to the Calendar in August.

## Summer Session 1994

(For Summer Session Deadline Dates See Chart)

May	13	Friday	<b>Final date for receipt of grades for incompletes and Letter of Permission courses for those planning to convocate in the Spring</b>
	17	Tuesday	Meeting of the Senate
	23	Monday	Statutory Holiday: "Victoria Day"
	30	Monday	Final date for payment of deposit against residence fees by returning students
June	2	Thursday	Meeting of the Board of Governors
	3	Friday	Spring Convocation
	15	Wednesday	Final date to request Summer Session Letters of Permission
			<b>Final date for receipt of applications and supporting documentation for full-time admission to Trent University</b>
	30	Thursday	Final date for receipt of grades for incompletes from the Fall/Winter Session
July	1	Friday	Statutory Holiday: "Canada Day"
	15	Friday	<b>Final date for appeals of full and b half courses</b> <b>Final date for receipt of appeals against academic penalties</b>
August	1	Monday	Statutory Holiday: "Civic Holiday"
	12	Friday	Final date to request Fall/Winter Session Letters of Permission
			Final date for receipt of applications, registration forms and supporting documentation from new and re-admit part-time applicants for admission to the University
	15	Monday	First instalment of fees is due for all students Deadline for Official Registration for continuing students

## Fall/Winter Session 1994-95

### Fall Term 1994

September	5	Monday	Statutory Holiday: "Labour Day" Arrival of new students
	6	Tuesday	Introductory Seminar Week begins
	9	Friday	Registration for new full-time students Final date for new full-time student registration, without late fee
			<b>Final date for receipt of Application for Degree/ Diploma Assessment for Fall eligibility</b>
	11	Sunday	Arrival of returning students
	12	Monday	Classes begin Beginning of formal course change period using Official Change Form
	16	Friday	<b>Final date for full-time re-admit and transfer students to register, without late fee</b>
	20	Tuesday	Meeting of the Senate
	23	Friday	Faculty Board Meeting
	26	Monday	<b>Final date for rebate on college fees for transfers from full- to part-time status</b>



September	30	Friday	<b>Final date for Summer Session appeals</b> <b>Final date for registration, with late fee</b> <b>Final date to change or add full and <i>a</i> half courses, without late fee</b> <b>Final date for receipt of grades for incompletes and Letter of Permission courses from Summer Session</b> Meeting of the Board of Governors
October	10	Monday	Statutory Holiday: "Thanksgiving Day"
	14	Friday	Faculty Board meeting
	18	Tuesday	Meeting of the Senate
	22	Saturday	Classes end
	24	Monday	Residential Reading and Laboratory Week begins
	28	Friday	Meeting of the Board of Governors
	31	Monday	Classes resume
			<b>Final date to change or add full and <i>a</i> half courses, with late fee</b>
November	11	Friday	<b>Final date for withdrawal from <i>a</i> half courses without academic penalty</b> Faculty Board meeting
	15	Tuesday	Meeting of the Senate
	25	Friday	Meeting of the Board of Governors
December	2	Friday	<b>Final date to request Letters of Permission for courses beginning January, 1995</b> <b>Final date for receipt of applications, registration forms and supporting documentation from new and re-admit part-time applicants for admission to the University for <i>b</i> half courses</b>
	9	Friday	Faculty Board meeting
	10	Saturday	Last day of classes
	12	Monday	Scheduled mid-term test and <i>a</i> half course final examination period begins
	13	Tuesday	Meeting of the Senate
	17	Saturday	Mid-term test and <i>a</i> half course final examination period ends, 10:30 p.m.
	18	Sunday	Winter Vacation and Reading Period begins
			College residences close
	25	Sunday	Statutory Holiday: "Christmas Day"
	26	Monday	Statutory Holiday: "Boxing Day"

### Winter Term 1995

January	1	Sunday	Statutory Holiday: "New Year's Day"
	6	Friday	Final date to change or add <i>b</i> half courses, without late fee
	8	Sunday	College residences open
	9	Monday	Classes resume
	15	Sunday	Second instalment of fees is due
			Final date for payment of outstanding bookstore and other accounts
	20	Friday	Faculty Board meeting
	24	Tuesday	Meeting of the Senate
	27	Friday	Meeting of the Board of Governors
			<b>Final date to change or add <i>b</i> half courses, with late fee</b>
	31	Tuesday	<b>Final date for receipt of Application for Degree/Diploma Assessment for Spring Convocation</b>
February	10	Friday	Faculty Board meeting

February	14	Tuesday	Meeting of the Senate <b>Final date for withdrawal from full Fall/Winter Session courses without academic penalty</b>
	18	Saturday	Classes end
	20	Monday	Residential Reading and Laboratory Week begins
	24	Friday	Meeting of the Board of Governors
	27	Monday	Classes resume
March	10	Friday	<b>Final date for withdrawal from b half courses without academic penalty</b> Faculty Board meeting
	14	Tuesday	Meeting of the Senate
	17	Friday	<b>Final date for appeals for a half courses</b>
	18	Saturday	Final date for resident students to apply for transfer between residential colleges
	31	Friday	Meeting of the Board of Governors
April	6	Thursday	Final date for full-time and part-time continuing students to early register, without late fee Application deadline to transfer from part-time to full-time studies
	7	Friday	Faculty Board meeting
	8	Saturday	Classes end
	11	Tuesday	Meeting of the Senate
	12	Wednesday	Examinations begin for b half and full courses
	14	Friday	Statutory Holiday: "Good Friday"
	28	Friday	Meeting of the Board of Governors
	29	Saturday	Examinations end for b half and full courses, 10:30 p.m. Final date for non-resident students to apply for residence

### Summer Session 1995

(For Summer Session Deadline Dates See Chart)

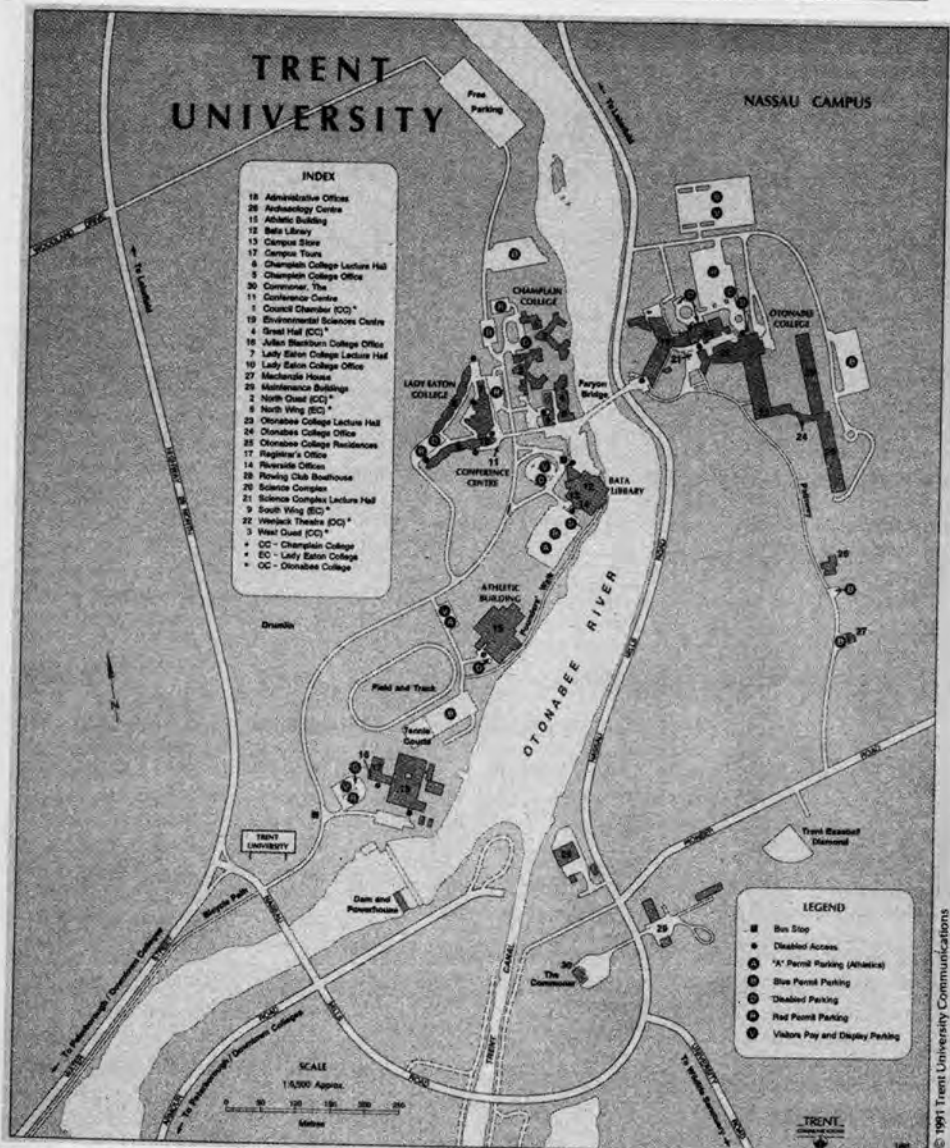
May	12	Friday	Final date for receipt of grades for incompletes and Letter of Permission courses for those planning to convocate in the Spring
	16	Tuesday	Meeting of the Senate
	22	Monday	Statutory Holiday: "Victoria Day"
June	1	Thursday	Final date for payment of deposit against residence fees by returning students Meeting of the Board of Governors
	2	Friday	Spring Convocation
	15	Thursday	Final date to request Summer Session Letters of Permission <b>Final date for receipt of applications and supporting documentation for full-time admission to Trent University</b>
	30	Friday	Final date for receipt of grades for incompletes from the Fall/Winter Session
July	1	Saturday	Statutory Holiday: "Canada Day"
	3	Monday	University is closed
	15	Saturday	<b>Final date for appeals of full and b half courses</b> <b>Final date for receipt of appeals against academic penalties</b>
August	7	Monday	Statutory Holiday: "Civic Holiday"
	11	Friday	Final date to request Fall/Winter Session Letters of Permission Final date for receipt of applications, registration forms and supporting documentation from new and re-admit part-time applicants for admission to the University
	15	Tuesday	First instalment of fees is due for all students Deadline for Official Registration for continuing students

**Summer Session Dates 1994**

	<b>8 week term</b>	<b>12 week term</b>	<b>6 week term</b>
Final date for receipt of applications for admission or re-admission with supporting documentation	April 15	April 15	June 13
Final date to register without late fee	April 25	April 25	June 27
Classes begin	May 2	May 2	July 4
Final date to register with late fee. Final date to add courses	May 16	May 16	July 11
Final date for withdrawal	June 1	June 14	July 27
Classes end	June 25	July 23	August 13
Examinations begin	June 28	July 25	August 15

**Summer Session Dates 1995**

	<b>8 week term</b>	<b>12 week term</b>	<b>6 week term</b>
Final date for receipt of applications for admission or re-admission with supporting documentation	April 14	April 14	June 12
Final date to register without late fee	April 24	April 24	June 26
Classes begin	May 1	May 1	July 4
Final date to register, with late fee. Final date to add courses	May 15	May 15	July 10
Final date for withdrawal	May 31	June 14	July 26
Classes end	June 26	July 24	August 15
Examinations begin	June 27	July 25	August 16



- 1 Lady Eaton College, Conference Centre
- 2 Lady Eaton College, Principal's Lodge
- 3 Lady Eaton College, South end of Quad
- 4 Lady Eaton College, North end of Quad
- 5 North of Lady Eaton & Champlain "N" Lot
- 6 Lady Eaton College, Pub Entrance "N" Lot
- 7 Champlain College, Centre of Quad
- 8 Champlain College, Kitchen
- 9 Lady Eaton College, Podium Level
- 10 Champlain College & Bata Library, Podium Level
- 11 Environmental Sciences Centre, Podium Level
- 12 Otonabee College, Porter's Office Entrance
- 13 Archaeology Building
- 14 Otonabee College, Residences, Link Entrance
- 15 Otonabee College, Wenjack Theatre
- 16 Bata Library, Bus Stop
- 17 Staging Building
- 18 Athletic Complex
- 19 Science Complex, Snack Bar Podium
- 20 Peter Robinson College, Sadfair House, Quad
- 21 Peter Robinson College, Townhouses
- 22 Peter Robinson College, Stratton House, Water St.
- 23 Catharine Parr Trail, Walls Hall, North Side
- 24 Catharine Parr Trail, Crawford House, Quad



# General Information

## History

Trent University stresses the importance of a liberal undergraduate education, which it looks upon as an education for the intelligent and informed 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 fields of interest intensively in close association with academic seniors.

Trent is one of the smallest and 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 thirty-first teaching year, the University has about 3,825 undergraduates in the full-time program, and about 3,075 in both the part-time winter and summer school programs. In addition, there are about 100 Master's degree candidates in the five fields in which graduate studies are offered. A doctoral program in Watershed Ecosystem Studies was introduced in 1994.

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 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. In 1967, the late Leslie M. Frost, former Prime Minister of Ontario, was elected first Chancellor of the University. The University was elected to full membership in the Association of Universities and Colleges of Canada in 1968.

Trent opened with two residential colleges and a teaching and administrative

complex in the heart of Peterborough. GE Canada 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, the late Ronald J. Thom, a long-range plan was developed and a program of construction undertaken which, while retaining 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 central administrative offices, along with recreational facilities including an athletic and recreation building, playing fields, an all-weather track and tennis courts on the Nassau Campus. The University's first two colleges remain in their original downtown locations, linked to the Nassau Campus by the city bus system. In addition to the five coeducational colleges, part-time study is offered through the Julian Blackburn College for continuing education.

Trent's master plan was devised on the twin foundations of the residential college and small-group teaching. The college 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 other 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.

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 cover prescribed material. Lectures are normally open to anyone.

At registration each student is assigned to an academic adviser or counsellor who is responsible for assisting with course selection and reviewing the student's progress at regular intervals. Ultimate responsibility for course selection must rest with the student. The tutorial and seminar system demands that a student distribute the work evenly throughout the academic year. The academic year is divided in two terms with a long recess in December, and one-week reading and laboratory recesses in late October and late February.

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## Peter Robinson College

### *Master*

Theresa Topic, PH.D.

### *Senior Tutor*

Zsuzsa Baross, PH.D.

### *Senior Dons*

Sue Hamer, B.A. and Robert Widdowson

### *Assistant to the Master*

Judy Johnson, B.A.

### *Honorary Director of Music*

P. MacKinnon

Peter Robinson College, named after one of the founders of Peterborough, was the first college to open in 1964 and the first to become coeducational in 1967. One of the two city colleges, it is located in converted older houses and new buildings which incorporate residence and academic areas. Sadleir House, the focus of college life, is a striking old Peterborough home which has been redesigned so as to integrate the features of the original architecture with the newer additions. Its location in Peterborough's north end and its size (Trent's smallest college) make Peter Robinson particularly appealing to those students who are interested in an

intimate university milieu which is not isolated from the city community.

Besides providing a strong base for traditional academic disciplines such as History, the college encourages interdisciplinary co-operation and is the home base for the Cultural Studies Program on the undergraduate level and two M.A. programs: The Frost Centre for Canadian Heritage and Development Studies and the Methodologies Program for the Study of Western History and Culture. The college strongly supports the arts in all its forms, and has an active program of visiting scholars, artists, broadcasters, musicians and cultural theorists. (Trent Radio is at the nearest corner.) The dining hall in Sadleir House, originally the hayloft for the stables, is the scene of a variety of theatre and music events.

Peter Robinson has always emphasized the need for student involvement in wider social issues in the community and abroad. The college provides a supportive environment for activities concerned with human rights, international, aboriginal and environmental issues. The offices of the Ontario Public Interest Research Group, the Trent Institute for the Study of Popular Culture and the Vanier Professor are located at the college.

Peter Robinson is the only college that has both conventional residential accommodation and single rooms in townhouses where each student has a study-bedroom and shares kitchen and living and dining room facilities with three or five others. College facilities include an 11,000 volume library, five pianos, a computer room, a darkroom, a recreation area with squash court and sauna, and a croquet lawn.

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## Catharine Parr Trail College

### *Principal*

Heather Avery, M.A.

### *Senior Tutor*

C.M. Greene, A.M., PH.D.

### *Senior Dons*

Ivana Elbl, M.A., PH.D.,  
and Martin Elbl, M.A.

### *Assistant to the Principal*

Lynn Neufeld, B.Sc.

Named in honour of the noted author, botanist and pioneer settler of the Peterborough area, Catharine Parr Traill College is one of the founding colleges of Trent University. An integral part of the academic and social life of Trent University as a whole, Traill College is also a self-contained and active community, beautifully situated on a drumlin overlooking central Peterborough. For those who wish to be involved both with the University and the local community, Traill College is an attractive home. Regular and frequent bus service connects the College with the Nassau Campus, while its central location gives easy access to the University Bookstore, the Peterborough Public Library, art galleries, movie theatres, live concerts, churches, restaurants and pubs.

The college consists of a number of old houses of architectural and historic significance, and one relatively modern building, Wallis Hall. These buildings together provide residence accommodation for 214 students, several apartments for faculty and staff who live in the college as residential dons, and a lodge for the College Principal. Teaching offices, seminar rooms, a lecture hall and the Academic Skills Centre are also housed in the various college buildings. Only Kerr House, however, is devoted solely to academic space. It houses the College Library, several study rooms including the Alan Wilson Reading Room for Canadian Studies, and a well-equipped microcomputer lab. The excellent facilities and quiet atmosphere make Kerr House a comfortable working environment for many resident and non-resident students.

In addition to being the base for the academic Departments of English, Classical Studies, Canadian Studies and Philosophy, Traill also has faculty members from most disciplines in the arts and sciences. It is thus an active centre for teaching and learning, not only for resident students, but also for Trent's large number of non-resident students, many of whom live in the neighbourhoods surrounding the College.

First-year students are invited to participate in the Traill College Seminars, weekly writing and discussion groups that allow students to explore ideas and issues of concern to them. The intellectual life of the college is supplemented as well by an active visitors program organized by students and faculty, which gives members of the college the opportunity

to meet informally with writers, artists, professionals, politicians, musicians and scholars. Last year's guests included criminal lawyer Clayton Ruby and Canadian novelist W.O. Mitchell. The College's proximity to downtown Peterborough has also permitted Traill students to be actively involved in community cultural organizations such as the Peterborough Symphony Orchestra and the Union Theatre, and in organizations working for social change, such as the Kawartha World Issues Centre and Amnesty International. Traill College is also the home of a very active Peer Aids Education Program.

Active, responsible student involvement has always been a feature of the college's life. Traill students have assumed leadership roles in the University Senate and the Trent Student Union, and true to the college's character, have even campaigned in local politics. The College Cabinet plays an important part in organizing academic and social activities for residents and non-residents alike. Facilities at their disposal include the college dining room (which is also used for movies, dances or concerts), The Trend (the student-run snack bar and pub) and various common rooms and lounges. The college also has a music room, pottery room, darkroom, exercise room, sauna, and outdoor tennis court, frequently used for ball hockey. Ice hockey is popular as well, and each year the college alumni return to Traill for its alumni hockey tournament.

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## Champlain College

### *Master*

S. W. Brown, M.A., PH.D., FSA (SCOT)

### *Distinguished Teaching Fellow*

Iswar Chakravarty, B.SC.(HONS), M.SC.,PH.D

### *Senior Tutor*

C. W. Tindale, M.A., PH.D.

### *Senior Don*

Jeff Macnab, B.A., B.ED.

### *Assistant to the Master*

Marian O'Brien

Champlain College, whose name 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 is widely acclaimed for its beauty. It provides

an appropriate setting for the casual and formal activities of college life.

The centre of the College is the impressive Great Hall and its adjacent common rooms. The two residential quads are divided into staircases with five single study-bedrooms clustered on each floor. Although the residence is co-educational, one section is reserved as women's residence. Tutorial offices for faculty fellows, dons' residences and seminar rooms are interspersed throughout the college. Non-residents share with residents the use of the common rooms, the squash court, music practice room, the Ceilie (a licensed pub and games room run by students that operates daily and hosts regular evening special functions) and Junior Common Room, Reading Carrels and the Morton Reading Room.

To the north, beyond the Master's Lodge, the playing field is suitable for a pick-up game of soccer, football, hockey, softball or frisbee.

The academic life of the College includes Champlain's Society (for guest speakers), the Scholars' Dinners and special lecture series. The student Cabinet, elected annually by the Champlain student body, organizes many social and cultural activities to supplement the regular curriculum, in particular, Harvest Weekend in the fall term and Bon Temps in the winter term. In co-operation with the faculty College Council, the Cabinet also shares in decisions affecting the administration of the college. Members of Champlain College have enjoyed a long tradition of active participation in University activities: athletic, social and communal. The College also offers annually a series of College Courses, short intensive non-credit explorations of cultural and intellectual topics. Past courses have included East Indian Culture and Heritage, Children's Literature, and Gardening.

## Lady Eaton College

### *Principal*

To be named.

### *Senior Tutor*

To be named.

### *Senior Don*

To be named.

### *Assistant to the Principal*

Ashley Mancuso, 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 Omeme and one of the original sponsors of the University, the college provides facilities designed to encourage academic and social interchange for a community of students and fellows in an international atmosphere.

Situated against a drumlin, the residential wings and Commons Block enclose a pleasant quadrangle. One-third of the south wing of the college building is reserved as a women's residence while the remainder of the south wing and the entire north wing house both men and women. In total there are 214 single study-bed-rooms, one apartment reserved for upper-year students and 12 double study-bed-rooms. On the first floor of the residence wings are the Principal's Lodge and six apartments for faculty and staff of the University who live in the college as residential dons. There are also offices for many of the fellows of Lady Eaton College as well as the departmental offices of Women's Studies, Mathematics, and Modern Languages (French, Spanish, German) and the offices of the Trent International Program and those of the Provost and Dean of Arts and Science. Teaching takes place in these offices as well as in the college's seminar rooms and lecture hall.

Non-resident members of the college living at home or in lodgings in Peterborough are full members of the college and are encouraged to participate in college activities and to use the T.V. room, the music practice room, the Junior Common Room, the student-run coffee shop (The Magpie), Crawpadies, and other facilities. The dining hall, a spacious and colourful room with small tables, has a warm and friendly atmosphere. It is also used for dances, concerts, and other special events. Extensive grass fields, ideal for a variety of pick-up sports, surround the college. The Athletic Complex and University Library are close by across the main driveway.

Art exhibitions are occasionally held in the college. They complement the permanent collection of the college, which includes Inuit sculptures, a gift from Lady Eaton.

A very active student government organizes and sponsors many college events in which students and faculty participate. These include intramural



sports, in which most students take part, a varied social program including regular events sponsored by Cabinet; The Drumline, a student publication and the Lady Eaton College section in the Trent Annual (yearbook).

Language tables organized by the Department of Modern Languages and Literatures hold informal weekly meetings in the college during meal times. Each year the College Visitors Program brings scholars, writers, performers, and public servants to the college to meet students and fellows and to present seminars and lectures. There are, in addition, regular open college symposia given by fellows of the college and guests on topics of special interest. The college has annually hosted a writer-in-residence program through which an eminent Canadian writer is available for one week of discussions, consultations and readings.

## Otonabee College

### *Head of College*

To be named.

### *Senior Tutor*

To be named.

### *Senior Don*

To be named.

### *College Assistant*

Pat Gage

The college's distinctive red-roofed buildings range along a cedar ridge overlooking the river from which the college derives its name (Ojibwa for "fast water"). To the east, an uninterrupted vista of rolling rural landscapes; to the west, the Faryon pedestrian bridge, providing easy access to the Bata Library, the Athletic Complex and the other Nassau Campus colleges.

Eight "houses" plus four resident dons' apartments and the residence of the Head of College, all of them connected by an interior walkway called "the Street", make up Otonabee's coeducational residence. Each house contains single and double study-bedrooms, laundry facilities, a kitchenette and a commons area.

Adjacent to the residence is the College Office where the College Head, College Assistant, College Secretary and Senior Tutor have their offices. Past "the Link", a set of faculty offices, are located the Junior Common Room, the Senior

Common Room, the Private Dining Room for smaller gatherings, and the public Dining Hall.

The academic wing of the college, directly connected to the Science Complex and the Environmental Sciences Centre, houses laboratories for Anthropology and Psychology; a Sociology resource area; the Native Studies lounge; several seminar rooms; teaching offices representing many of the disciplines in arts and sciences; and the Wenjack Theatre, which accommodates regular film-shows as well as theatrical productions by amateur and professional companies. Nearby are the Archaeology Centre, Mackenzie House and a wildlife sanctuary with walks and ski trails.

Students at Otonabee play a major role in organizing and conducting the cultural, social and athletic activities there. The Otonabee College Council, comprising student, staff and faculty representatives, has a student President; the Head of College chairs its Executive Committee. The Council, through its committees, sponsors a variety of events for its non-resident and resident members: visiting authors, artists, musicians; annual interhouse debating for the George Bernard Shaw award; college dinners and dances, a College Winter Weekend; the inter-house Olympics, and intramural co-educational competition in such sports as soccer, softball, volleyball and hockey. Members of the college also participate in the wider social, cultural and athletic activities of the University and the city of Peterborough, including various forms of community service.

## Julian Blackburn College for Continuing Education

### *Associate Dean and Principal*

To be named.

### *Academic Counsellor and Assistant to the Principal*

To be named.

### *Administrative Assistant*

Tui Menzies, M.A.

### *Administrative Secretary*

To be named.

Trent University's continuing education program was established in the early days of the University. Julian Blackburn

College is named in honour of the late Professor Julian Blackburn; he was a key adviser in the founding of Trent and had a deep commitment to continuing education.

The continuing education program at Trent makes available the University's academic program to those students who wish, for a variety of reasons, to take university credit courses either through part-time studies in Peterborough or part-time or full-time studies in Oshawa. In support of this aim, Trent maintains a flexible admissions policy, putting a high value on the applicant's maturity and motivation, an advantage to prospective students with varying educational backgrounds. Once admitted to the University, part-time students are free to enrol in any Trent course, on- or off-campus, provided they have the prerequisites for the course.

The Julian Blackburn College office is located in Blackburn Hall, the first building on the main campus. For the convenience of part-time students, especially those who prefer evening classes or the Oshawa location, Julian Blackburn College produces brochures for each academic session detailing on- and off-campus courses. These may be obtained directly from the college by calling (705) 748-1229.

### **Trent in Oshawa**

The University's largest permanent off-campus centre is in Oshawa, through which it also serves neighbouring communities including Newcastle, Bowmanville, Whitby, Ajax and Pickering. Consequently, Ontario's smallest university serves the largest population centre in the province without a university. Trent offers many credit courses each year in the Fall/Winter and Summer sessions, which lead to General B.A. or B.Sc. degrees in Anthropology, Cultural Studies, Economics, English Literature, History, Politics, Psychology and Sociology for students who study in Oshawa only, and to General and Honours B.A. and B.Sc. degrees in a number of other disciplines for students who can supplement their Oshawa courses with winter evening or summer courses taken on the main Trent campus. All Trent courses in Oshawa are taught at Durham College and all are outlined in the *Part-time Studies Summer and Fall/Winter Session Brochures*.

### **Fall/Winter On-Campus Late Afternoon and Evening Program**

Every Fall/Winter Session a large number of the University's regular courses are scheduled either in the 4:30 to 6:30 p.m. late afternoon or in the 7:00 to 10:00 p.m. evening periods. The courses to be offered in late afternoon or evening hours in the coming Fall/Winter Session are described in the *Part-time Studies Fall/Winter Session Brochure* which is published annually in June.

### **Fall/Winter Off-Campus Evening Program**

Every Fall/Winter Session the University offers courses at off-campus locations, the majority of these at Trent's primary off-campus centre in Oshawa. Details of these courses and any others which may be offered in other off-campus location are given in the *Part-time Studies Fall/Winter Session Brochure* mentioned above.

### **Spring Session**

A Spring Session of introductory-level courses is offered over a twelve-week period from late January to late April. Courses are offered in both Peterborough and Oshawa.

### **Summer On-Campus Program**

The Summer Session is divided into three parts: a twelve-week session in which courses are taught twice a week from early May to late July, an eight-week session from early May to late June, in which courses are taught three times a week, and a six-week session from early July to mid-August in which courses are taught four times a week. Details of the courses to be offered in the coming Summer Session are available in the *Part-time Studies Summer Session Brochure* which is published annually in February.

### **Summer Off-Campus Program**

The majority of Trent's off-campus summer courses are offered in Oshawa and fall into the same twelve-week, eight-week or six-week periods as on-campus summer courses. However, each summer the University offers a number of other courses at particular times or in special places: Archaeology field schools in the Arctic or in Central or South America; Geography field courses in the Rockies; Anthropology and Comparative Development Studies courses in South America. Details of all these courses are given annually in the *Part-time Studies Summer Session Brochure*.

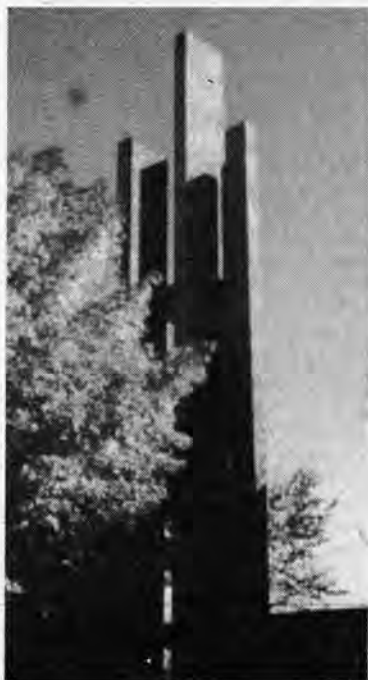
### Non-Degree Credit Courses

In addition to these credit courses leading to General or Honours degrees in Arts or Science, or to the degree of Bachelor of Administrative Studies, the college also provides non-degree business courses which are accepted by various business organizations as part of their professional certificate programs.

### Julian Blackburn College Students' Association

Part-time students have an active Students' Association which represents them on Senate and a variety of other University committees. All part-time students are automatically members of this association. Further information may be obtained by contacting the association at 748-1380.

**Further information** is available from Julian Blackburn College at (705) 748-1229. JBC provides a year-round counselling and information service for Oshawa area students at (905) 723-9747. During registration periods, the Oshawa Information Office accepts applications as a further service to Durham Region students. Written enquiries should be addressed to Julian Blackburn College, Trent University, Peterborough, Ontario K9J 7B8.



## Library

### University Librarian

M.W. Genoe, M.A., M.L.S., M.PHIL., M.P.A.

*Access Services Librarian*, J. Lauder, B.A., M.L.S.; *University Archivist*, B. Dodge, M.A. Ed.D.; *Collections Development Librarian*, A. McCalla, B.A., M.L.S.; *Government Publications and Maps Librarian*, B. Znamirovski, B.A., M.L.S.; *Information Services Librarian*, J.A. Wiseman, M.PHIL., PH.D., F.L.A. (on leave Jan.-July 1995); J. Millard, B.A., M.L.S.; *Monographs (Acquisitions and Catalogue) Librarian*, M. Scigliano, M.L.S. M.A.; *Monographs Librarian*, S. Elliott, B.A., M.L.S.; *Serials, Microforms, and Photoreproduction Services Librarian*, K. Field, B.MUS.ED., M.L.S.; *Acting Systems Librarian*, A. Darnell, M.L.S., M.A.

The University's Thomas J. Bata Library is adjacent to the University Court and is the focal point of the Nassau Campus. Bright, spacious and air-conditioned, it provides ideal study and research facilities for all student and staff requirements. The building also houses a number of administrative offices.

An automated library system, the Trent University Online Public Access Catalogue (TOPCAT), is a valuable resource serving the growing needs of all those using the library facilities available at Trent University. The town colleges, Durham College in Oshawa, Sir Sandford Fleming College and Peterborough Public Library are all connected to and/or accessible from Bata Library.

The library contains a collection of more than 461,328 volumes, 255,276 microforms, 2,801 serials subscriptions, 100,854 maps and air photos, and 188,745 government documents. Nearly all the material is available on open shelves and all members of the University are free to browse through the entire collection. The library also subscribes to a number of indexing and abstracting services in CD-ROM format. The following are currently available: Canadian Business and Current Affairs, Life Sciences, ERIC, Aquatic Science and Fisheries, Chemistry Citation Index, MLA Bibliography, Bibliography of Native North Americans, and OCAAT College Libraries. 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 additions as the G.M. Douglas Arctic collection, the Shell Canada Fund for Canadian literature, the Floyd Chalmers collection of Canadian Explorations and the A.J.M. Smith collection of Canadian poetry and literature. Other specialized collections include the Holm Collection of Children's Literature the Ernest Thompson Seton Collection; the Robert L. Hunter Canadiana Collection, the Trevor Lloyd Collection; and the Walter A. Kenyon Collection. Transcripts of the Royal Commission on the Economic Union and Development Prospects for Canada (MacDonald Commission) and the transcripts of the Mackenzie Valley Pipeline Inquiry are also valuable resources. The Feinberg Collection of Whitman and Twain material is on permanent loan from the Peterborough Public Library.

The Trent University Archives preserves non-current records of Trent University and historical records of the Trent Valley area. There are over 2,500 cubic feet of textual records-private, family, business and institutional papers-as well as 15,000 photographs, maps and other graphic items. Holdings are particularly strong in literary records, native studies records, World War I materials and business papers. There are several collections which provide primary research materials relating to women's studies. Most of the collection is unrestricted to researchers and provides excellent support for many academic programs at Trent University.

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 Messecar Foundation has provided direct support for Canadian studies. Additional support has been provided to build the Japan Foundation Collection.

The Government Publications and Maps Department is a major resource for all students. The Department serves as a regional depository for several

governments including the federal government of Canada, provincial government of Ontario and the United States Geological Survey. The Department offers a growing collection of electronic information including numeric databases, textual databases, electronic map and mapping software. Other important collections include parliamentary and legislative papers; statutes and regulations and other Canadian legal tools; first ministers conference papers; royal commission reports and transcripts; an extensive collection of Statistics Canada products including paper products, census disks and the CANSIM database; as well as regional publications. Some important cartographic resources include Canadian and international atlases and gazeteers; topographic maps; thematic maps; Ontario base maps; a travel map collection; as well as maps and aerial photography of the Peterborough/Kawartha region.

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 electronic mail communications and a daily courier service, expedites the delivery of materials between university libraries of Ontario and Quebec.

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## Alumni Association

The Trent University Alumni Association represents the 15,500 graduates of the University. The objectives of the association are to initiate and support activities which further the interests of the University, its students and alumni. It also endeavours to foster a spirit of fellowship among alumni.

The association serves the University by raising funds to support scholarships, bursaries, the library, the colleges and other special projects. The association participates in University governance and committee work and sponsors a number of events aimed at helping students.

The association offers its members a number of services including those which help keep alumni in contact with Trent and other alumni.

## Alumni Council

John Currie (President)  
 Mary Elizabeth Luka (Past President)  
 Paul Moore (Vice-President)  
 Kelly Elliot (2nd Vice-President)  
 T.H.B. Symons (Honorary President)  
 John Leishman  
 (Honorary Vice-President)  
 Michael Carr  
 Mary Crawford  
 Rod Cumming  
 Anne Godden Webster  
 Helen Kakaletris  
 Bob Morrison  
 Derek Teevan (Student representative)  
 Margie Lightbody (Board representative)  
 Tom Phillips (Board representative)  
 Cheryl Davies (Peterborough Chapter)  
 Sanchia Edwards (Toronto Chapter)  
 Fran Cooney (Kingston Chapter)  
 Denis Desjardins  
 (National Capital Chapter)  
 David Curko  
 (Kitchener-Waterloo Chapter)  
 Jamie & Liz Fleming  
 (Niagara Region Chapter)  
 Carol MacKinnon (Vancouver Chapter)  
 Tony Storey (Director of Alumni Affairs)  
 Kathleen Easson  
 (Alumni Affairs Assistant)  
 Cathy Kidd (Data Manager)  
 Liz Fleming (TrenT Editor)

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## Athletic Program

The University offers a comprehensive and diversified athletic and recreational program. The programs range from the more organized inter-university competition to completely informal recreational activities.

Located on the campus are rowing facilities, a full-size floodlit playing field, a 400-metre all-weather track, tennis courts, a gymnasium, a 25-metre pool, squash courts, a weight room and fitness centre, saunas and locker facilities.

Trent University is a full member of the Ontario Women's Intercollegiate Athletic Association, the Ontario Universities' Athletic Association, and the Canadian Interuniversity Athletic Union.

Interuniversity and intramural competition is organized in a wide range of activities which include badminton, basketball, cross-country running, fencing, hockey, rowing, rugby, skiing (nordic), soccer, softball, squash, tennis, touch football, field-hockey, volleyball, swimming, curling, golf and synchronized swimming.

## University Services

### Undergraduate Activities

The University has fostered the development of a rich and varied program of social and cultural activities. The early years of the University saw the establishment and lively growth of literary magazines, a radio service, a symphony orchestra\*, a concert band\*, a choir\*, community action programs, and of drama, art, debating and film societies, plus a student newspaper and a full range of other activities. Each of the college governments encourages a wide variety of formal and informal events.

Among the facilities offered by the City of Peterborough to members of the University are a fine public library, an art gallery, a museum, a symphony orchestra, a varied theatrical program, and regular visits by musical and theatrical companies, and outstanding speakers.

\*Students interested in joining either the orchestra, band or choir should contact the Trent University Music Society, c/o Peter Robinson College.

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## Student Services

Student Services provide a broad range of programs and services that are designed to support the educational experience of Trent University students. Depending on their needs, students may be assisted by any of the following offices: Counselling Services, Careers and Placement, Student Health Services, Financial Aid, Special Needs Services, Off-Campus Housing. Student Services representatives as well as students themselves sit on a variety of university-wide committees dealing with programs that serve all students at Trent University. These committees include: Committee on Colleges, Health Services Committee, Special Needs Committee, Transportation Committee, Introductory Seminar Committee, Dining Hall Services Committee.

### University Bookstore

The University operates a bookstore in the City of Peterborough which is easily reached from the University buses. The bookstore meets the wide range of needs and interests of the students, faculty, staff, and the Peterborough community.

Most 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, academic supporting stock, a wide range of periodicals, computer software and supplies, and books of general interest are made available. The bookstore seeks to create an atmosphere that will encourage the enjoyment of books and building of a private library. There are four "buy backs" held throughout the year.

### **Campus Store**

The Trent University Campus store is situated in Bata Library opposite the staff parking lot. The store meets the needs of the students living on or off residence, offering them a wide variety of items. In addition to regular variety store items, the Campus store has a wide selection of magazines, paperbacks, greeting cards, stationery and school supplies and toiletries. The store also has an extended line of crested ware, including glassware, sweatshirts, hats, t-shirts and the official Trent University jackets. The store is owned and operated by Trent University.

### **University Student Health Service**

#### *Director*

Ann Walters, Reg.N.  
Telephone: 748-1481

The University Student Health Service is located in Blackburn Hall and provides medical, nursing and counselling services for full-time and part-time students. Hours are 9 a.m. to noon and 1:30 to 4:30 p.m. Monday to Friday. Appointments are strongly encouraged. While every effort is made to see students promptly, drop-in students are seen on a first-come-first-served basis and waiting times vary by time of day, time of year and reason for visit.

The University requires *all* students to carry medical insurance. Any student without insurance is held personally responsible for his/her health care costs.

Students from Ontario must submit their Ontario Health Card number to the Student Health Service. Canadian students from outside Ontario (except for Québec) must submit valid health insurance numbers to the Health Service. Students from Québec and international students who seek medical treatment will be charged a fee for service which is normally recoverable through their health and medical insurance. The CIDA plan

is honoured for CIDA-sponsored students in the Trent International Program.

The Peterborough Ontario Health Insurance Program office is located at Park Lane Plaza, near Lansdowne and High Streets in the south end of the city (opposite Lansdowne Place), telephone 743-2140.

### **Students with Special Needs**

#### *Coordinator Special Needs*

Eunice Lund-Lucas  
Telephone: (705) 748-1281;  
TDD (705) 748-1482

Within its resources, Trent University endeavours to ensure the accessibility of its campus and programs to all students, including those with special needs. The University has a Special Needs Office, located on the ground floor of the Bata Library building, and a Coordinator for Special Needs, who provides support and advocacy on behalf of students with physical, sensory or learning disabilities. Some of the services provided by this office include transcription services for those who are visually impaired or learning disabled, assistance with obtaining note-takers for hearing-impaired students, exam invigilation services for students with a variety of special needs, and liaison with faculty members and with support agencies in the community. In addition, the Special Needs Office has available some adaptive technological aids such as a computer equipped with voice synthesizer, optical scanning equipment, computers, reading lamps, portable FM systems, four-track tape recorders and hand-held tape recorders.

Special needs students considering attending Trent are strongly encouraged to contact the Coordinator at the time of application since some action may be necessary in advance to accommodate the student's needs. Where appropriate, for example in the case of a learning disability, formal diagnosis and assessment of the condition will be required, normally a report prepared by a registered psychologist within the past two years. In all cases early identification of needs is extremely important.

Students with mobility impairments are strongly urged to visit the campus to determine its suitability to their needs and interests. Most buildings are equipped with ramps and/or elevators to provide access for persons with mobility difficulties.

Students with special needs are also encouraged to become aware of assistance that is available through various private and public agencies. For example, hearing-impaired students from Ontario may be able to get financial assistance for note-takers or tutors from the Vocational Rehabilitation Service of the Ministry of Community and Social Services or Educational Support Services of the Canadian Hearing Society. Students from other jurisdictions who have special needs should investigate the availability of assistance through such agencies in their home province or country.

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## Counselling and Careers Centre

### Counselling Services

#### Coordinator

Ada Meecham, M.A.  
Telephone: 748-1384

The student *Counselling Centre*, located in Blackburn Hall, is a resource provided by the University to promote the personal, academic and careers development of Trent students.

Many students seek help with specific concerns related to family and peer relationships, self confidence, stress, loneliness, sexuality or academic difficulties. Others bring less clearly defined problems such as low motivation or generalized anxiety, all of which can interfere with concentration and feelings of well-being and belonging. Students also request aid in defining their interests and abilities in order to make decisions about academic choices and career goals.

All counselling sessions are free, voluntary and confidential.

### Careers and Placement

#### Coordinator

Susan Welch  
Telephone: 748-1385

The student *Careers and Placement Centre*, located in Blackburn Hall, provides information on a wide variety of specific careers and employers, colleges or education and graduate and professional schools. It maintains a library containing up-to-date calendars from other Canadian universities and community colleges as well as books describing work and study abroad programs and

government employment programs. Materials concerning resumé writing, job-search techniques and interview skills are also available at the Centre.

Full-time, part-time and summer employment opportunities are available through the Centre, as is information about companies which plan recruitment activities both on and off the campus.

Office hours are Monday to Friday, 9 a.m. - 12:15 p.m. and 1:15 - 4:00 p.m.

### Off-Campus Housing Service

For the period May - September, the University operates a listing service of accommodation available in the community for students requiring off-campus housing.

For further information, contact the Assistant to the Master, Champlain College.

### Bus Service

A bus service operated by the City of Peterborough connects the Nassau Campus with the two town colleges and the bookstore. The compulsory transportation fee paid by full time students entitles the student to a bus pass which is honoured on all city buses from the Labour Day holiday in September to the Victoria Day holiday in May each year. Please see section on Ancillary fees, page 21, for information on compulsory transportation fee.

### Trent Day Care Centre

Telephone: 743-2811

The Trent Day Care Centre, Incorporated, is a separately incorporated child care facility which provides services in a building on the Nassau Campus owned by Trent University. Trent Day Care is open to the community as well as the University, but priority on the waiting list goes to Trent students and persons associated with the University. Early registration is urged.

### Computing Services

A wide variety of computing and communications resources are available to members of the Trent academic community in support of their research, learning, teaching and scholarship. These include various computer languages, applications and computer-based services available through VAX/VMS & UNIX time-sharing facilities, clusters of MS-DOS and Macintosh microcomputers, and a network of Unix work stations.

Some of these resources are accessible only through personalized computer accounts.

The use of Trent's computer facilities is available to all students and faculty free of charge. Use of the facilities is a privilege, not a right, and must comply with the "Trent University Computer User Code of Ethics".

## Academic Skills Centre

### *Coordinator Teaching Program*

Karen Taylor, M.A.

### *Coordinator Writing Program*

Lucille Strath, M.A.

The Academic Skills Centre offers both individual and group assistance in writing, critical and efficient reading, mathematics, and study skills. Any Trent student may use the services of the Centre; the length of the contact varies from a single session to regular, long-term assistance.

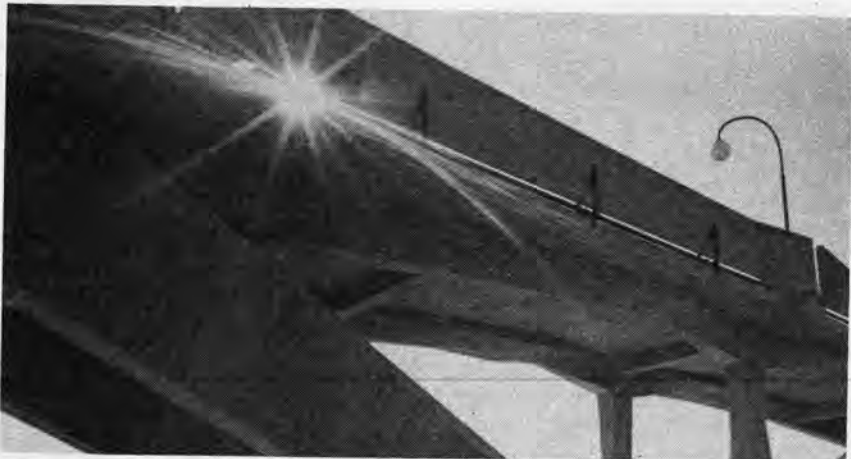
During Introductory Seminar Week the Centre administers a diagnostic writing exercise. On the basis of the results of this exercise, some students are advised to seek help either by taking workshops or by working one-to-one with an instructor.

Many students begin work at the Centre in the early weeks of their first year; however, students may come for help at any time throughout their years at Trent. While the Centre's main office is located at Traill College, some students may find it more convenient to meet with an instructor at one of the Champlain College offices. At Traill, there is a lending library of books on composition and study skills.

Students who would like the response of an instructor at any point during the essay-writing process - on reading, research, drafting, or revision - or those who seek a review of grammar, seminar presentation, study skills, or high school mathematics, may phone the Centre's secretary to enrol in a workshop or to arrange an appointment. Many students - even those who complete the diagnostic writing exercise with ease - find that taking the non-credit workshops early in the first year helps them get a good start in their course work.

Two groups of students who might be particularly interested in working with the Centre are students for whom English is a second language and special needs students. These students should make a special effort to visit the Centre early in the year or even before term begins.

The Centre's Writing Program writes, publishes, and distributes handbooks that assist students in achieving academic success. *Notes on the Preparation of Essays in the Arts and Sciences* is a guide to correct documentation and style; *Thinking It Through: A Practical Guide to Academic Essay Writing* covers the writing process and the requirements of an academic essay; *Clear, Correct, Creative: A Handbook for Writers of Academic Prose* covers conventional English grammar, style, and word usage; and *Making Your Mark: Learning to Do Well on Exams* helps students study throughout the academic year and prepare for exams. These books may be obtained by contacting the Academic Skills Centre by telephone (705) 748-1720, by facsimile (705) 748-1721, or by mail.





## Financial Information

### Fees

*All quoted fees are for 1993-94. Fees for 1994-95 should be available in March or April 1994.*

#### Payment of Undergraduate Fees

All fees are due by August 15, 1994.

Payment may be made in the following ways:

- payment in full by August 15, 1994 or documented evidence that fees will be paid from external support.

OR

- a payment of approximately 60% by August 15, 1994 (or proof of external support),

AND

- a payment, preferably by post-dated cheque, of the balance of all fees by no later than January 15, 1995 (or proof of external support).

In addition, all other accounts such as departmental charges for laboratory fees, field trips, etc. are to be included in the January 15, 1995, payment.

All payments from continuing students must be accompanied by a completed Payment Commitment Form.

Continuing students who still have an unpaid account from a previous academic session are required to include full payment of their account with the August 15, 1994 payment in order to become financially eligible to complete official registration.

Cheques or other remittances (please do not mail cash) should be made payable to Trent University and together with a completed Fee Payment Commitment Form mailed to Student Financial Services Office, Financial Services, Blackburn Hall, Trent University, Peterborough, Ontario, K9J 7B8.

There is a \$20 fee for cheques which are returned by the bank for NSF or other reasons. A cheque which covers the first instalment of fees which is returned by the bank results in the cancellation of the financial eligibility of a student and as a result the student's registration, unless the cheque is replaced immediately with a certified cheque. Generally, the University reserves the right to require a student to pay by certified cheque.

Students who receive financial assistance from OSAP, scholarships, bursaries or any other source which is

not available by August 15, 1993 may receive a payment deferment. Submission of a completed Fee Payment Commitment Form is still required. Students are required to make arrangements with the Financial Aid Office in Financial Services in Blackburn Hall prior to August 15, 1994. Deferments will normally only be granted to students who can show proof of financial assistance which can be confirmed by the University. There is a \$25 fee for a deferment.

The University will not consider registration to be complete until all financial requirements have been met by the student.

Students who have an outstanding account from a previous academic session will be excluded from early-registration in April and will not be allowed to register in any sub-subsequent session.

#### Tuition Fees

Students admitted to full-time studies (a course load of 3 1/2 courses or more) are required to pay full tuition fees. In 1993-94 this fee was \$2,026.

Students admitted to part-time studies pay one-fifth of the full-time tuition fee for each full course registered. In 1993-94 this fee was \$405 per full course, \$202.50 per half course.

A tax certificate for tuition fees assessed during the calendar year will be provided in February.

Special additional fees may be assessed directly by some departments for courses involving laboratory or field work, or for course material.

#### Ancillary Fees

All students admitted to full-time studies will be affiliated with one of the five residential colleges for full-time students, and will be required to pay the ancillary fees for full-time students. These include fees for Athletics, Health Services, Transportation (bus pass and some parking), College Activities and a Convocation fee. New students also pay a Introductory Seminar Week fee. In 1993-94 these fees were:

Athletics	\$109.00
Health Services	\$ 27.00
Transportation	\$124.00
College Activities	\$175.00
Convocation	\$ 11.25
Introductory Seminar Week	\$ 10.00

Students taking a full-time course load (i.e. 3 1/2 courses or more) in Oshawa pay part-time ancillary fees. Part-time student who specifically request the Registrar's

Office to be affiliated with a full-time residential college pay the full-time ancillary fees. However, if more than one full course is taken in Peterborough, the student is required to pay full-time student ancillary fees. For further information contact the Student Financial Services Office in Financial Services.

All students admitted to part-time studies will normally be affiliated with the University's College for part-time students (Julian Blackburn College).

If a part-time student wishes, for some exceptional reason, to be affiliated with one of the residential colleges for full-time students, he/she will be required to pay all the ancillary fees paid by full-time students. Continuing full-time students who register in part-time studies will retain their full-time college affiliation, and, as a result, be charged the full-time student ancillary fees, unless they specifically request through the Registrar's Office that the full-time college affiliation be changed to the College for part-time studies. Only then will they be charged the part-time ancillary fees. Continuing full-time students have until September 30 to make this change. After this date no change will be made and the students will be liable for the full-time ancillary fees.

Part-time students registered in courses offered in Peterborough pay ancillary fees for part-time students. These include fees for Athletics, Health Services, College Activities and a Convocation fee. In 1993-94 these fees were:

Athletics	\$31.00 per full course
Health Services	\$ 2.40 per full course
College Activities	\$27.00 per full course
Convocation	\$ 2.25 per full course

Part-time students who are required to visit the University's main campus three or more times per week on a regular basis are eligible to purchase a bus pass. Student bus passes are issued by the Student Financial Services Office in Financial Services in Blackburn Hall.

Part-time students registered in courses offered outside Peterborough, Oshawa for example, are not required to pay the ancillary fees for Athletics and Health Services.

### Residence Fees

Full room and board is provided in single and double accommodation in each of the five University Colleges. In addition, limited townhouse accommodation is available without meals. In 1993-94

residence fees were \$5,188 for single, \$4,909 for double and \$2,877 for townhouse.

Continuing full-time students interested in residence are required to submit a residence application form to the College Office by the end of March. A \$200 deposit paid directly to the College Office is due June 1 to confirm acceptance.

Full-time applicants to the University indicate on the college application form, which they submit directly to the Registrar's Office by June 1, their interest in residence. Students who are offered a space in residence are required to submit a \$200 residence deposit by the date indicated in the offer of residence to confirm acceptance.

Trent University offers accommodation in residence from early May to late August each year. For further information about rates please contact the Conference Office or one of the Colleges.

### Meals

The University's residence fees include the cost of a full meal plan (21 meals per week) for the academic year commencing immediately after introductory seminar week in September.

The Colleges encourage non-resident students to eat their meals in the College dining rooms. Therefore, the University offers special (non-refundable) meal plans to non-resident students at various levels of discounts. These meal plans may be purchased (they cannot be charged to a student's account) at the Student Financial Services Office, Financial Services in the Blackburn Hall. In 1993-94 the following special meal plans were available:

	1st Term	2nd Term
10 meals/week (30% discount)	\$ 657.17	\$ 751.05
21 meals/week (35% discount)	\$ 1,150.69	\$ 1,315.08

Students wishing to purchase a 21 meals/week mealplan for the two terms combined pay \$2,311.00 (40% discount).

Alternatively, non-resident students may purchase a package of 50 meal tickets (25 lunches and 25 dinners) for \$272.19 (15% discount) or a package of 21 meals at 11.5% discount (lunches for \$112.16 or 21 dinners \$125.51). Prices for 1994-95 should be available in March or April 1994.

### Student Government and Organization Fees

Student government and organization fees are determined by student referenda which are held under the supervision of the Trent University Student Union. All full-time and part-time students are required to pay student government and organization fees.

These fees are not refundable unless specifically noted. For full-time students these fees in 1993-94 included Trent Student Union \$30.25, Arthur \$9, Trent Film Society \$3, Trent Radio \$15, Trent Music Society \$2.50, Theatre Trent \$3, Trent International Students Association \$1.50, Peterborough Rape Centre \$3, Women's Centre \$1.75, Trent Annual \$18, WUSC \$2, Trent Student Union Student Health Plan \$61.09, The Commoner \$3, OPIRG \$9, OXFAM \$3, Peterborough Learner's Centre \$4, College Student Pubs \$2, Canadian Federation of Students \$4. (The Commoner, OPIRG, OXFAM, Trent Student Union [for Student Health Plan] and Peterborough Learner's Centre will provide refunds directly to students on request).

Part-time students pay a Student Association Fee and a For Tomorrow levy. In 1993-94 these fees were \$5.50 and \$5 per full course respectively.

### Other Fees

Additional fees at 1993-94 levels:

Transcripts - per copy	\$ 5.00
Academic Appeals	\$ 25.00
Letter of Permission for courses at other Universities	\$ 30.00
Degree Replacements	\$ 40.00
Document lamination	\$ 2.00
Replacement of tax tuition form:	
current session	\$ 5.00
previous session	\$ 15.00
Late Registration:	
prior to July 31	\$100.00
after July 31	\$200.00
Application to Trent by part-time students	\$ 25.00
Application for re-admission	\$ 25.00
Verification of registration	\$ 5.00
Assessment letter	\$ 10.00
Processing Withdrawal from the University prior to start of classes	\$ 50.00
Late course additions - per course	\$ 25.00
Trent International Program:	
Exchange application	\$100.00
Foreign university placement	\$ 75.00
Fee Payment instalment fee	\$ 30.00
Late 2nd instalment payment	\$ 50.00

Replace bus pass	
1st term	\$103.22
2nd term	\$ 55.08
Replace student I.D. card	\$ 10.00
Return cheque fee	\$ 20.00
Copy of OSAP application	\$ 3.00
Incorrect/incomplete OSAP application	\$ 5.00
Fee deferment application	\$ 25.00
Short-term loan application	\$ 10.00
Replacement of meal card	\$ 25.00
Replacement of library card	\$ 5.00
Residence appliance fee	\$ 20.00
Late college transfer application	\$100.00
Rental of library study carrels	\$ 8.00
Library fines for overdue books and lost material	various

### Textbooks

The cost of books and materials varies according to individual course requirements, with those for science courses tending to be more expensive than those for arts courses. Students should be prepared to spend approximately \$130 per course. Both new and used textbooks are available from the Trent University Bookstore. The Bookstore accepts personal cheques, MasterCard and Visa.

### Withdrawal From the University and Refund of Fees

Refunds are provided for all fees except those listed under Student Government and Student Organizations.

Full-time students who wish to withdraw from Trent University must visit their College Office to complete an official Withdrawal Form, obtain the signature of the College Head and return the student identification card (bus pass) and meal card (in case of a resident student). The student is then responsible for delivering the completed form to the Registrar's Office for the official recording and dating of the withdrawal for academic and refund purposes. The date the form is received by the Registrar's Office serves as the effective date for the Finance Office at which it will calculate the proportionate refund of fees. The Finance Office will not process a refund until it has received the student's bus pass (and meal card where applicable) from the College Office.

Part-time students who wish to withdraw are required to notify Registrar's Office in writing. The date the student's letter is received by the Registrar's Office becomes the effective date of course withdrawal and the date used to calculate the fee refund.

Fee refunds for withdrawals prior to the start of classes are subject to a \$50 processing charge.

The following (below) table outlines the percentages at certain dates during the academic year at which the fee refunds are calculated for full withdrawal from the University or for a course cancellation by a part-time student.

Note: Student Government and Organization Fees are not refundable and therefore are not included in the table below (except as specifically noted in the section).

### Students Changing From Full-Time to Part-Time and Refund of Fees

Students changing from full-time to part-time will be provided a pro-rated refund in tuition fees based on the date a completed Change of Course Registration Form is received by the Registrar's Office.

### Unpaid Student Accounts

Students who wish to pay their fees in two instalments will be assessed a \$30 instalment fee when the first instalment is due, i.e. August 15, 1994. Students who fail to pay the second instalment including all other accounts which are due by

January 15, 1995 will be assessed a \$50 late payment fee.

Unpaid accounts of students who are no longer registered with the University will be placed with a collection agency.

### Ineligibility to Return to the University for Financial Reasons

For all students who have not paid their University account in full by February 28, the Registrar's Office will change their academic status to Financially Ineligible to Return. These students will be excluded from early-registration in April and will be required to apply for re-admission to the University. Students in this status are still expected to complete the academic year, including the writing of any final examination; however, neither transcripts nor grade reports will be released for students having financial obligations to the University.

### Schedule of Undergraduate Fees

To assist students in their financial planning, a fee schedule, based on 1993-94 rates, is included. The actual fees for the 1994-95 academic year will not be available until March or April 1994 after they have been approved by the University's Board of Governors.

		Tuition Fees, Ancillary Fees		Residence, Meal Plan Fees		
		Full-time Full Year Course	Half Course	Residence	Meal Plan	Student Government Fees
13-Sep	19-Sep	90%	90%	82%	91%	0%
20-Sep	26-Sep	90%	80%	79%	88%	0%
27-Sep	03-Oct	90%	70%	76%	85%	0%
04-Oct	10-Oct	80%	70%	73%	82%	0%
11-Oct	17-Oct	80%	60%	70%	79%	0%
18-Oct	24-Oct	80%	50%	67%	76%	0%
25-Oct	31-Oct	70%	40%	64%	73%	0%
01-Nov	07-Nov	70%	30%	61%	70%	0%
08-Nov	14-Nov	70%	20%	58%	67%	0%
15-Nov	21-Nov	60%	0%	55%	64%	0%
22-Nov	28-Nov	60%	0%	52%	61%	0%
29-Nov	05-Dec	50%	0%	49%	58%	0%
06-Dec	12-Dec	40%	0%	46%	55%	0%
13-Dec	19-Dec			43%	52%	0%
20-Dec	26-Dec					
27-Dec	02-Jan					
03-Jan	09-Jan					
10-Jan	16-Jan	40%	90%	40%	49%	0%
17-Jan	23-Jan	40%	80%	37%	46%	0%
24-Jan	30-Jan	30%	70%	34%	43%	0%
31-Jan	06-Feb	30%	70%	31%	40%	0%
07-Feb	13-Feb	20%	60%	28%	37%	0%
14-Feb	20-Feb	0%	50%	25%	34%	0%
21-Feb	27-Feb	0%	40%	0%	31%	0%
28-Feb	06-Mar	0%	30%	0%	28%	0%
07-Mar	13-Mar	0%	20%	0%	25%	0%
14-Mar	20-Mar	0%	0%	0%	22%	0%
21-Mar	27-Mar	0%	0%	0%	19%	0%
28-Mar	03-Apr	0%	0%	0%	16%	0%
04-Apr	10-Apr	0%	0%	0%	13%	0%
11-Apr	17-Apr	0%	0%	0%	0%	0%
18-Apr	24-Apr	0%	0%	0%	0%	0%
25-Apr	01-May	0%	0%	0%	0%	0%

**Schedule of 1993-94 Fees**  
(Fees for 1994-95 will be available in March or April, 1994)

**Full-Time Undergraduate Students**

	Tuition	Residence	Ancillary	Student Government	Total Fees	First Instalment to Register Due Aug. 15/93	Second Instalment Due Jan. 15/94
<b>Students in Residence:</b>							
- single room	\$2,026.00	\$5,188.00	\$446.25	\$175.09	\$7,835.34	\$4,732.00	\$3,133.34
- double room	\$2,026.00	\$4,909.00	\$446.25	\$175.09	\$7,556.34	\$4,564.00	\$3,022.34
- townhouse	\$2,026.00	\$2,877.00	\$446.25	\$175.09	\$5,524.34	\$3,345.00	\$2,209.34
<b>Non-Residence:</b>							
Students	\$2,026.00		\$446.25	\$175.09	\$2,647.34	\$1,619.00	\$1,058.34

Visa students pay an additional \$5,613.00 in tuition fees.

The first instalment includes a \$30.00 instalment fee.

New students pay an additional \$10.00 Introductory Seminar Fee (not included above).

Part time students please refer to the Part Time studies calendar for information on fees.

## Student Aid

*Coordinator*  
Y. Del Mastro

### Ontario Student Assistance Program

The Province of Ontario and the Government of Canada provide loan assistance to university students through the Ontario Student Assistance Program. To qualify for Canada Student Loans the student and/or parents, guardians or sponsors must be Canadian Citizens or Permanent Residents. To qualify for Ontario Student Loans the student must also meet certain residency criteria.

The purpose of OSAP is to assist both full-time and part-time students when the financial resources available to them from parents, spouses, summer work or other sources are insufficient to meet estimated educational costs.

The following programs are funded by the Province of Ontario under the OSAP program.

#### The Ontario Special Bursary Plan

(OSBP) provides a limited number of bursaries to sole-support parents and students with disabilities who study on a part-time basis (maximum 60% course load). Tuition, books, travel costs and babysitting to a maximum of \$2,500 per year is available.

**The Child Care Bursary** is available to married students and sole-support parents who apply and qualify for OSAP assistance. Applications will be mailed directly by the Ministry of Education and Training to all students indicating child care costs on their OSAP application.

### The Bursary For Students with

**Disabilities** is available to students who incur disability related educational expenses. Students are encouraged to contact the Special Needs Office to obtain an application and discuss their needs.

### The Ontario Work Study Program

(OWSP) is funded by the Province of Ontario and provides part-time jobs on campus during the study period for full-time students (minimum 60% course load) whose financial needs are not met through the loan programs. Applications for these positions will be available at the Financial Aid Office in September.

Students can obtain applications and information on the OSAP program through their high school guidance office or from the Financial Aid Office Trent University.

### Financial Assistance for Students from Outside Ontario

Students from outside Ontario who require financial assistance in university are strongly urged to consult with officials in their schools about available provincial loan and bursary assistance.

Students from foreign countries are urged to consult with educational authorities in their own country.

The University has limited bursary funds to assist needy students not eligible for government assistance.

### Emergency Short-term Loan Funds

Loan funds are available on a short-term basis to help needy students meet emergency situations. Among these funds is the Henry and Mary Nokes Fund established by the Cobourg and District Labour Council to honour Mr. and Mrs.

Nokes, and augmented by private donors. Funds have also been made available through a joint undertaking of the Trent University Alumni Association, the Trent Student Union (Development Projects Fund) and the College Cabinets/Councils. A fund has also been established by the Major Bennett Chapter, IODE, Peterborough, Ontario.

## Bursaries

Bursary funds are intended to assist primarily in emergency situations. Bursaries are usually awarded in second term based on financial need and satisfactory academic achievement. Applications are available from the Financial Aid Office or the College Heads.

### **Eileen Allemang Bursary Fund**

This bursary is to be awarded to a student of Peter Robinson College based on academic achievement, financial need and contribution to college activities.

### **The Atkinson Charitable Foundation Bursaries**

These bursaries are awarded to deserving Ontario undergraduates based on academic achievement and financial need.

### **Barkley's of Avonmore Bursary**

Established by Fred Barkley of Avonmore this bursary will be awarded annually to a deserving student in any undergraduate year, who is a resident of a province other than Ontario.

### **Barley's of Avonmore Visa Bursary**

Established by Fred Barkley of Avonmore this bursary will be awarded annually to a deserving Visa student based on satisfactory academic achievement and financial need.

### **Beta Sigma Phi Bursary Fund**

Established through the local chapter of the Beta Sigma Phi with funds from the international division to be awarded to deserving students in any undergraduate year.

### **The Birks Family Foundation Bursary Fund**

This bursary will be awarded to a deserving student in any undergraduate year based on academic achievement and financial need.

### **The Bourinot Bursary Fund**

This bursary will be awarded annually to a full-time student from Peterborough County. Preference will be given to an employee of the Canadian Tire Store in Peterborough or a member of their immediate family.

### **Philip and Annie C. Black Award**

These awards are the gift of Isadore and the late Morris Black of Peterborough in memory of their father, Philip Black, the first Rabbi in Peterborough, and mother Annie.

### **Julian Blackburn College Student Association Bursary Fund**

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

### **Jacob F. Burnham Memorial Bursary**

The gift of Daisy McCarrell, a former employee of Trent University, two bursaries of \$500 each will be awarded annually based on financial need and satisfactory academic achievement. Preference will be given to students majoring in Economics, Administrative Studies, and related fields.

### **Dr. Leslie Calvert Award**

Named after one of Trent's first students of German, this award is for deserving students who require financial help to participate in the Year Abroad Program in Freiburg.

### **The Ron Campbell Bursary**

Established by Ron Campbell Enterprises, which operates McDonald's Restaurants in Peterborough and Lindsay, for students from Victoria and Peterborough Counties enrolled in Trent's Environmental and Resource Studies Program. This bursary will be awarded annually based on satisfactory academic achievement and financial need.

### **Champlain College Cabinet Bursary**

This bursary will be awarded annually to a Champlain College student with a minimum C- average and financial need. The recipient will be chosen by a committee of the Master, Assistant to the Master and the College Cabinet President.

### **Harry Cherney Memorial Bursary**

Established in memory of the late Harry Cherney by wife, Erica, his sons, Brian and Lawrence, family and friends, these bursaries will be awarded annually to students studying Administrative Studies Economics or Computer Studies, based on financial need and satisfactory academic achievement.

**Morris Christie Memorial Bursary**

Established in memory of Morris Christie by Karen and Mark Christie and family, to be awarded annually to deserving students based on satisfactory academic achievement and financial need with preference given to a student from the Third World.

**The City of Peterborough Employees' Awards**

The City of Peterborough Employees' Awards have been established by the employees of the City of Peterborough. These awards are available to any child or spouse of a City of Peterborough employee who requires financial assistance with tuition, or related costs, while attending Trent University. Applications will be available through the Personnel Office, City of Peterborough or Trent's Financial Aid Office.

**The Commoner Bursary Fund**

This bursary established by The Commoner Limited will be awarded annually to a full-time student based on financial need and a minimum C average.

**Community Service Bursary Program**

Established by the Quaker Oats Employees' Independent Union (Cereals), this bursary will be awarded annually to a full-time student from Peterborough County based on financial need and satisfactory academic achievement.

**County of Peterborough Bursary Fund**

Established by the County of Peterborough to be awarded to deserving students in any undergraduate year who have established a minimum two years residency in the County of Peterborough (which includes the fourteen townships and four villages), has satisfactory academic standing and a demonstrated financial need.

**The John S. Cunningham Memorial Bursary**

Established in memory of the late John Scott Cunningham by associates of Bell & Howell, friends, and fellow members of the Stoney Lake Cottagers Association, to be awarded to deserving students in any undergraduate year.

**The Dainard Foundation Bursary**

Established by Mr. Garnet Dainard, Peterborough, to be awarded to deserving students in any undergraduate year.

**The Ewing Memorial Honours Awards**

A number of awards are available annually to students of high academic standing entering the fourth year.

Interested students are encouraged to apply for these awards through the University Financial Aid Office. These awards are the gift of the late C.W. Ewing, a native of Warkworth.

**Reginald R. Faryon Bursary**

The award is the gift of the Peterborough Branch of B'nai B'rith in memory of Reginald R. Faryon.

**The Michael Frisch Memorial Bursary**

Established in memory of the late Michael Frisch, to be awarded to an undergraduate student who is actively involved in extracurricular activities within or beyond the university.

**The Eileen Gallagher Memorial Bursary**

The gift of alumni, family and friends, this bursary will be awarded to deserving Otonabee College students demonstrating financial need, chosen by the Head of College in consultation with the Director of Alumni Affairs.

**German Studies Bursary**

These bursaries will be awarded annually to students majoring in German Studies in second year or higher, who have achieved a minimum B average in the preceding year and have demonstrated financial need.

**Jon K. Grant Bursary Fund**

This fund has been established in honour of Jon K. Grant in recognition of his distinguished contribution to Trent University as Chairman of The Fund for Excellence campaign, April 1, 1982 to March 30, 1987. The bursaries will be awarded to deserving students based on academic achievement and financial need. Distinction in cultural, athletic or other community activities may also be considered.

**The Hamilton Foundation—Chaney-Ensign Bursary Fund**

Bursaries are available to assist financially needy undergraduate and postgraduate students. Applicants must be graduates of Hamilton secondary schools, public or separate.

**Naomi Harder Memorial Bursary Fund**

Established by family and friends in memory of Naomi S. Harder, a second year Comparative Development major at Trent University at the time of her death on December 19, 1988. In the spirit of Naomi's concern for others and her deep commitment to international understanding, this bursary will be awarded annually

to a student based on his/her dedication to international and national development, peace and justice issues financial need and satisfactory academic standing.

#### **The Brian Heene Memorial Award**

Established in memory of the late Brian Heene, Vice-President (Academic) and Provost of Trent University at the time of his death on September 17, 1983. This award valued at \$1,000 will be given annually to a graduate from Lakefield College School or Lakefield District Secondary School who enrolls at Trent in the undergraduate program. The award will be based on academic standing, financial need and distinction in cultural, athletic or other community activities. Applications may be made through the Financial Aid Office.

#### **Victor E. Henderson Bursary Fund**

These bursaries are named in honour of Victor E. Henderson, local campaign chairman of the Trent University Second Decade Fund. The Henderson Bursaries will be awarded to deserving students from Peterborough County based on academic achievement, financial need, and distinction in cultural, athletic or other community activities.

#### **Henniger/Pilkington Bursary Fund**

To honour Perry and Ella Henniger and Lawrence and Norah Pilkington, the parents of Jim and Isabel Henniger, this bursary is awarded annually to a well rounded student(s), actively involved in the life of the university, be it student government, sports or music programs or university clubs, while maintaining satisfactory academic achievement. This renewable bursary is available to second, third or fourth year students in financial need.

#### **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.

#### **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, majoring in sciences or business related programs.

#### **The David Irwin Memorial Bursary**

This bursary, established in memory of David Sutherland Irwin, a member of Trent's first graduating class and a former Professor of Biochemistry, is awarded on the basis of academic standing and

financial need to a student entering the third or fourth year of an Honours Program in Chemistry or Biochemistry.

#### **Jean Ann Johnston-Gauld Bursary**

These bursaries, the gift of the family in memory of Jean Ann Johnston-Gauld a part-time student at Trent University from 1982-85, will be awarded annually to part-time students based on satisfactory academic achievement and financial need.

#### **Rhoda Johnston Memorial Bursary**

These bursaries, the gift of Robert Johnston in memory of his wife Rhoda, a long term past employee of Trent University, will be awarded annually to deserving undergraduate students in a Canadian Studies program. Bursaries of up to \$1,000 will be awarded on the basis of academic achievement and financial need.

#### **Principal H.R.H. Kenner and PCVS Faculty Award**

This award was established by the PCVS Form 5 graduating class of 1937 in honour of Principal Kenner and their teachers. Support has also come from the class of 1939. Bursaries will be awarded to graduates of secondary schools in Peterborough County based on academic achievement and financial need.

#### **The Keppler Bursaries of German Studies**

Established by Hans and Christine Keppler, to be awarded annually to upper-year students studying German, based on financial need and satisfactory academic achievement.

#### **Kiwanis Club of Peterborough Bursary**

A bursary of \$500 will be awarded annually to a student in second year or higher majoring in Administrative Studies, Computer Studies or Economics. Applicants must be residents of the City or County of Peterborough.

#### **Lady Eaton College Students' Bursary Fund**

This bursary is to be awarded to a student of Lady Eaton College who can demonstrate financial need.

#### **The Leonard Foundation Bursaries**

Bursaries averaging \$1,250 are available to financially needy students. Preference will be given to sons and daughters of clergy, teachers, military personnel, graduates of Royal Military College members of the Engineering Institute of Canada and the Mining and Metallurgical Institute of Canada. Application deadline date is March 15th.



**Louis and Bess Loftus Fellowship Bursary**

Established by Barnet David Loftus in memory of his parents. These bursaries will be awarded annually to deserving students in any year showing satisfactory academic achievement and financial need.

**Malcolm Montgomery Bursary Fund**

These bursaries, a bequest from the estate of the late Malcolm Montgomery, will be awarded to needy students in the fourth year of the Native Studies Honours program.

**Marriott Corporation Bursary Fund**

Established by Marriott Corporation to be awarded to deserving students in any undergraduate year based on satisfactory academic standing and financial need.

**The Masonic Foundation of Ontario**

The Foundation aims to provide assistance for students near graduation who cannot complete their year owing to a sudden personal emergency.

**John C. McDonald Memorial Fund**

Assistance from this fund, established in memory of Professor John C. McDonald former Chairman of the Department of Sociology, is awarded to deserving students who need financial help to continue their studies at Trent University.

**William Hamilton Munro Bursary Fund**

These bursaries, the gift of the late Mrs. Angele Munro in memory of her husband William Hamilton Munro, are to be awarded to deserving students in any undergraduate year.

**Native Studies Bursary Funds**

The Department of Native Studies provides bursaries for students of Metis and non-status Indian ancestry who do not qualify for educational assistance from the Department of Indian and Northern Affairs. Native students who can establish financial need and have been admitted to Trent University are encouraged to apply.

**Ontario Credit Union Charitable Foundation Bursary**

A bursary of \$250 will be awarded annually to a Trent student who is a Canadian citizen or permanent resident in second, third, or fourth year of a Business Management Program, based on satisfactory academic achievement and financial need.

**Ontario Housing Corporation Bursary**

OHC will award bursaries to talented students living in OHC accommodations to undertake post-secondary education.

**Ontario Public School Teachers' Federation Bursary**

Established by the Ontario Public School Men Teachers Federation to provide assistance for deserving students of Metis and non-status Indian ancestry.

**Otonabee College Council Tenth Year Bursary**

This bursary of a value of no less than \$150 is to be awarded annually to an Otonabee College student on the basis of academic performance (B average or better), athletic ability and participation within the community. The recipient will be chosen by a committee of the Master, the Senior Tutor, the President and Vice-President of College Council.

**Peter Robinson Bursary Fund**

These bursaries, a bequest from the estate of the late Lady Maude E. Robinson are to be awarded annually in the name of Peter Robinson, the founder of Peterborough and the brother of Sir John Beverley Robinson, 1st Baronet, to deserving students of Peter Robinson College, demonstrating financial need.

**Peterborough Professional Fire Fighters' Bursary**

Established from gifts to Trent's Second Decade Fund by the Peterborough Professional Fire Fighters Local Number 519, these bursaries will be awarded annually to students at Trent University.

**The Scott Rennie Memorial Bursary**

This bursary, the gift of alumni, family and friends, is in memory of Scott Rennie, an alumnus of Otonabee College. The bursary will be awarded to a deserving Otonabee College student to be chosen by the Master of the College in conjunction with the Director of Alumni Affairs.

**Royal Canadian Legion Bursary**

Bursary assistance of up to \$500 is available for: a) War veterans and their sons and daughters; b) Ordinary members of the Legion and their sons and daughters; c) Associate members of the Legion and their sons and daughters d) Ladies Auxiliary members and their sons and daughters. Awards are determined by the District Bursary Committee.

**Setsu Suzuki Bursary**

Donated by David Suzuki in memory of his mother, Setsu Suzuki, to be awarded to a deserving student from the Third World on the basis of academic standing and financial need.

**Sir Sandford Fleming College Award**

Established by Sir Sandford Fleming College in recognition of Trent's 25th anniversary and to acknowledge the excellent relationship between our institutions, this award for a value of full tuition will be made annually to a graduate of SSFC enrolled at Trent University in a full-time or part-time program based on academic achievement and financial need.

**Sisters of St. Joseph of Peterborough Bursaries**

These bursaries, the gift of the Sisters of St. Joseph of Peterborough, are to be awarded on the basis of need and academic achievement to students completing the Teacher Education Program for use in their fourth year at Queen's University.

**Bill and Dorothy Slavin Bursary**

Established by members of the Slavin family, in memory of their parents, Bill and Dorothy Slavin, to be awarded to a deserving student from a developing country on the basis of academic standing and financial need.

**The J. Herbert Smith Bursary**

Established by J. Herbert Smith to be awarded annually to a deserving student in their undergraduate year. As Chief Executive Officer, Dr. Smith was instrumental in arranging for the original gift of land to Trent University by GE Canada.

**William and Margaret Taylor Bursary**

This bursary, the gift of William E. Taylor, Jr., is to be awarded annually in memory of William and Margaret Taylor to a deserving undergraduate student demonstrating financial need. Preference will be given to orphans, native students and Canadian Studies majors.

**The Roland Tedford Bursary**

Established by Garth Duff in memory of Roland Tedford, former Warden of Peterborough County and Reeve of Douro Township. Two bursaries of \$500 will be awarded annually based on financial need and satisfactory academic progress with preference given to students from Douro and Dummer Townships.

**Catharine Parr Traill College Students' Bursary Fund**

This bursary is to be awarded to a student of Catharine Parr Traill College who can demonstrate financial need.

**William Thompson Graduate Bursary**

This bursary, a bequest from the estate of the late William Thompson (1891-1978) of Westwood, Ontario, will be awarded annually to a student registered in a graduate program, based on financial need and satisfactory academic progress.

**Trent University Alumni Bursary**

Established by the Trent University Alumni Association, to be awarded to returning students on the basis of need, significant contribution to university life, and an acceptable academic average.

**TUFA Bursary**

These bursaries are funded by the faculty and professional librarian members of the Trent University Faculty Association. They will be awarded annually to students in second year or higher, who achieved a minimum B average in the preceding year and have demonstrated financial need.

**The Trent University S & A Bursaries**

The employees of Trent University have donated bursaries up to \$500 to be awarded to students who demonstrate financial need, all-round achievement and character, and are permanent residents of the Province of Ontario.

**Trent Student Union Bursary**

Established by the Trent Student Union, this bursary will be awarded annually on the basis of academic achievement and financial need.

**University Women's Club 50th Anniversary Award**

Established by the University Women's Club of Peterborough in 1987 in honour of their 50th anniversary, an award of \$500 will be made annually to a deserving student currently registered in the fourth year of an Honours program and proceeding to graduate studies at Trent University. The award will be based on financial need and academic achievement.

**Visa Student Bursary Fund**

Established by the Board of Governors of Trent University to be awarded to visa students in any undergraduate year with satisfactory academic standing and who can demonstrate financial need.

**The Walling Corporation Bursary**

Established by the Walling Corporation of Lindsay, these bursaries will be awarded annually to students majoring in business or environmental studies, based on financial need as well as fitness/health and community involvement.

## Scholarships and Prizes

### Scholarships

The University has a full and diverse scholarship program designed to foster and reward high academic achievement among its students. Funding for the program comes not only from the University itself, but also from the many private donors whose generosity has created a wide range of endowed scholarships and prizes.

Trent University offers both entrance and in-course scholarships. All new students entering the University are automatically considered for entrance scholarships. No separate application for any major scholarship is required, with the exception of the Champlain Scholarship. Likewise, no separate application is required for in-course scholarships, since all continuing Trent students are automatically considered for such scholarships, normally upon completion of each sequence of five full courses or equivalent.

Trent University's most prestigious scholarship, the Champlain Scholarship, is a renewable scholarship awarded to a new student entering the first year of study who has displayed exceptional academic and extra-curricular achievement and is likely to make a significant contribution to the life of the University. Students must apply for the Champlain Scholarship.

All University scholarships may be held in conjunction with scholarships awarded by outside agencies when their conditions permit. However, a student may not receive funds from more than one major Trent University scholarship in an academic year. Holders of renewable scholarships must maintain a minimum average of 80% in a sequence of five full courses in order for their scholarship to be renewed. The University endeavours to provide all scholarship holders, including those from the Peterborough area, with places in residence if they wish them.

#### The Bata Scholarship

This scholarship is the gift of Thomas J. Bata, one of the original honorary sponsors of the University and a member of the Board of Governors.

#### Biology Department Scholarship

This scholarship is awarded annually to a student, entering the third or fourth year of the Biology program, with high academic achievement and promise.

#### The B.P. Canada Science Scholarship

This scholarship, the gift of B.P. Canada is awarded annually to an entering or in-course student who has demonstrated academic excellence in the physical sciences.

#### Julian Blackburn College Principal's Scholarship

A tuition-based scholarship to be awarded to a student who is enrolled in the part-time credit program, who has completed at least five full courses or the equivalent as a part-time student at Trent and who has demonstrated high overall academic achievement.

#### Maurice Boote Scholarship

This scholarship, established in honour of Maurice J. Boote, one of the founding faculty members of Trent University and the first Chair of the Department of Economics, is awarded annually to an outstanding student entering the fourth quarter of the Economics program.

#### 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 Canadian Tire Corporation Science Scholarship

This scholarship, the gift of the Canadian Tire Corporation Limited of the value of \$1,000, is awarded annually for excellence in science to an entering or in-course student proceeding to a Bachelor of Science degree.

#### The Anthony Cekota Scholarships

These scholarships were established to honour Anthony Cekota. A self-made man, Mr. Cekota edited and published a chain of magazines and newspapers in his native Czechoslovakia. He also authored several books and papers dealing with problems of industrial management and sociology and continued as a consultant and advisor on industrial relations following his retirement (after 45 years with the Bata Shoe organization). These scholarships are awarded on an annual basis to students demonstrating exceptional academic performance.

#### The Champlain Scholarship

The Champlain Scholarship is available for an entering first year student of exceptionally high academic achievement and promise. This scholarship covers full tuition fees and, for students living in residence full residence fees. This scholarship is renewable each year so

long as the holder's work is of scholarship standing. New applicants to the University must apply for the Champlain Scholarship.

#### **The Sylvia Cherney Scholarship**

The Sylvia Cherney Scholarship, the gift of the late 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 Howard Darling Scholarship**

This scholarship, established in honour of Howard Darling Supervisor, Grounds and Custodial Services, is awarded annually to an upper-year student who has demonstrated excellence in Environmental Sciences/Studies.

#### **The Roscoe F. Downey Scholarship**

The scholarship, the gift of the late Roscoe F. Downey of Peterborough, is available to entering students, one from Peterborough County and one from Victoria County.

#### **William Paxton Eastwood Scholarship**

The gift of the late William Paxton Eastwood, a former citizen of Peterborough and Ocala, Florida, is awarded in recognition of academic excellence.

#### **The Roy L. Edwards Scholarship**

This scholarship, established in honour of Roy L. Edwards, one of the founding faculty members of Trent University and the first Chair of the Department of Biology is awarded annually to an outstanding biology student entering the fourth quarter of the biology program, with the aim of encouraging promise and interest in the study of freshwater ecology.

#### **The Ewing Memorial Scholarships and Honours Awards**

Several awards are available each year for students entering the University and for Honours students undertaking a fourth year of study. These scholarships are the gift of the late C.W. Ewing, a native of Warkworth, Ontario.

#### **Faculty Scholarship**

A scholarship, the gift of a member of the founding academic staff of Trent University, is available to an entering student living in residence.

#### **The Reginald R. Faryon Scholarships**

These scholarships, the gift of 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.

#### **The Eugene Forsey Scholarships**

These scholarships are named in honour of Senator Eugene Forsey, a former Chancellor of the University and a member of the Board of Governors for ten years. The scholarships are awarded annually to outstanding students proceeding toward a degree in Administrative Studies.

#### **Robert M. Fowler Scholarship**

This scholarship is a gift of the Quaker Oats Company of Canada in memory of the late Robert M. Fowler a former member of the Board of Directors of Quaker Oats and of the Board of Governors of Trent University. The scholarship is awarded annually to students in the Administrative Studies Program and to other students undertaking policy studies in other appropriate university departments.

#### **The Rufus Gibbs Scholarships**

These scholarships, the gift of the late Rufus C. Gibbs, 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**

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

#### **The Hector and Geraldine Elizabeth Gray Scholarship**

This scholarship, the gift of the late Hector and Geraldine Elizabeth Gray, is awarded annually to students entering the third year of an Arts program.

#### **The Brian Heeny Scholarship**

Established as a memorial by his family friends and colleagues, this renewable scholarship covers half the cost of tuition, residence and miscellaneous fees and will be awarded annually to an outstanding student entering first year. A room is reserved in Champlain College for the scholar.

#### **The Heritage Scholarship**

This scholarship honours the Curtis and Milburn families, both of whom were very early settlers of the Peterborough area and

have contributed continuously to its development. The scholarship is awarded annually to an outstanding student entering the final year of honours in English.

#### **The Howson Scholarship**

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

#### **The Imasco Scholarship**

These scholarships, the gift of Imasco Ltd., are available to students of high academic achievement entering first or higher years in the University.

#### **The Richard B. Johnston Scholarship**

A scholarship, donated by the family of Professor Richard B. Johnston of the Department of Anthropology in his memory is awarded to a deserving student in North American archaeology.

#### **The Francis Dean Kerr Scholarship**

This 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.

#### **Margaret Laurence Scholarship**

This scholarship, named in honour of the late Margaret Laurence, a former Chancellor of the University, is awarded annually for outstanding achievement in the fields of Canadian Literature or Canadian Studies.

#### **The Lodge Physics Scholarship**

This scholarship, named in honour of the founding Chair of the Department of Physics, is awarded annually to the student with the highest grade in the Introductory Physics course who is continuing in a program which leads to a single- or joint-major in Physics, or who is continuing in the Chemical Physics program and enrolled in at least one Physics course at an advanced level.

#### **The Dr. Ross Matthews Scholarship**

This scholarship, established in honour of the late Dr. Ross Matthews, is awarded annually to an entering student for demonstrated academic excellence.

#### **The Ralph McEwen Scholarship**

These scholarships, established in honour of the late Ralph McEwen are awarded annually to students who are undertaking courses in Canadian Literature or Canadian Social History.

#### **The William Allan Newell Scholarship**

This scholarship, the gift of the late Judson Newell of Prescott, named in honour of his father, the chairman and founder of the Newell Manufacturing Co., Ltd., is available to an entering student proceeding to the degree of Bachelor of Science.

#### **The Robert J.D. Page Scholarship in Environmental and Resource Studies**

This scholarship, established by Dr. Robert J.D. Page who was associated with the ERS Program from its beginning, is to be awarded annually to a student entering fourth year who best combines academic achievement and public environmental service.

#### **Peter L. Roach Scholarship**

This scholarship was established in honour of Peter L. Roach, Director of Education from 1975 to 1992 in recognition of his years of service to the Peterborough Victoria Northumberland and Newcastle Roman Catholic Separate School Board. In selecting the recipient, priority will be given to a student who has studied in the P.V.N.N. Separate School system. The funding for this scholarship was provided by the employees of the P.V.N.N. Separate School Board through the For Tomorrow Campaign and the friends and associates of Mr. Peter Roach.

#### **The J.J. Robinette Scholarships**

These scholarships were established by friends and colleagues to honour the 60th anniversary of Dr. J.J. Robinette's call to the Bar. He was a member of the first Board of Governors of Trent University and Chancellor from 1984 to 1987.

#### **The Peter Robinson Scholarship**

This scholarship, of the value of \$1,000, is awarded to a graduate of a Peterborough City or County Secondary School on the basis of high scholastic merit.

#### **The Peterborough Examiner Scholarship**

This scholarship, the gift of the Peterborough Examiner Co. Ltd., is available to an outstanding student entering first or a higher year and living in residence.

**The Helen and Barney Sandwell Scholarship**

This scholarship, the gift of the distinguished Canadian publisher, B.D. Sandwell, a long-time member of the Trent Board, and its Chair from 1971 to 1975, and of his wife, Helen, is awarded annually to an outstanding student majoring in English Literature entering the third year of a degree program in English.

**The Katherine E. Scott Scholarship**

This scholarship, the gift of the late Dr. C.M. Scott of Peterborough, is named in honour of his late wife.

**The William Bligh Shaw Scholarship**

This scholarship, the gift of Muriel Beatrice Shaw, is awarded annually to an outstanding student entering the first year of the Administrative Studies Program.

**The H. Clare Sootheran Scholarship**

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

**The Ian Stonehewer Memorial Scholarship**

Named in honour of Ian Stonehewer B.A. Honours 1975, this scholarship, the gift of Mr. and Mrs. John Stonehewer, is awarded annually for excellence to a student entering fourth year of an Honours History Program. The value of the scholarship is determined annually.

**The Carolyn Sarah Thomson Scholarship**

This scholarship was established by the late Carolyn Sarah Thomson, a Trent alumna who was intensely loyal to Trent and to the people-faculty, staff and students, who make the University so unique. This scholarship of \$1,000, is awarded annually for excellence to a student entering the third year of the Canadian Studies Program.

**Town of Lindsay Scholarship**

Established by the Corporation of the Town of Lindsay, to be awarded to an entering student of high academic achievement from the Town of Lindsay, who has also demonstrated peer leadership in the school setting and involvement in community affairs.

**The James G. Wharry Scholarship**

This scholarship, a gift of the Quaker Oats Company of Canada, equal in value to full tuition for the fourth year, is awarded

annually for excellence to a student or students entering the fourth year of the Canadian Studies Program.

**The Trent University S & A Scholarship**

The employees of Trent University have donated two \$500 scholarships to be awarded annually to students from the Peterborough and Victoria County and Separate Boards of Education for academic standing and all-round achievement and character.

**The Trent University Scholarship**

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

**City of Trenton Scholarship**

This scholarship, established by the Corporation of the City of Trenton, is awarded to an entering student from the city of Trenton.

**Twenty-fifth Anniversary Scholarships**

These scholarships were established to commemorate Trent's anniversary. These renewable scholarships cover full tuition and are awarded to entering students.

**The David and Joyce Woods Graduate Scholarship**

This scholarship, to honour David M. Woods, Chair of the Board of Governors of Trent University from 1975 to 1980, and his wife, Joyce Woods, has been established by their children and friends and is to be awarded to a student in the Watershed Ecosystems Graduate Program. This is the first graduate scholarship to be established at the University.

**Externally Awarded Scholarships**

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

Trent University is grateful for the generous donations which will allow the following scholarship to be awarded in the near future:

**Binney and Smith Scholarship**

Established by Binney & Smith (Canada) Ltd. of Lindsay, manufacturers of Crayola Products to be awarded to students in the Trent-Queen's Teacher Education Program.

## Prizes

### Governor-General's Medals

The gold medal is awarded to the graduate student with the highest standing on graduation and the silver medal is awarded to the fourth-year student with the highest standing on graduation.

### President Symons Medals

The Symons 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 the Honours program who achieve high overall standing on graduation.

### Professor Gilbert Bagnani Medals

The Professor Gilbert Bagnani Medals were established in 1986 to honour the late Professor Gilbert Bagnani, one of the founding faculty members of Trent University. The medals are awarded to graduating students in the General program who achieve high overall standing.

### Ambassador of Switzerland Prizes in French and German

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

### Anthropology Society Prize

This prize is awarded to the most out-standing *Anthropology 100* student on the basis of tutorial work and overall marks.

### Sir Donald Banks Prize

This prize, the gift of Professor D.L. Smith, in memory of her father is awarded annually to a promising student in Spanish planning to participate in the Year Abroad in Granada Program.

### Bruce Barrett Memorial Prizes

In memory of Bruce Barrett, a former Trent Philosophy student, several prizes are awarded annually to outstanding students in first-year courses in Philosophy. Approximate value \$100.

### Bigwin Award

This prize is awarded on behalf of Elizabeth Bigwin to an aboriginal student in *Native Studies 260* who not only demonstrates academic excellence, but also contributes to the well-being of the community at Trent or the community at large.

### Department of Biology Prizes

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

### Gordon Campbell Memorial Award

In memory of Gordon Campbell, a former Trent Geography student, one award of \$500 is given annually to a third- or fourth-year undergraduate student in a single- or joint-major program in Geography with a demonstrated and continuing interest in the Canadian North.

### Canadian Association of Geographers' Undergraduate Award

This award, presented by the Canadian Association of Geographers, is offered each year to the Honours Geography student at Trent who is judged to have the best academic record in fourth year.

### Donald Chase Memorial Prize

This prize, in memory of Donald Chase, a Trent student in 1989, is awarded annually for the best essay in Canadian history written by a first-year under-graduate at Trent.

### Comparative Development Prizes

The prizes are awarded annually to students with the highest overall standing in the 200, 300 and 400 level central core courses in Comparative Development Studies.

### 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.

### CRC Press Freshman Chemistry Achievement Award

This prize is a gift of a copy of the CRC Handbook of Chemistry and Physics from the CRC Press Inc., and is awarded to a student at the end of first year on the basis of outstanding academic achievement in Chemistry.

### James Creery Memorial Essay Prize

This prize, in memory of James Harold Creery, a Trent student of Philosophy in 1972-74, is awarded annually for the best philosophical essay written by an under-graduate at Trent.

### The Cultural Studies Faculty Prize

The Faculty Prize was established in 1988 through contributions from the Cultural Studies faculty. It is awarded to a Cultural Studies major or joint-major for the best essay of a critical or theoretical nature

related to the subject areas of the Cultural Studies Program submitted to a juried competition held annually by the Program. Value \$300.

#### **Currie Honours Awards**

These awards are presented to two students enrolled in *Geography 401* or *402* in the Winter Session of a single-major honours program in Geography, on the basis of both academic achievement and proposed thesis research. They are valued at \$500 each, but under special circumstances three awards of \$333 each may be made.

#### **The Digital Equipment of Canada Award**

This award is presented to the student with the highest grades in Computer Studies at Trent University.

#### **The J. Emmett Duff Memorial Prize in Geography**

This prize, the gift of Professor T.H.B. Symons and Celanese Canada Inc., and John D. Stevenson Q.C. was established in memory of the late J. Emmett Duff, who, without formal training in the subject, was possessed of an intense love of traditional geography. It is awarded to a student who attains a standing of at least 70% in *Geography 411b* and who best epitomizes the spirit of cartophilia.

#### **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 fourth quarter of the Honours program in English Literature.

#### **Environmental and Resource Studies Program Prize**

This prize, a gift of the ERS program, is awarded annually to a first-year student achieving the highest academic standard in the first year ERS course.

#### **Essay Prize in Honours Economics**

This prize, the gift of the Department of Economics, is awarded each year to an honours student submitting the most outstanding essay in *Economics 490*.

#### **The Marjorie Elizabeth Foster Prize**

This prize, given in memory of Marjorie Elizabeth Foster, is awarded to the student who writes the best essay or research project in Historical Geography in a particular year in any Geography course.

#### **French Studies Staff Prizes**

These prizes are offered by members of the French Studies Section to outstanding students of first-year French Studies.

#### **French Studies Staff Prize (Nantes Program)**

This prize is awarded annually by members of the French Studies Section to the outstanding participant in the Nantes Year Abroad Program in French Studies.

#### **The Gregory R. Frith Memorial Prize in Cultural Studies**

This prize was established in honour of the late Gregory R. Frith, B.A. Honours 1977. It is awarded to a Cultural Studies major or joint-major for the best submission in any of the arts associated with the Cultural Studies Program to a juried competition held annually by the Program. Value \$300.

#### **The Honourable Leslie Frost Prize**

This prize, the gift of the late Hon. Leslie M. Frost, P.C., Prime Minister of Ontario from 1949 to 1962 and first Chancellor of Trent University, is awarded to the leading undergraduate in the first-year course in Canadian History.

#### **Gadfly Prizes**

These prizes are available for award to the leading undergraduate in Philosophy in each of the second and third years. The prizes commemorate Socrates' description of himself as one who rouses and reproves the society in which he lives just as a gadfly awakens a sluggish horse.

#### **Department of Geography Prizes**

Awarded in the first and second year to students who show excellence in the study of Geography. The second-year prize, known as the Geography alumni prize, is donated by the Trent University Geographical Society using funds contributed by Geography alumni.

#### **Guinand Prize**

This prize, in honour of the first Chair of the Department of Mathematics, is awarded to a student of high promise in the mathematics program, normally on entering the fourth quarter of the Honours program.

#### **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.



**Graham Hartley Prize**

This award, presented by the Chemical Institute of Canada (Peterborough Section) in honour of Graham Harry Hartley, PH.D., M.C.I.C., is given to first and second year students who have shown excellence in the field of General Chemistry.

**The Arnold Hyson Prize in Maritime Studies**

This prize is awarded to the student with the most outstanding research paper in *Canadian Studies-History 307*.

**The David Sutherland Irwin Prize**

Established in memory of the late Professor David Irwin, this prize is awarded on completion of *Chemistry-Biology 330* to a student with outstanding performance in biochemistry.

**The Richard B. Johnston Memorial Prize**

A prize, donated by the family of Professor Richard B. Johnston of the Department of Anthropology in his memory is awarded to a deserving student in Ontario archaeology.

**The K.E. Kidd Awards in Native Studies**

These prizes are awarded each year to graduating students who have demonstrated the highest degree of ability and achievement in the Diploma Program of the Department of Native Studies.

**F. Alan Lawson Memorial Prize**

Sponsored by the Central Ontario Chartered Accountants Association, this award is made annually to the student majoring in the Administrative Studies Program, who achieves the highest combined mark in Fundamentals of Financial Accounting and Fundamentals of Management Accounting (*Administration 201a* and *202b*).

**Robert Lightbody Prize**

This prize was established by the Alumni Association to honour the contributions to the University of alumnus Robert Lightbody, a member of Trent's first class. It is awarded annually to an upper-year Peter Robinson College student.

**The Helen E. MacNaughton Prize**

This prize is awarded to an outstanding student in Philosophy entering fourth year.

**The J. Percy MacNaughton Prize**

This prize is awarded to the student achieving the highest academic standing in Environmental and Resource Studies entering fourth year.

**The Makhija Prize in Chemistry**

This prize, the gift of R & R Laboratories, is awarded to the student with the best overall performance in 300-level courses in chemistry.

**The McColl Turner Prize in Accounting**

Presented by McColl Turner, Chartered Accountants, to the leading undergraduate student in *Administration 300*, who intends to pursue a career as a Chartered Accountant.

**David N. McIntyre Conservation Award**

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

**Jane McLarty Memorial Prize**

This prize, given in memory of Jane McLarty, a member of Lady Eaton College from 1987-1990, is awarded annually to a deserving student entering the third or fourth quarter of studies in English Literature.

**Midwives' Prize**

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

**The Norma Miller Essay Prize**

This prize, administered jointly by Catharine Parr Traill College and the Department of Classical Studies, is in memory of Norma P. Miller, an Honorary Fellow of Traill and frequent visitor to the Classics department. The prize is awarded annually for the best essay submitted by students enrolled in *Classical Literature 100*.

**Joyce Moonias Memorial Awards**

These awards, donated by Frances Six in memory of Joyce Moonias, Native Studies student 1982-83, are offered annually to the student with the highest academic standing in *Native Studies 280* and *380* (Ojibway language).

**W.L. Morton Essay Prize in History**

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

**National Council for Geographic Education Excellence of Scholarship Award**

Awarded to the outstanding graduating Geography major.

**The Native Studies Award**

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

**The Organic Chemistry Prize**

Awarded annually to a student who has demonstrated substantial improvement in the field of Organic Chemistry, normally on completion of *Chemistry 310*.

**Peace Hills Trust Prize**

The Peace Hills Trust Prize of \$500 will be awarded annually to the top aboriginal student, in terms of academic achievement, completing the second year of the Special Emphasis program in Native Management and Economic Development.

**Peterborough Historical Atlas Foundation Prize**

This prize is to be awarded to the undergraduate whose essay or project on a Canadian subject is deemed outstanding. An interdisciplinary panel will select the winner from the entries submitted by faculty in appropriate disciplines.

**Peterborough Professional Engineers Wives' Association Prize**

This prize, a gift of the association is awarded to an undergraduate who shows excellence in *two-hundred* series courses in Physics or Chemistry.

**John Pettigrew Prizes**

These prizes, established in memory of the late Professor John Pettigrew, are awarded annually for the best student essays submitted in each first-year English course.

**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.

**The Andrew Priestman Memorial Prize in Political Studies**

This book prize was established in honour of the late Andrew Priestman, Honours B.A. 1991. It is awarded annually to a graduating student in Political Studies who has maintained a solid academic achievement and made an above average contribution to student life and the

activities of the Political Studies department. Students and faculty are encouraged to make nominations.

**The R & R Laboratories Prize in Analytical Chemistry**

This prize, the gift of R & R Laboratories, is awarded to a student with outstanding performance in analytical chemistry on completion of a 300-level course in chemical analysis.

**The Denis Smith Essay Prize**

This prize, the gift of the Department of Political Studies, is awarded each year to a fourth-year student submitting an outstanding Politics essay.

**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.

**J.J. Robinette Prize**

The J.J. Robinette Prize is awarded in honour of Dr. John J. Robinette, an eminent constitutional and criminal lawyer, and Trent University's fifth Chancellor. The prize is awarded to the scholastically outstanding graduate of Trent University in any year who undertakes the study of law at another Canadian university.

**John Rymes Book Award**

The book prize is awarded by the Senior Tutor of Champlain College to a student of the College who has benefited most from a Trent University education.

**J. Paul Scott Jr. Memorial Prize**

Established in memory of J. Paul Scott Jr., to be awarded to a deserving student enrolled in *Psychology 401* or *402* (Honours Thesis).

**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 from 1854 to 1861, Postmaster General of the United Province of Canada from 1858 to 1862, and elected Member of the Legislative Council from 1861 to 1863. It is the gift of Hon. S. Bruce Smith, Chief Justice of Alberta, and of Muriel Turrier 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.

### **The Society of Chemical Industry Student Merit Award**

This award is given to the student having the highest standing in the final year of his or her course. The student must have a minimum average of 75% and have completed the course in the normal number of years.

### **The Society of Management Accountants Prize**

This prize is awarded to the student proceeding to fourth year in the Administrative Studies Program who has achieved the highest overall standing in all accounting subjects.

### **The Norman Townsend Prize in Anthropology**

An annual award, in memory of the late Professor Norman Townsend, presented by the Department of Anthropology on the basis of high academic standing to a student pursuing studies in cultural anthropology.

### **Rodney F. White Prize**

Two prizes of \$100 each are awarded annually by the Department of Sociology majors who demonstrate excellence in the study of Sociology.

### **Symons Essay Prizes in Canadian Studies**

These prizes were established through a gift from T.H.B. Symons, the founding president of Trent University, to recognize excellence in performance in courses of the Canadian Studies Program. Three prizes are awarded annually for outstanding essays in second-, third- and fourth-year courses.

### **Trent Alumni Summer Session Prizes**

These two prizes, the gift of the Trent University Alumni Association, are awarded annually for outstanding academic achievement by Julian Blackburn College students in the on-campus and the Oshawa Summer Session (including Intersession).

### **Trent Science Fair Award**

This award of the value of \$100 to be applied against first-year tuition fees, is offered to a senior secondary school student whose project is judged outstanding at the annual Peterborough Regional Science Fair.

### **Alan Wilson Prize in History**

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

### **Women's Studies Book Prize**

This prize, the gift of the Peterborough Women's Committee, will be awarded annually based on academic achievement as well as contributions to the vitality of the program.

### **College Prizes**

#### *Catharine Parr Traill College Scholar*

The title of College Scholar is conferred upon the student in his or her graduating year who has achieved academic excellence and who has also made an all-round contribution to the college.

#### *Catharine Parr Traill College Principal's Prize*

This prize is awarded to the Catharine Parr Traill College student with the best academic performance in the freshman year.

#### *Champlain College Master's Prize*

The prize is awarded to the graduating student of the college with the highest overall standing in fourth quarter, Honours.

#### *Champlain College Fellows' Prize*

The prize is awarded to the graduating student of the college with the highest overall average in the third quarter, General.

#### *Champlain College Senior Tutor's Prize*

Awarded annually to the Champlain College student who has achieved the highest average at mid-year.

#### *Christopher Greene Award*

Awarded annually in honour of Christopher Greene, former Senior Tutor of Champlain College, to a graduating student within the College who has demonstrated considerable academic improvement while studying at Trent University.

#### *Lady Eaton College Fellows' Prize*

An award given by the Fellows of Lady Eaton College to a graduating student of the college for academic excellence over his or her university career.

#### *The McCalla-Standen Award*

This award, in honour of two former principals of Lady Eaton College, is presented annually to a first-year student of the College who has most distinguished him/herself through contribution to the College, the University, or the wider community while maintaining a good academic average.

*The Marjory Seeley Prizes*

Up to three prizes are awarded annually in honour of the first Principal of Lady Eaton College to students of the College, who have distinguished themselves in sports, academics, student government, or College committees, or who have contributed to the College in such a way as to enrich its life.

*Otonabee College Prize*

This prize, to a value of \$50, is awarded to the Otonabee College student with the best academic performance over a three year period, not including an Honours year.

*Otonabee College Senior Common Room Prize*

This prize, the sum of \$100, is awarded to the Otonabee College student with the best academic performance in the freshman year.

*The John Stubbs Prize*

Created as a tribute to Trent University's fourth President, the prize is awarded by the Senior Tutor to the full-time undergraduate student member of the College with the highest average at mid-year.

*The Eileen Gallagher Otonabee College Spirit Award*

This prize, the gift of alumni, friends and family (and companion to the Scott Rennie Award) is awarded to a deserving female Otonabee College member.

*The Scott Rennie Otonabee College Spirit Award*

This prize, the gift of alumni, friends and family (and companion to the Eileen Gallagher Award) is awarded to a deserving male Otonabee College member.

*Julian Blackburn College Student Association Prizes*

These prizes are awarded to Julian Blackburn College students with overall academic excellence and involvement in University, college and/or community affairs.



# Academic Regulations

## Admissions

### Application and Admission Procedures for Full-time Studies

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

By agreement among the universities, current Ontario Secondary School candidates are notified of acceptance on an agreed upon date in mid-June. Other applicants, including those who complete their secondary school studies in January, may have their applications considered as soon as documentation is complete.

Candidates for admission from outside Ontario, or who are not currently in an Ontario Secondary School, may obtain forms from the Registrar's Office. Applicants must submit official transcripts to the University, or certified copies there-of, showing their standing in each subject.

All applicants are required to declare their intention to pursue either a four-year Honours or three-year General program as part of the admission process.

Candidates for admission may be asked to attend an interview with the Committee on Admissions and Scholarships. They will be notified of the University's decision concerning their applications as early as possible, within limits of the intra-university agreement cited above.

## Normal Admission Requirements

### Ontario Secondary School 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 Ontario Secondary School program. An applicant is required to have the Ontario Secondary School Diploma (OSSD) including a minimum of six Ontario Academic Courses (OACs); or equivalent qualifications from other provinces or countries. For admission consideration, the *minimum* overall average required on six Ontario Academic Courses is 60%. *However, because of enrolment limitations, applicants presenting the best qualifications will be given preference.*

No minimum number of years taken to achieve this standing is specified. Although the length of time taken by an applicant to complete the Ontario Secondary School Diploma will not in itself be a determining factor in the admission decision, applicants who have spent more than five years in secondary school may be required to present a higher level of achievement.

Applicants must present OACs in a minimum of four different subject areas, including an unspecified OAC in English. English OAC 1 is highly recommended, particularly for applicants to programs in the Humanities and Social Sciences.

### Specific Program Course Prerequisites

#### *Administrative Studies*

Grade 12 Advanced Math is required for admission to the Bachelor of Administrative Studies degree program. OAC Calculus or equivalent is required for the completion of the degree. OAC Finite will not satisfy this exit requirement.

#### *Biology*

OAC Biology is strongly recommended. Students may major in Biology without OAC Biology. Refer to the Biology Section of the Calendar for further information.

**Chemistry**

OAC Chemistry, OAC Calculus and OAC Physics are strongly recommended for Chemistry majors.

**Environmental and Resource Studies (B.Sc. Option)**

OAC Chemistry and OAC Biology are strongly recommended for students in the B.Sc. option. OAC Physics or OAC Geography is recommended.

**Mathematics**

OAC Calculus with a minimum 60% or successful completion of Trent's *Mathematics 100* is required to major in Mathematics. OAC Algebra is strongly recommended.

**Physics**

OAC Calculus or OAC Algebra is required to enrol in *Physics 100* at Trent. OAC Calculus and OAC Physics are strongly recommended.

*For more detailed program requirements please consult the appropriate section of the Calendar.*

**Equivalents to Ontario Secondary School Requirements**

*Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Prince Edward Island, Saskatchewan, Yukon-Grade 12. Quebec-Completion of year one of a CEGEP program or equivalent.*

*England and Wales, West Indies, East and West Africa, Hong Kong-General Certificate of Education (or equivalent) with (a) passes in at least five subjects, two of which must be Advanced Level, or (b) passes in four subjects of which three must be Advanced Level.*

Advanced Standing may be considered for appropriate Advanced Level subjects with C grades or better.

**International Baccalaureate (IB)**

Completion of the IB Diploma with at least six subjects (three of which must be at the higher level) with a minimum grade total of 28 on final grades. Advanced Standing may be considered for appropriate subjects at the higher level with grades of 5 or better.

**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.

For those countries not listed, written requests regarding admission requirements may be directed to the Registrar's Office.

*Possession of the minimum requirements does not guarantee admission.*

**Colleges of Applied Arts and Technology**

Candidates who have completed a two or three year diploma with standing acceptable to the University will be considered for admission. Those admitted with appropriate academic courses and standing in completed three-year diploma programs may receive advanced standing for up to five courses. Candidates admitted with appropriate academic courses and standing in completed two-year diploma programs may receive advanced standing for up to three courses. Applicants are asked to write to the Office of the Registrar for specific information.

*Possession of the minimum requirements does not guarantee admission.*

**Bible Colleges**

Candidates transferring from Bible Colleges accredited by the American Association of Bible Colleges may receive advanced standing for up to five credits - depending on the candidate's standing in secondary school, the nature and number of courses taken at Bible College and the grades obtained. Each case will be assessed on an individual basis; however, no credits below a grade of B- will be deemed acceptable for transfer. The candidate seeking to exercise this option must submit course outlines for the courses for which credit is sought.

*Possession of the minimum requirements does not guarantee admission.*

**Students from areas other than those listed above should submit full details and academic documents to the Office of the Registrar for evaluation.**

**English Language Proficiency**

(a) Candidates from areas where English is not the language of instruction will be required to provide evidence of a knowledge of English sufficient to enable them to profit from their university studies. All such International students must write the Test of English as a Foreign Language (TOEFL) and obtain a minimum score of 550; or alternatively, write the Michigan English Language Assessment Battery (MELAB) test and obtain an overall score of 85.

## 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. Applicants may apply as mature students if they are at least 21 years of age and have been out of a full-time educational program for a minimum of two years. Maturity, motivation, and experience will be taken into account. Any candidate who wishes to apply for admission and who does not possess the normal requirements should write to the Registrar's Office, outlining academic qualifications experience and the grounds on which admission is requested. In some instances, the Committee on Admissions and Scholarships may require the applicant to be present for an interview. Mature student applicants normally are considered for admission to the part-time program. In exceptional cases, mature candidates may be considered for admission to the full-time program.

## Part-time Studies

Candidates considering a program of part-time studies are subject to the same admission requirements as those applying to full-time studies. However, application is made directly to Trent University on the form available in the appropriate part-time studies session brochure. Refer to the Julian Blackburn College for Continuing Education section of the Calendar for information regarding the different entry points for part-time applicants.

## Transferring from Part-time to Full-time Studies

Part-time students must apply to the Registrar's Office on the Early Registration form by the required submission date if they wish to transfer to full-time status for the next Fall/Winter Session. The minimum requirements to transfer to full-time studies include a current academic status of 'Eligible to Proceed' and a cumulative average of 65% or higher over three or more courses completed for credit. Students placed on

probation will not normally be considered for admission or re-admission to the full-time program.

The Committee on Admissions and Scholarships considers all applications following review of final marks. Notifications are mailed to students with their Grade Reports in mid-June.

*Possession of the minimum requirements does not guarantee admission to full-time studies.*

## Re-admission

Students who have not completed a course at Trent during the previous 12-month period must apply for re-admission. The deadlines for submitting an application for re-admission are the same as those for admission.

The minimum requirements for re-admission to full-time studies include a current academic status of 'Eligible to Proceed' and a cumulative average of 65% or higher over three or more courses completed for credit. Applicants who do not meet these requirements will be considered for re-admission to part-time studies. Applicants whose previous academic standing is 'Probation' may be limited to one course.

Applicants who have completed fewer than three full course equivalents for credit will be considered for re-admission to full-time studies on an individual basis based upon the same criteria used for new applicants to Trent University.

Applicants for re-admission, who have previously been rusticated or debarred, are required to provide a letter with their application indicating the grounds on which re-admission is requested and to attend an interview.

Students who have graduated with a General (3-year) degree and wish to pursue an Honours degree must apply for re-admission to the University. Enrolment limits may determine the number of available spaces. Students who are re-admitted and meet the requirements for continuation in an Honours program will be eligible to enter the fourth quarter to pursue a single- or joint-major program *provided* at least one of the majors for their Honours program is either the same as the single-major or one of the joint-majors from the General degree.

Students who have graduated with a General (3-year) degree and are permitted to pursue a General or Honours degree in

a single- or joint-major which does *not* incorporate the single, or at least one of the joint-majors from the previous degree, will be deemed to be pursuing a second undergraduate degree and should refer to 'Second Degree' in the Admissions section of the Calendar.

*Possession of the minimum requirements does not guarantee admission to full-time studies.*

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## Second Degree

Students wishing to pursue a second B.A or B.Sc. must formally apply for re-admission to the second degree program. All such applications will be considered by the Committee on Admissions and Scholarships as part of the normal re-admission process. If the student elects to pursue a General degree, up to 7.5 full-courses from the first degree program may be credited to the second program. If the student elects to pursue an Honours degree, up to ten full courses from the first degree may be credited to the second program. The maximum number of credits that may be credited from the first degree program to the second program must not exceed half of the degree requirements. Students are required to declare their intentions to pursue either a General or an Honours degree upon admission to the second degree program.

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## Refusal of Admission

The University reserves the right to refuse admission to any candidate.

The University also reserves the right to refuse re-admission to candidates who have not achieved an acceptable academic standing as determined annually by the Committee on Admissions and Scholarships.

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## Application Deadlines

Applicants are encouraged to apply early. Applications and supporting documentation must be received by the appropriate deadline for admission consideration. Teacher Education applications and documents must be

received by April 15. All other full-time applications and documents must be received by June 15. Applicants should refer to the University Diary for all other application deadlines.

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## Advanced Standing

Students transferring into Trent from other post-secondary institutions may receive credit for work satisfactorily completed at the sole discretion of Trent University, in conformance with criteria established by the Senate of Trent University.

Advanced standing will be assessed by the Committee on Admissions and Scholarships prior to the student's admission to the University. Specific course equivalencies will be determined by the Committee on Admissions and Scholarships in consultation with Academic Department/Program Chairs, following the student's acceptance of an offer of admission.

Eligible students will be assessed for transfer credits for both the Honours and General degree programs. A maximum of seven and one-half full-course equivalents may be credited towards a General degree. A maximum of ten full-course equivalents may be credited towards an Honours degree. The maximum number of non-Trent courses that may be counted toward either Trent degree must not exceed half of the degree requirements.

In exceptional circumstances, students with high standing at another university, applying for entrance to the final quarter of the Honours program, may be given transfer credit for up to fifteen full courses.

The last five courses of a degree program should be completed at Trent. *Three-hundred* and *four-hundred* level course credits in major(s) obtained at another university may be accepted for credit at Trent. However, individual departments may require that all or most of the courses at these levels be taken at Trent.

Unassigned credits 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 Trent. Not more than three courses at the first-year level may be unassigned.

Advanced standing will be granted only if that course is not needed to qualify for admission. If the course in question



constitutes part of admission requirements, prerequisite standing only can be granted. Prerequisite status in a discipline means that the Trent prerequisite will be waived to enable the student to go on to more advanced work in that discipline, instead of having to repeat subject matter satisfactorily completed at another institution.

Students will not be accepted for transfer from another university during a period in which they have been suspended, debarred, or are otherwise ineligible for re-admission to their home university.

Any questions regarding advanced standing must be forwarded to the Registrar's Office in writing by the end of the third week of classes in the Fall term. Advanced standing is determined in accordance with the policies and regulations effective at the time the admission decision is made. Subsequent changes to policies and regulations will not affect previously determined advanced standing assessment; transfer credits will not be re-evaluated.

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## Registration

### 1. Academic Adviser

Each full-time student is assigned an academic adviser. Ultimate responsibility for course selection and conformance to the academic regulations of the University does rest with the student, but the adviser can assist on matters of course selection, academic regulations, the selection of majors, university deadlines, etc. Students are advised to make maximum use of their adviser in planning their university program.

### 2. New Full-time Students

New full-time students who have been offered and who have accepted admission to the University will register in person during the Introductory Seminar Week, the week prior to the beginning of classes in September. This is intended to introduce new students to university life at Trent and to complete registration.

During the Introductory Seminar Week students have an opportunity to attend lectures and information sessions in many disciplines and to consult their academic advisers before registering in their courses. In addition, College committees plan a varied program of athletic and social events for the week in order to

facilitate new students' integration into both their Colleges and the University as a whole.

It is hoped that each student will take full advantage of the opportunities provided to become familiar with the courses offered, the services and the facilities available, and the workings of the University and College system.

Refer to the "Student Guide to September Registration" for further details about the registration process for full-time new and re-admit students.

Please note that late registrants will be charged an incremental late fee, based upon the date that the registration form is received by the Registrar's Office.

### 3. Early Registration for Continuing Students

In order to facilitate academic planning, continuing students intending to study at the University in the following Fall/ Winter session, are required to early register. Early Registration ensures equal access to limited enrolment courses for all continuing students. Students are required to obtain appropriate departmental authorization for courses (where required); consult with their academic adviser; and, submit a completed Early Registration form to the Registrar's Office by the required submission date. Students are required to register in all half-courses whether offered in the Fall or Winter terms by this date. Students submitting the Early Registration form after this date will incur a minimum \$100.00 late fee.

An Early Registration Status/Change form and Fee Payment Commitment form will be mailed to students with their final grades in June. Course changes may be made by submitting the change form (with appropriate departmental authorization) to the Registrar's Office by the end of August. Changes may be made in September by completing an official Course Change form.

### Completion of Early Registration

Official registration is complete when the student has submitted an Early Registration form and forwarded the Fee Payment Commitment Form with first instalment of fees (or evidence of external financial support) to Financial Services. **Failure to complete this requirement by August 15th will result in cancellation of all early registration courses and college residence assignment.**

Students, who have had their early registration cancelled and wish to

continue studies, must contact the Registrar's Office for details on how to proceed with registration. Payment of fees or deposits, related to tuition or residence, does not obviate the need to comply with deadlines and procedures related to registration.

Refer to the "Student Guide to Early Registration" and also to the Fees section of the Calendar under "Ineligibility to Return for Financial Reasons" for further details about the registration process for continuing students.

#### **4. Registration for New and Re-admit Part-Time Students**

Registration for new and re-admit part-time students is conducted in person or by mail on application forms available from Julian Blackburn College. Please refer to the part-time summer or Fall/Winter brochures for further details, including deadlines.

## **Academic Programs and Standings**

### **Academic Programs**

#### **Note:**

It is the responsibility of each student to ensure that the courses required for the granting of a degree have been completed. Students are therefore cautioned to make absolutely certain that the number and combination of their courses meet all university and departmental requirements for the granting of a degree.

Trent University offers the following degree programs:

- Bachelor of Administrative Studies (Honours)
- Bachelor of Arts (Honours)
- Bachelor of Science (Honours)
- Bachelor of Arts (General)
- Bachelor of Science (General)

#### **1. Enrolment Status**

Any student registered in 3.5 or more courses is a full-time student. A student registered in three or fewer courses is classified as a part-time student.

#### **2. Changing from Full-time to Part-time Studies**

Full-time students who drop to a part-time load during the Fall/Winter Session may continue in the full-time program in the following Fall/Winter Session as long as their academic status is 'Eligible to Proceed' at the completion of the current session. Students who have dropped to a part-time load and whose status is probationary at the completion of the Fall/Winter Session will not normally be considered for re-admission to the full-time study program.

#### **3. Transferring from Part-time to Full-time Studies**

Part-time students must apply on the Early Registration form by the required submission date if they wish to transfer to full-time status for the next Fall/Winter Session. Students placed on probation will not normally be considered for admission or re-admission to the full-time program.

The Committee on Admissions and Scholarships considers all applications following review of final marks. Notifications are mailed to students with their grade reports in mid-June. The minimum requirements to transfer to full-time studies include a current academic status of 'Eligible to Proceed' and a cumulative average of 65% or higher over three or more courses completed for credit. Students placed on probation will not normally be considered for admission or re-admission to the full-time program.

*Possession of the minimum requirements does not guarantee admission to full-time studies.*

#### **4. Definition of Full-time/Part-time Course Load**

In defining a full course load, for the Fall/Winter Session an 'a' or 'b' half course is equivalent to a full course in either the Fall or Winter Term; a 'c' half course is equivalent to a half course in either the Fall or Winter Term.

The maximum number of full course equivalents a full-time student may take in any term without overload approval is five. The maximum number of full course equivalents a part-time student may take in any term is three. Part-time students may not exceed this load in any term in the Fall/Winter Session. Specific regulations related to overload for students taking courses in the Spring Session are specified in the Spring Session Brochure.

### 5. Overload Programs

Full-time students who have achieved a 70% average over a minimum of the last five full courses in the most recent Fall/Winter Session will be routinely approved for overload by the Senior Tutor on the Course Change form. Full-time students wishing to enrol in more than five full courses or equivalent in the Fall/Winter Session, who have not achieved the 70% average, must petition the Committee on Undergraduate Standings and Petitions through the Senior Tutor of the student's college.

### 6. Course Changes

Students wishing to change or drop courses must submit Course Change forms to the Registrar's Office. These forms must be signed by the instructor of the course which is being added and by the academic adviser. Part-time students require only the signature of the instructor of the course being added.

Once a student registers in a course a grade will be assigned in that course unless the student withdraws from the course in writing prior to the deadline for withdrawal.

#### *Deadlines*

Deadlines for course changes and withdrawals are listed in the University Diary following the Table of Contents in this Calendar.

Students are responsible for making sure that all copies of change forms are received at the Registrar's Office by the deadlines stated in the University Diary.

### 7. Withdrawal from the University

Full-time students wishing to withdraw from the University should obtain an official withdrawal form from their College Head. In all cases, the actual date of withdrawal for both financial and academic purposes will be the date the official withdrawal form is received in the Registrar's Office. Part-time students withdrawing from courses must notify the Registrar's Office in writing.

If formal notice of withdrawal is not received, the student will be responsible for financial obligations. Failing grades may also appear on the students official academic record.

### 8. Retroactive Withdrawal

Retroactive withdrawal may be granted by petition to the Committee on Undergraduate Standings and Petitions (CUSP) when it can be shown that compelling and unforeseen circumstances,

which adversely affected the student's work *arose* after the deadline for dropping courses. In such cases the student must show that on the last date for dropping courses he or she would be reasonably certain of a passing mark in the course(s), had these circumstances not intervened. When retroactive withdrawal is requested after the end of an academic session, any such request will apply to all courses in which the student was registered unless it can be shown that the circumstances affected adversely only a particular course or courses. The final dates for receipt of such petitions in the Registrar's Office is March 19 for an *a* half-course, July 15 for a full course or a *b* half-course and September 30 for a Summer Session course.

### 9. Letters of Permission

Students may be permitted to take a limited number of courses at other universities on Letters of Permission. These must be obtained from the Registrar's Office *before* courses are taken. Letters of Permission are issued under the authority of the Committee on Undergraduate Standings and Petitions. It may be necessary to obtain departmental approval in advance and such approval will be required for all courses in a student's major.

Students wishing to undertake summer courses at another university on a Letter of Permission may not attempt more than two full courses (or equivalent). Students on probation may take only one course at a time on a Letter of Permission.

The maximum number of full courses which may be taken for credit on Letters of Permission is normally five. In the case of transfer students it may be fewer than five, depending on how many transfer credits they have received.

The total number of non-Trent credits may not normally exceed one-half of the total degree requirements. It should also be noted that the last five courses taken by a candidate for a degree should be completed at Trent.

For the Fall/Winter Session, requests for Letters of Permission must be received no later than August 15. For the Summer Session, requests for Letters of Permission must be received no later than two weeks after Spring Convocation. For all Letters of Permission, one week to ten days must be allowed for processing. A fee is charged for each Letter of Permission.

## 10. Study at Foreign Universities

All students wishing to take a full year of study at a foreign university must apply through the Trent International Program and have their plans of study approved by the appropriate academic departments. *A Letter of Permission must be obtained in advance.*

Normally this year of study abroad will constitute the third quarter of an Honours program. A number of departments and programs encourage students to spend a year studying abroad and formal arrangements with foreign universities exist.

Students granted permission to study abroad will be charged an administrative fee.

## Assessment of Performance

In determining an undergraduate's final standing in each course, the following criteria will be considered:

- oral and written work completed during term;
- any mid-year or other term tests or examinations;
- any final examinations.

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

### 1. Course Credit

Subject to the regulations concerning academic programs and the maximum number of D grades, students retain credits for every course and every half-course successfully completed. Two half-courses count as the equivalent of one full course. Each full course is equivalent to 3.0 academic credits, each half-course is equivalent to 1.5 academic credits. The student's transcript will show each course and half-course attempted and the grade achieved. Withdrawal from the University without academic penalty will be recorded on the student's transcript.

All Calendar references to D grades and D standing refer to all grades in the D range (50-59).

### 2. Mid-Year Review

At the beginning of the Winter Term, a mid-year progress report summarizing academic performance will be produced

for each student. The Academic Adviser and the Senior Tutor of the college will also receive copies of this report. Although the reports are useful in assessing a student's progress, they do not represent official grades and mid-year marks will not appear on any formal document.

### 3. Grades

Prior to June 1982, there were five passing grades, and one failing grade:

A = 100-80	C = 69-60
B+ = 79-76	D = 59-50
B = 75-70	F = 49-0

Precise numerical equivalents to the above letter grades appear for the 1982-83 Winter Session only.

Since June 1982, the following grading scheme has been in effect:

A+ = 100-90	C = 66-63
A = 89-85	C- = 62-60
A- = 84-80	D+ = 59-57
B+ = 79-77	D = 56-53
B = 76-73	D- = 52-50
B- = 72-70	F = 49-0
C+ = 69-67	

Numerical equivalents appear on students' transcripts.

### 4. Dean's Honours List

All students who achieve an average of A- (80%) or better over their most recent five courses will have their names placed on the Dean's Honours List. This list is published as a special issue of *Fortnightly* in the autumn of each year. Graduating students who are eligible for the Dean's Honours List will have that fact noted in the convocation program.

### 5. Supplemental Examinations

There are no supplemental examinations.

### 6. Examination Regulations

Updated regulations pertaining to tests and examinations and academic assessment have been incorporated into the 'Handbook on Assessment of Student Academic Performance'. Copies of the handbook are available from Senior Tutors at the College offices.

### 7. Faith Dates/Examination Periods

Students who wish to observe their cultural or religious holidays during the scheduled examination periods should notify the Registrar's Office in writing by Friday, September 30. The Registrar's Office will, wherever possible, incorporate these exceptions into the scheduling of examinations. Where it

is not possible to do so, the student should notify the instructor in order to make alternative arrangements

### 8. Aegrotat Standing and Incomplete Standing

Requests for special consideration because of illness or misfortune should be made as soon as circumstances arise. In all instances, the student should approach the instructor(s), and requests for extensions or special examinations may be granted. In more serious cases the Academic Adviser or Senior Tutor should be consulted. In certain circumstances, students may appeal for Retroactive Withdrawal (see the section on Withdrawal), for Aegrotat or Incomplete Standing. Students are advised that all requests for special consideration must be documented fully by medical certificates or other supporting evidence.

**Aegrotat Standing** exempts the student from writing the final examination in a course, and is granted on the grounds of physical or emotional disability. Students seeking Aegrotat Standing must consult the appropriate instructor(s). Because Aegrotat Standing depends upon the completion of all required term work throughout the year, it is not appropriate in cases of prolonged illness and is granted only when the student is unable to write the final examination.

**Incomplete Standing** permits the student to submit any remaining work in a course at a specified date following the end of the academic term. Incomplete Standing will be granted only when a student is unable to complete in the prescribed time the required work in a course for reasons beyond the individual's control, such as illness, physical or emotional disability, or loss or damage to work already done or in progress. Failure by a student to organize the workload will not be considered an adequate reason. Petitions for Incomplete Standing must be made through the academic department concerned and must be accompanied by adequate supporting documentation.

Students with Incomplete Standing from the Fall/Winter Session must have the Incomplete resolved by June 30. Students with Incomplete Standing from the Summer Session must have the Incomplete resolved by September 30.

A student wishing an extension beyond the final deadline must submit a petition to the Committee on Undergraduate Standings and Petitions outlining any

compelling or extenuating circumstances that would warrant such an extension. Appropriate supporting documentation including a letter of support from the Department Chair must accompany the petition. In cases where a petition is not submitted by the deadline or the petition is rejected, the mark assigned will be the mark indicated on the Incomplete form or zero if no mark is indicated.

## Appeals of University Regulations

### 1. Appeals of Academic Regulations

Students who believe that academic regulations have imposed undue hardship on them may appeal to the Committee on Undergraduate Standings and Petitions through the Senior Tutor of their college.

### 2. Appeal of Grades

#### *Appeals of Term Work*

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 Chair of the Department or Program.

#### *Appeals of Final Marks*

Final marks in individual courses will be reviewed by the Department concerned and submitted to the Registrar's Office, countersigned by the Chair.

Every student has a right to appeal final standing in any course, regardless of the grade. However, in considering such appeals only the final examination will normally be reassessed. In courses where there are no final examinations, an appeal will be based upon a re-assessment of the final written assignment in the course. All appeals should be made in writing to the Registrar's Office before March 17 for an *a* half-course, July 15 for a full-course, a *b* half-course, or a *c* half-course, and September 30 for a course in the Summer Session. *Students who have not received final grades because of outstanding financial obligations to the University are subject to the same deadlines.* A fee of \$25 will be charged for the handling of an appeal, refundable if the mark is raised. **Marks cannot be lowered as a result of such an appeal.**

### 3. Special Appeals

If, after exhausting all other areas of appeal, students still feel that undue hardship has been worked on them, they may appeal directly to the Special Appeals Committee. Such appeals should be made in writing to the Chair of the Special Appeals Committee. All decisions of the Special Appeals Committee are final and take effect when issued.

## Plagiarism

*Plagiarism is defined in Trent's Notes on the Preparation of Essays* as "passing off someone else's words or thoughts as your own", and *Notes* continues:

The worst kind of plagiarism, of course is submitting an essay written in whole or in part by someone else. Even a short passage copied directly constitutes plagiarism unless the student encloses the passage in quotation marks and acknowledges his source. But the student who changes only the odd word in someone else's sentences is also (perhaps unwittingly) committing plagiarism, as is one who relies heavily on secondary sources for the argument, organization, and main points of his paper. Even proper paraphrasing of someone else's writing constitutes plagiarism if the facts or ideas thus presented are not commonly known or held in the field.

Although the reference to "an essay" highlights the problem of plagiarism in the arts and social sciences, the main definition's use of "words or thoughts" makes quite clear the broader concern over plagiarism and acknowledges the unhappy fact that lab reports, problem sets, and even computer programs may be subject to plagiarism.

Since plagiarism is theft and fraud combined, and strikes at the very roots of the University by threatening the integrity of its degree, it is obvious that it must be treated as a very serious academic offense and the plagiarist be dealt with accordingly. This is not, of course, to say that every student who inadvertently omits to footnote a brief quotation from a work which s/he has carefully acknowledged in a list of works consulted should be charged with plagiarism. On the contrary, most instructors will certainly continue to judge many such situations as examples of

ignorance rather than deceit and will deal with them as they have always done with repeated explanation and with minor penalties (subject to the usual appeal procedures) such as reducing the mark for the assignment or requiring that it be resubmitted.

This policy does not pretend to deal with such cases which should continue to be dealt with at the pedagogical level-between the instructor and the student. What the Policy does do is to set out the procedures to be followed when an instructor wishes to make a formal accusation of plagiarism against a student, and the penalties which are to be imposed if that accusation proves justified.

### Procedures

- a) When an instructor wishes to make a formal accusation of plagiarism s/he shall report the matter to the Departmental Chair, at the same time informing the student of what s/he has done. (Where the instructor involved is the Departmental Chair, then the Chair's role shall be taken by a past Chair or other senior member of the department.)
- b) The Chair shall review the evidence with the instructor and if the Chair agrees that there is a case to be answered s/he shall write to the student, enclosing a copy of this *Policy*, to inform the student that s/he has been formally accused of plagiarism, outlining the evidence on which the accusation is based, and pointing out the penalty which will be imposed in the event of a judgement or guilty, as well as of the fact that, should the student have previously been punished for plagiarism, a further penalty would follow automatically.
 

The Chair shall offer to meet with and/or to receive a written submission from the student and shall request a reply within two weeks of the date of the letter, failing which the penalty will be imposed.
- c) If the student fails to respond to the Chair's letter or declines to make any defense, and the Chair determines that plagiarism has occurred, s/he shall inform the student in writing and, by copy of the letter the secretary of CUSP, that the penalty of a grade of F (0) in the assignment without the right to repeat the assignment is being imposed.

- d) Upon receipt of the copy of the Chair's letter the secretary of CUSP shall place it in the student's file in the Registrar's Office. The secretary of CUSP shall at the same time consult the student's file and if s/he finds that the student has already been penalized for plagiarism shall report the matter to the next meeting of CUSP for CUSP to impose the appropriate penalty for a second (or third or fourth) offense.
- e) If CUSP finds that because of previous plagiarism a penalty beyond that imposed by the departmental Chair is required they shall impose it, informing the student in writing of the additional penalty which is being imposed, and of the consequences which will result from any further plagiarism. If CUSP finds that no additional penalty beyond that imposed by the Departmental Chair is warranted they shall nevertheless inform the student in writing of the fact that the copy of the Chair's letter has been received and included in the student's file, and shall inform the student of the consequences which will result from any further plagiarism.
- iv) For any case of plagiarism committed after the student has already received the penalty outlined in (iii) above the normal penalty shall be a grade of F (0) in the course concerned and immediate debarment from the University.

#### *Publication of Policy*

All course syllabuses should contain the following statement:

*Plagiarism:* Plagiarism is an extremely serious academic offense and carries penalties varying from failure in an assignment to debarment from the University.

#### *Uniformity of Policy*

This present *Policy on Plagiarism* as approved by Senate at its meeting of March 22, 1988 supersedes all previous University policies on plagiarism and all policies on plagiarism previously established by any department or program of the University or by any individual instructor.

Passed by Senate March 22, 1988

#### *Appeals*

Any student accused and judged guilty of plagiarism may appeal the judgement and the penalty imposed. Appeals against the judgement of a departmental Chair shall be to CUSP and against the judgement and penalty imposed by CUSP, to the Special Appeals Committee whose decision shall be final.

#### *Penalties*

- i) For a first case of plagiarism the penalty shall be a grade of F(0) in the assignment concerned without the right to repeat the assignment.
- ii) For any case of plagiarism committed after the student has already received the penalty outlined in (i) above, the normal penalty shall be a grade of F (0) in the course concerned. (Being assigned as a *penalty* the grade of F (0) will be entered on the student's transcript whether or not the student has since withdrawn or subsequently withdraws from the course.)
- iii) For any case of plagiarism committed after the student has already received the penalty outlined in (ii) above, the normal penalty shall be a grade of F (0) in the course concerned and rustication from the University for a minimum period of one year from the end of the academic session in which the offense occurred.

## Academic Penalties

Three academic penalties may be imposed as a result of weak academic performance:

- (a) **Probation** - A warning of a poor academic situation which, if not corrected, can lead to a more serious penalty.
- (b) **Rustication** - A minimum of a one year absence from the University may be imposed with or without a period of probationary status.
- (c) **Debarment** - A minimum of three years' absence from the University, will occur as a result of a weak academic performance subsequent to the imposition of rustication. Refer to the sections below for complete details.

#### **Assessment Average**

In determining a student's academic status, an assessment average will be employed. This assessment average is defined as the mean grade earned in a minimum of three full courses (or equivalent) taken either concurrently, or consecutively. All courses completed during one such period will be counted in determining the assessment average. The Committee on Undergraduate Standings and Petitions may reconsider and alter the implications of an assessment average which is unduly affected by extremes in course grades.



In evaluating the assessment average, the following criteria will normally be employed:

- (a) students with a minimum average of 60% will be *eligible to proceed*;
- (b) students with an average of 50% to 59.9% will be placed on *probation*;
- (c) students with an average of less than 50% will be *rusticated*.

#### **Students on Probation**

Students may not proceed on probation for a second assessment period. In the case of a student on probation, an assessment average of 60% or better will clear the student's probation, and the student will be eligible to proceed. Students on probation who fail to attain an average of 60% will be rusticated.

#### **Students Previously Rusticated**

A student returning must apply for re-admission to the University. If re-admitted, the individual will be placed on probation. If such a student fails to achieve 60% upon the next assessment, the penalty will be debarment. An assessment average of 60% or more will clear the probation and the student will be eligible to proceed. However, once a rustication penalty has been imposed, any subsequent rustication at any assessment period will result in debarment.



## Academic Degree Programs

### Honours Program

Trent University encourages students to plan programs leading to single-major or joint-major Honours degrees.

The Honours degree provides a broad education with specialization in one or two disciplines (single- or joint-major). It is the basic qualification for entry to graduate programs and generally enhances employment opportunity upon graduation.

The University offers the following Honours degree programs:

- Bachelor of Administrative Studies (Honours)
- Bachelor of Arts (Honours)
- Bachelor of Science (Honours)

Students seeking the Bachelor of Administrative Studies degree are normally admitted at the beginning of their first quarter of study. Students seeking the Bachelor of Arts (Honours) or Bachelor of Science (Honours) who have completed four or more full courses must indicate their intent to enter or continue in the Honours program at each registration period. No formal application is required for the Bachelor of Arts (Honours) program or the Bachelor of Science (Honours) program. Students are encouraged to contact the appropriate department(s) for further information on planning individual Honours programs.

Students with a General degree, who wish to complete an Honours degree program, should apply for re-admission to the University indicating their intent to pursue an Honours degree on the Application for Re-Admission.

#### 1. Academic Standings Required for Entry or Continuation in the Honours Program (B.A. and B.Sc.)

All references to courses relate to full course equivalents.

- At any registration period, a minimum cumulative average of 65% on courses completed for credit is required, either to enter or continue in an Honours program. Normally, only those students who have achieved the minimum cumulative average required for the Honours program will be allowed to register in *four-hundred* series courses.

- Any student who has completed more than six courses for which credit was not granted (NCR) is ineligible to enter or continue in an Honours program.

In order to facilitate student planning, at the end of every academic session, the Registrar's Office calculates the cumulative average for all students who have completed at least four courses. The cumulative average is printed on each student's Grade Report.

#### Academic Standings Required for an Honours Degree

An Honours Degree is awarded upon the successful completion of 19, 19.5 or 20 courses as necessary to meet the requirements of the major- or joint-major subject to the qualifications below:

- no more than seven *one-hundred* level courses may be counted;
- at least three courses must lead to majors in different disciplines;
- at least four distinct disciplines must be included in the student's degree program;
- at least seven courses at the *three-hundred* and *four-hundred* levels (combined) must be included;
- a minimum grade of 60% in the specified introductory course is required in order to major in a given discipline;
- at least nine courses in the major discipline are required in a single-major program. Students in the Bachelor of Administrative Studies program should refer to Administrative Studies under the Programs of Study section of the Calendar for specific requirements;
- at least seven courses are required in each discipline of a joint-major program;
- no more than twelve courses of a nineteen course degree, or thirteen courses or a twenty course degree, may be in any one discipline;
- specific additional major requirements are listed by academic department in the Programs of Study section of this Calendar;
- no more than three D grades may be counted toward the Honours degree;
- only one course with a D standing may be counted for credit in a student's major. One D grade may be counted in each discipline of a joint-major program;
- a course may be repeated for credit only once, and then only if the grade on the preceding attempt was below 60%;

- a minimum cumulative average of 65% on all courses completed for credit is required;
- no more than six courses for which credit was not granted (NCR) are permitted.

Students who do not meet the final two requirements will be awarded a General degree, providing all requirements for the General degree have been met.

### Single-Major Honours with Minor

Students may indicate, upon applying to graduate with a single-major Honours B.A. or B.Sc. degree, that they wish to be awarded a minor in a second subject.

Those who meet the requirements for a single-major Honours B.A. or B.Sc. degree will be awarded a minor if they have also met or exceeded the requirements for a joint-major General degree in the second subject.

### Program Requirements for Joint-Majors

When a joint-major Honours program combines a major requiring 20 courses in the single major and a major requiring 19 courses in the single major, 19.5 courses are required for completion of the Honours degree.

### 2. Bachelor of Science (Honours)

In order to receive a B.Sc. degree, a student must have completed either a Grade 13/OAC course (or equivalent) in Mathematics or a university-level Mathematics course.

Students will automatically qualify for a Bachelor of Science (Honours) degree on completion of one of the following programs of study:

- a single-major Honours program in Biology, Chemistry, Environmental and Resource Studies (B.Sc. option), Mathematics, Physics, or Psychology (thesis-based option);
- a joint-major in any two of Anthropology, Biology, Chemistry, Computer Studies, Economics, Environmental and Resource Studies (B.Sc. option), Geography, Mathematics, Physics or Psychology (thesis-based option).

Students may petition to receive a B.Sc. (Honours) degree on completion of the following programs of study:

- a single-major in Anthropology, Economics, Geography or Psychology (course-based option);

- a joint-major in Biology, Chemistry, Environmental and Resource Science (B.Sc. option), Mathematics, Physics or Psychology (either thesis- or course-based option) and in another discipline not listed in this section
- in each case, the student's program must include at least fourteen courses from the disciplines listed in this section;
- the student will require the support of the department(s) concerned.

The petition will be made on the Application for Graduation and will be reviewed by the Committee on Undergraduate Standings and Petitions.

Students who complete successfully a joint-major Honours program in *one* of Anthropology, Computer Studies, Economics, or Geography and in another discipline not listed in this section will normally receive a Bachelor or Arts (Honours) degree.

### 3. Bachelor of Administrative Studies (Honours)

- Students seeking the B.A.S. degree are normally admitted to the Program at the beginning of the First Quarter. Later admission is possible upon application. Applications by students from other programs or by transfer students from other universities will be considered on their individual merits. Upon admission, these students will be assisted by the Director of the Program in developing an appropriate course of study. Admission is not permitted after the completion of more than 17 courses if taking further courses is necessary to attain the required minimum average.
- Successful completion of Grade 12 advanced Mathematics or the equivalent is required for admission.
- To remain in the Program a cumulative average of 70% in Administrative courses must be maintained. Students who are unable to maintain this average must transfer to a B.A. or B.Sc. program.
- To complete the Program successfully, students will be required to obtain twenty full-course credits or their equivalents with a 70% average in all required courses, excluding electives.
- Upon successful completion of the Third Quarter, students who have met the requirements for a single-major General degree in Economics may convocate with that degree. Students exercising this option are considered to have completed their first degree pro-

gram and must apply for readmission to the University, if they wish to pursue the B.A.S. as a second degree. Students should refer to Second Degree under the Admissions section of the calendar for further information.

- It is not possible to combine the B.A.S. degree with a major or minor from any other degree program.

## General Degree Program

### 1. Academic Standings Required for a General Degree

A General degree is awarded upon the successful completion of fifteen full courses (or equivalent) subject to the qualifications below:

- no more than seven *one-hundred* level courses may be counted for credit;
- at least three courses must lead to majors in different disciplines;
- at least four distinct disciplines must be included in the student's degree program;
- at least four courses at the *three-hundred* level must be included;
- a minimum grade of 60% in the specified introductory course is required in order to major in a given discipline;
- at least six courses in the major discipline are required in a single-major program;
- at least five courses are required in each discipline of a joint-major program;
- no more than eight courses in any one discipline may be counted for credit in a single-major program;
- no more than twelve courses in the two disciplines combined may be counted for credit in a joint-major program. No department can require a student to take more than six courses in that discipline;
- specific additional major requirements are listed by academic department in the Programs of Study section of this Calendar;
- a student must obtain a minimum of 60% in at least twelve courses;
- a student must obtain a minimum of 60% in at least seven *two-hundred* or *three-hundred* level courses;
- no more than three D grades may be counted toward the General degree;
- only one course with a D standing may be counted for credit in a student's major. One D grade may be counted in each discipline of a joint-major program;

- a course may be repeated for credit only once, and then only if the grade on the preceding attempt was below 60%.

### 2. Bachelor of Science (General)

In order to receive a B.Sc. degree, a student must have completed either a Grade 13/OAC course (or equivalent) in Mathematics, or a university-level Mathematics course.

Students will automatically qualify for a Bachelor of Science (General) degree on completion of one of the following programs of study:

- a single-major in Biology, Chemistry, Environmental and Resource Studies (B.Sc. option), Mathematics, or Physics;
- a joint-major in any two of Anthropology, Biology, Chemistry, Computer Studies, Economics, Environmental and Resource Studies (B.Sc. option), Geography, Mathematics, Physics or Psychology.

Students may petition to receive a B.Sc. (General) degree on completion of one of the following programs of study:

- a single-major in Anthropology, Economics, Environmental and Resource Studies (B.A. option), Geography or Psychology;
- in each case, the student's program must include at least eleven courses from the disciplines listed in the Bachelor of Science (General) section.

The petition will be made on the Application for Graduation form and will be reviewed by the Committee on Undergraduate Standings and Petitions.

Students who complete a joint-major in *one* of Biology, Chemistry, Computer Studies, Environmental and Resource Studies (B.Sc. option), Mathematics or Physics, and in another discipline not listed in this section will normally receive a Bachelor or Arts (General) degree.

## Special Emphasis Program

The Special Emphasis option exists in both the Honours and General programs in order to accommodate students whose academic needs cannot be met by majors in any of the existing disciplines. While the Special Emphasis Program allows considerable scope for students to define their own program, each student must provide an integrating rationale or theme

by which the choice of courses may be justified. Examples of such integrating themes have been studies in religion and medieval studies.

An application will not normally be approved which seems to be simply a major or joint-major without one or two of the courses required by the departments or programs concerned. Nor will an application be approved which is simply a collection of courses without a unifying theme.

Students wishing to pursue a Special Emphasis Program should consult the Senior Tutor of the college early in their program. The Senior Tutor will advise the student in drawing up a proposal, in obtaining the approval of the academic departments concerned, and in ensuring that the program will meet University degree requirements.

Special Emphasis programs are approved and monitored by the Committee on Undergraduate Standings and Petitions. Application to this Committee is made through the Senior Tutor. Once a program is approved, changes in course selection can be made only by petition to the Committee.

Students should submit applications for the Special Emphasis Program on completion of the First Quarter for both Honours and General programs. The student's proposal should outline the integrating rationale of the program and identify the remaining courses required for the degree in question. In exceptional cases only will the Committee consider applications for the Special Emphasis Honours program from students with ten courses completed. In such instances, the second year courses already completed must be consistent with the rationale behind the program.

Students should note that after enrolment in the program only two D grades among the ten final courses may be counted for credit for both the Honours and General degree. No more than three D grades may be counted for credit overall.

Students considering an Honours Special Emphasis Program must prepare a statement of the work which they intend to carry out upon entry to the program at the end of the First Quarter of study. At least two of the final four or five courses must be at the *four-hundred* level. Following consultation with the Senior Tutor, the statement should be submitted to the Committee on Undergraduate Standings and Petitions. The proposal

must be approved by the Chairs of all the departments and programs involved prior to its presentation to the Committee. Students must also meet the University requirements for entry and continuation in an Honours program. The Committee on Undergraduate Standings and Petitions will make the recommendation to Senate for the awarding, deferring, or withholding of the Honours degree.

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## Special Emphasis - International Studies

A Special Emphasis Program in International Studies is available as an inter-disciplinary Honours degree. It is designed to meet the needs of students whose interests cannot be accommodated within a major in a particular department or program. Students must provide a rationale for their course choices.

Students interested in International Studies should write to the Director of the Trent International Program for information and guidance in selecting their courses. Applications for entry into Special Emphasis, International Studies, are to be made by November 30th to the International Studies Advisory Committee. The Committee advises the student in drawing up the proposal, obtains departmental approval for courses where required, and ensures that the program meets University degree requirements. The Advisory Committee makes recommendations for program approval to the Committee on Undergraduate Standings and Petitions (CUSP).

Students participating in this program are required to participate in a work/study abroad program during their studies at Trent (see International Program).

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## International Program

The Trent International Program offers an exciting opportunity for students from many countries to live and study together in an international community. Students in the program, many of whom are interested in pursuing international careers, are committed to deepening their understanding of world issues, increasing their sensitivity to different cultures, and,

in the long term, to promoting international learning and understanding. Students come from all provinces across Canada and more than one hundred countries have been represented throughout the years. This year there are 500 students in the program.

Students who enrol in the program have a normal choice of course offerings at Trent and major in any field they choose. An International Studies academic program is available to students whose international interests cannot be accommodated within a major in a particular department or program (See Special Emphasis, International Studies). Once a week, TIP students gather together to explore international issues in a World Affairs Colloquium. The program also organizes many social, education and cultural events.

### International Opportunities

Students are encouraged to spend one year of their undergraduate program in a foreign country, either as an exchange student or through one of the many Trent Year Abroad Programs.

Trent has cooperative and exchange agreements with various universities and higher education institutions all over the world.

#### To make application:

1. The regular application procedure for entry into the University is to be followed.
2. Students must write a letter to the Director, International Program, explaining why they wish to take part in the program.

#### Scholarships

The University will actively apply itself to the task of financing scholarships and bursaries in the hope of providing some help to outstanding and needy students.

qualifications, students must have cleared all financial obligations to the University.

Students who anticipate completing their degree/diploma requirements at the end of Summer Session should also complete the application in order to be reviewed for eligibility. A notation as to the degree/diploma completed will appear on the transcript once eligibility has been confirmed by Senate. Students who have applied and are eligible to graduate may participate in the Convocation ceremonies in the spring of the following year and will receive their degree or diploma at that time.

Students with Incomplete Standing in certain courses or on Letters of Permission which have been duly approved should refer to the University Diary for the final date for receipt of such grades for spring and fall eligibility. Students whose final grades have not been received by the published final submission date will be required to delay their convocation and/or will not have the degree or diploma noted on their transcript.

Official copies of a student's academic transcript are transmitted by the Registrar's Office directly to other institutions only at the *student's written request*. Transcript charges are \$5.00 per copy. *Payment of the fee is required in advance of the release of the transcript.*

**Transcripts are prepared in order in which requests are received. Allow 10 working days for processing.** Grade Reports are provided free of charge to the student upon completion of each session. *However, neither transcripts nor Grade Reports will be released for students having a financial obligation to the University.*

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## Part-time Studies

(See Julian Blackburn College)

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## Convocation and Transcripts

Students who intend to graduate must complete an Application for Degree/Diploma Assessment form by the deadlines listed in the University Diary. Only those students completing the application by the published deadline will be considered for evaluation of eligibility to convocate. Students missing the deadline will not be considered and must apply again for any subsequent convocation. In addition to academic

## Programs of Study

### Explanation of Course Identification

Courses are identified by three digits. 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 courses are indicated by the suffix a, b, or c; indicating courses taught in the fall term, winter term, or throughout the year respectively. Half-courses equal one and one-half credits. Full courses equal three credits. Any two half courses equal one full course for credit purposes.

### Animal Care Course

This course deals with the ethical principles, legal aspects and practical considerations regarding animal research. There are no prerequisites and the course is not credited towards a degree. The course is mandatory for all students whose work involves handling and experimentation with live vertebrate animals. The course will be offered only once in the academic year at the beginning of the Fall Term. For details of when the course will be offered, contact the Department of Biology, Chemistry, Environmental and Resource Studies, or Psychology.

## Administrative Studies

### Director

To be named.

### Professor

I.D. Chapman, B.Sc. (LIVERPOOL), M.A. (TORONTO)

### Associate Professors

B. Ahlstrand, B.A. (TORONTO), M.Sc. (L.S.E.), D.Phil. (OXFORD); K.L. Campbell, B.A. (TRENT), M.B.A. (TORONTO); D. Newhouse, B.Sc., M.B.A. (WESTERN ONTARIO); D. Torgerson, A.B. (CALIFORNIA-BERKELEY), M.E.S. (YORK), M.A., Ph.D. (TORONTO) (on leave Winter Term 1995)

### Conjunct Associate Professor

R. Blackmore, B.Sc. (BIRMINGHAM), M.B.A. (WESTERN ONTARIO), C.A.

### Assistant Professors

J. Bishop, B.A. (NEW BRUNSWICK), M.A., M.B.A. (MCMASTER), Ph.D. (EDINBURGH);

M. Quaid, B.A. (MCGILL), M.Sc. (L.S.E.), D.Phil. (OXFORD)

### Adjunct Faculty

R. Beninger, B.A. (TRENT), L.L.B. (OTTAWA), L.L.M. (LONDON); R. Chernecki, B.A. (WATERLOO), M.A. (TORONTO); J. Panabaker, M.A. (CARLETON); R. Taylor, B.A. (TRENT), L.L.B. (QUEEN'S)

### Associated Faculty

*Computer Studies*, J.W. Jury; *Economics*, M. Arvin, D. Curtis, H. Kitchen, J. Muldoon, K.S. Murthy; *History*, B. Hodgins, D. McCalla, *Mathematics*, E.A. Maxwell; *Political Studies*, M. Gunther, V. Lyon, R. Paehlike, J. Wearing; *Sociology*, P. Bandyopadhyay, C. Huxley.

Administrative Studies is a four-year (twenty course credits) Honours Program leading to the degree of Bachelor of Administrative Studies (B.A.S.). This Program is intended for students with an interest in careers in management in the public and private sectors.

The objective of the Administrative Studies Program is to provide students with a generalist rather than a specialist program of study. The administration courses are designed to expose the student to the various administrative techniques (accounting, marketing, management science, computer science, commercial law, etc.) while the policy courses are concerned with strategic decisions affecting the long-range directions of organizations in business and government.

Students entering the B.A.S. degree program in first year must have completed Grade 12 mathematics at the 5th level or its equivalent with a good standing.

To remain in the B.A.S. degree program, a cumulative average of B— (70%) in courses completed (excluding electives) must be maintained. Students who are unable to maintain a B— average may transfer to a B.A. or B.Sc. program in another discipline, provided they can make up any degree requirements for a major. Students who have completed fifteen courses but are academically ineligible to enter the fourth year of the B.A.S. degree program may consult with the Director of the Program concerning special consideration for the completion of an alternate degree outside the Administrative Studies Program.

Students entering the fourth year must indicate their course choices to the Director before early registration.

## Required Courses

### Year I

*Administration 105, Economics 101a or b and Economics 102a or b, one of Politics 100, Sociology 100 or 110;* and two electives (at least one first year course from History, Philosophy, English, or Modern Languages is recommended). *Mathematics 100* is required of students who have not passed Grade 13 calculus or an equivalent course in calculus (not finite mathematics). Upper year core courses are not open to first year students.

### Year II

*Administration 201a and 202b, Administration 250, Administration-Economics 225a and 220b,* one course in either Policy or Administration (or either *Economics 200 or Economics 201*), and one elective.

### Year III

*Administration 350,* a further course in Administration, one Policy course, one additional course in either Policy or Administration, and one elective.

### Year IV

*Administration 400, Administration 410,* one Policy course, one additional course in either Administration or Policy, and one elective. (Students registered in the B.A.S. degree program before the 1992-93 academic year may substitute one Administration course for *Administration 410*.)

## Administration Courses

### *Administration 105*

Introduction to managerial communications. The course examines the theory and practice of communications in an organizational context with particular emphasis on written communications. The lectures and workshops stress a strategic approach to management communications in order to enhance the effectiveness of professional writing and the understanding of organization situations. Enrolment normally limited to Administrative Studies students.

*I. Chapman and staff*

### *Administration-Native Studies 190*

Introduction to management and management decision-making in contemporary aboriginal organizations. The course examines the basic tasks, responsibilities, and practices of management in aboriginal and non-aboriginal organizations and by aboriginal managers.

*Staff*

### *Economics 101a or b*

Introductory microeconomic analysis. (See Economics)

### *Economics 102a or b*

Introductory macroeconomic analysis. (See Economics)

### *Administration 201a*

Fundamentals of financial accounting. An introduction to the basic concepts and principles underlying financial accounting and to the practices followed in the preparation of financial records and statements required for public reporting. Problems related to different types of business and to the various legal forms of business are considered. Prerequisite: Second-year standing in the B.A.S. degree program, or the N.M.E.D. program or permission of the Program.

*Staff*

### *Administration 202b*

Fundamentals of management accounting. An introduction to the basic concepts and procedures used in the collection and manipulation of accounting data for on-going management decision-making. Topics include: manufacturing accounting; cost accounting and variance analysis; cost allocation; cost-volume-profit analysis; introduction to budgeting. Prerequisite: *Administration 201a*.

Excludes previous *Administration 305b*.

*Staff*

### *Administration-Native Studies 206b*

Management control and guidance systems in contemporary aboriginal organizations. This course provides a thorough discussion and examination of the principles, concepts and practices of management control and their use in contemporary aboriginal organizations. The main focus is upon building a framework to approach the design, implementation, operation and change of a control and guidance system.

*D. Newhouse*

### *Administration-Economics 220b*

Introduction to Econometrics. (See Economics)

### *Administration 222a*

Organizational behaviour. A conceptual and methodological analysis of how individuals react to their employment environment. Topics include motivation, job satisfaction, leadership, group dynamics and decision-making, personnel selection and training, conditions of work, and the effects of technological change.

Co-requisite: *Administration 250*, or any

full (or equivalent) *two-hundred* series Psychology course, or permission of the instructor. (Excludes *Administration 322a*).

*M. Quaid*

*Administration 223b*

Human resource management. A survey of the concepts and practices in the major functions of human resource management. Topics include human resource forecasting, human rights, training and development, performance appraisal and compensation. Prerequisite: *Administration 222a* or equivalent or permission of the instructor.

*M. Quaid*

*Administration-Economics 225a*

Introduction to mathematical economics. (See Economics)

*Administration 250*

Organization theory. An introduction to organizational theory and an examination of specific organizations. Structure, process, environment, and other aspects of organizations are approached through multiple-frame analysis. Prerequisite: One of *Politics 100*, *Sociology 100* or *Sociology 110*.

*B. Ahlstrand, D. Torgerson*

*Administration-Native Studies 272*

Organizational behaviour in contemporary aboriginal organizations. This course provides a basic grounding in the general issues involved in managing people in organizations and in the particular issues confronting managers of contemporary aboriginal organizations. The major concern of the course is to develop an understanding of the basic dynamics of human behaviour in organizations and their implications for managerial decisions and actions.

*Staff*

*Computer Studies 202a*

Intermediate computer science. (See Computer Studies)

*Computer Studies 203b*

Data structures and processing. (See Computer Studies)

*Computer Studies 220b*

Information systems in organizations. (See Computer Studies)

*Computer Studies-Mathematics 241a*

Computational algebra with applications. Prerequisite: *Mathematics 110* or *130*. (See Mathematics)

*Administration 300*

Financial accounting. (Not offered 1994-95)

*Administration 310a*

Introduction to marketing (Part I). This course examines the nature of the market-place, and introduces basic strategy for adapting a marketing mix to the external environment. Students are required to review a current advertising campaign. The development of ideas through interactive learning is encouraged. Prerequisite: *Administration 201a-202b*.

*J. Bishop*

*Administration 315b*

Introduction to marketing (Part II): Advertising and promotion. This course, a continuation of *Administration 310a*, focuses on sales, advertising and the media, and sales promotions. Students are invited to create independent projects, usually involving work with a corporation or organization. Prerequisite: *Administration 310a*.

*J. Bishop*

*Administration 320a*

Financial management. A systematic survey of the fundamental concepts of financial management including: the tax environment, financial planning and control, working capital management, capital budgeting, the market for long term securities, debt and preferred shares, valuation and rates of return, and the cost of capital. Attention will be given to applying these concepts to particular cases. Prerequisites: *Economics 101a* or *b* and *Economics 102a* or *b*, and *Administration 201a* (or other accounting deemed sufficient by the instructor).

*J. Bishop*

*Administration 324a*

An introduction to law. (Not offered 1994-95, but offered in Summer 1994.)

*Staff*

*Administration 325a*

The legal environment of management. The course will direct itself to the legal limits within which management operates and the laws with which business decision-making must comply. The use of law for protection of the competitive market place, of the consumer and of the businessman will be reviewed and explained through the primary sources of law: cases and statutes. Prerequisite: *Administration 250*, or permission of the instructor. Enrolment limited. (Also offered in Summer 1994.)

*Staff*



*Administration-Sociology 333a*

Social organization and bureaucracy. An overview of different approaches to the analysis of complex organizations including classical theories of bureaucracy, the managerial tradition and perspectives drawn from contemporary sociology. Selected case studies are examined with special emphasis on the analysis of the modern business enterprise. Prerequisite: *Sociology 100* or *110*, or *Administration 250* or permission of the instructor. Lecture, seminar weekly. Staff

*Administration 340*

Entrepreneurship and small business. Students learn about the challenges facing a small business within the Canadian social, economic, political and regulatory environments. Prerequisites: Third- or fourth-year standing in the B.A.S. degree program and *Administration 310a/315b* (the latter may be taken concurrently). Staff

*Administration 341b*

Communications in organizations. Theory of organizational communications. Strategies and skills applicable to communications in an organizational setting—interviews, group meetings and presentations. One lecture and one two-hour practice lab weekly. Prerequisite: *Administration 105* and *Administration 222a* or *322a* or permission of the instructor. I. Chapman

*Administration 350*

Managerial planning and control. The processes and problems of planning and control with particular attention to budgeting. The course will focus critically on traditional and innovative budget procedures for organizations in both the private and the public sectors. Emphasis will be placed on the vital role of the budget process in management. Prerequisite: *Administration 201a/202b* and *Administration 250*. K. Campbell

*Economics 350a*

Economics of trade unions. (See Economics)

*Economics 351b*

Labour economics. (See Economics)

*Administration 400*

Strategic management. The course focuses on the definition and analysis of strategic problems faced by business and government organizations in adapting

to changes in their internal and external environments. Students will be expected to draw broadly on knowledge and skills developed over their first three years. Restricted to students with fourth-year standing in the B.A. S. degree program. B. Ahlstrand

*Administration 410*

Management thought. Not offered 1994-95.

*Administration 420*

Professional ethics. A seminar on the ethical issues of professional life, especially as encountered in business and government. The primary purpose of the course is to promote an understanding of professional ethics which enlarges the capacity for careful reflection on moral problems. The course will proceed through an identification of concrete moral problems to an application of ethical concepts and a clarification of issues. Students are expected to play a large part in designing their projects. Prerequisite: Fourth-year standing in the B.A.S. degree program; or third-year standing with permission of the instructor. J. Bishop

*Administration 430*

Workplace diversity. Canada is experiencing dramatic changes in the composition of its workforce. The new workforce will include more women, visible minorities, aboriginals, disabled and the aged. This course addresses some of the workplace problems and opportunities that arise from the demographic diversity of the 1990s and beyond. The course will also examine the human resource implications of conducting business on an international basis. As business become more global, Canadians will increasingly work with others from different countries, cultures, ethnic groups and races. Prerequisite: *Administration 223b* or equivalent or permission of the instructor. M. Quaid

*Administration 490*

Reading course. By individual arrangement, normally before early registration. Prerequisite: Permission of the instructor.

*Administration 499*

Research project. Research based on a project developed with a local organization. Details must normally be arranged with the Director by May 1 of the preceding academic year.

**Policy Courses**

(See Calendar description in the respective departments or programs). Students are advised to check prerequisites and the pertinent department regulations for courses in planning their academic programs.

*Canadian Studies-Environmental and Resource Studies 310*: Public policy and the Canadian environment  
*Canadian Studies 370*: Science in Canadian society (Not offered this year.)  
*Canadian Studies-Cultural Studies 413*: Cultural policy in Canada (Not offered this year)  
*Comparative Development 400*: Modernity and development  
*Economics-Canadian Studies 260a*: Canadian economic growth and development I: up to 1929 (Not offered this year)  
*Economics-Canadian Studies 261a*: Canadian economic growth and development II: after 1929  
*Economics 301b*: Monetary theory  
*Economics 302b*: Monetary institutions and policy (Not offered this year)  
*Economics 311a*: International trade  
*Economics 312b*: International finance  
*Economics 316a*: Government expenditure analysis  
*Economics 317b*: Canadian tax policy (Not offered this year)  
*Economics-Comparative Development 331a*: Development as a self-contained evolutionary process  
*Economics-Comparative Development 332b*: Development and underdevelopment in a global context  
*Economics 341a*: Industrial organization  
*Economics 351a*: Labour economics  
*Economics 361a*: An economic history of the Industrial Revolution (Not offered this year)  
*Economics 362b*: International economic history, 1850 to present  
*Economics-Environmental and Resource Studies 381b*: Environmental economics  
*Economics-Canadian Studies 384b*: Health economics  
*Environmental and Resource Studies 306*: Environmental impact assessment  
*Environmental and Resource Studies 307*: Risk assessment  
*Geography-Canadian Studies 371b*: Urban planning (Not offered this year)  
*Geography 380b*: Regional economic development (Not offered this year)  
*History-Canadian Studies 235*: History of Canada since 1914

*History-Canadian Studies-Politics 301*: Canadian federalism  
*History-Canadian Studies 308*: Business history  
*Native Studies 200*: Politics and native communities  
*Native Studies 260*: Social service and native people  
*Native Studies 290*: Native economic development  
*Native Studies-Comparative Development 305*: Native community development  
*Native Studies 320*: Urbanization and the native people  
*Native Studies 330*: Education and the native people  
*Native Studies 340*: Native law  
*Native Studies 381a*: Theory of community-based research and planning  
*Native Studies 385b*: Program planning and evaluation  
*Philosophy 232*: Philosophy of law, justice and the state  
*Politics-Canadian Studies 201*: Canadian politics  
*Politics 220*: International politics  
*Politics 260*: An introduction to political analysis and public policy  
*Politics-Canadian Studies 309*: Ontario politics  
*Politics 320*: Conflict and co-operation in international relations  
*Politics 321*: International organization (Not offered this year)  
*Politics-Canadian Studies 362*: Public policy and administration in Canada  
*Politics 420*: Contemporary problems in international politics  
*Politics-Comparative Development 450*: Problems of underdevelopment  
*Politics-ERS 460*: Public policy in comparative perspective  
*Sociology 230*: Self and society  
*Sociology-Comparative Development 280*: Society and economy (Not offered this year)  
*Sociology 334a*: Industrial sociology  
*Sociology-Canadian Studies 340*: Sociology of education  
*Sociology-Women's Studies 342*: Sociology of gender  
*Sociology 366*: Analysis of social policy (Not offered this year)  
*Sociology 480*: Comparative social analysis

## Anthropology

### Professor and Chair of the Department

J. M. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA)

### Professors Emeriti

K.E. Kidd, M.A. (TORONTO), LL.D. (TRENT), F.R.A.I.; K.A. Tracey, B.Sc. (HOWARD), D.Sc. (KIEL)

### Professors

R.S. Hagman, PH.D. (COLUMBIA); P.F. Healy, B.A. (CALIFORNIA-BERKELEY), M.A., PH.D. (HARVARD) (on leave); H.W. Helmuth, D.Sc., DR. HABIL. (KIEL); L.J. Hubbell, M.A., PH.D. (CALIFORNIA-BERKELEY) (on leave Fall term); J.K. So, M.S., PH.D. (SUNY, BUFFALO); E.M. Todd, B.A. (TORONTO), PH.D. (NORTH CAROLINA); J.R. Topic, M.A., PH.D. (HARVARD); T.L. Topic, M.A., PH.D. (HARVARD)

### Associate Professors

S.M. Jamieson, M.A. (MANITOBA), PH.D. (WASHINGTON STATE); R.D. Powell, LIC. EN HISTORIA (CORDOBA), PH.D. (MCGILL); O. Roesch, M.A. (MCMASTER); PH.D. (TORONTO); M.J. Tamplin, B.A. (TORONTO), M.A. (LONDON), PH.D. (ARIZONA) (on leave Fall Term); R.K. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA) (Winter Term 1995 only)

### Assistant Professor

J. Solway, M.A., PH.D. (TORONTO)

### Conjunct Professors

P.L. Storck, PH.D. (WISCONSIN)  
D. Pendergast, PH.D. (CALIFORNIA-BERKELEY)

### Required Courses

The single-major Honours program consists of twenty courses. Minimum nine courses in Anthropology, including:

*Anthropology* 100  
200  
212  
230  
240  
420

and two other *four-hundred* series courses in Anthropology.

Joint-major Honours program. Minimum seven courses in Anthropology, including:

*Anthropology* 100  
200 and  
one of 212, 230, 240

and two other *four-hundred* series courses in Anthropology.

Single-major General program. Minimum six courses in Anthropology, including:

*Anthropology* 100  
200 and  
two of 212, 230, 240

Joint-major General program. Minimum five courses in Anthropology including

*Anthropology* 100 and  
two of 200, 212, 230, 240

### Note:

In order to be eligible to graduate with a B.Sc. degree, a student must have completed a Grade 13/Ontario Academic course in Mathematics, or equivalent, or a university level Mathematics course.

### Special Provisos

- Anthropology Honours students who joint-major in a Department or program which offers a 19-course Honours degree must include at least 19-1/2 courses in their overall program.
- Students who have taken all four of *Anthropology* 200, 212, 230, and 240 may recognize one of these courses as equivalent to a *three-hundred* series course.
- Students undertaking a single-or joint-major Honours program should consult the Chair of the Anthropology Department for advice in preparing their programs of study.
- Students with a joint-major in Anthropology and Comparative Development Studies should consult the requirements listed under Comparative Development Studies. Such students may substitute *Anthropology* 221 for *Anthropology* 212, 230, or 240 in their required Anthropology program.
- Students are limited to no more than one full reading course in Anthropology or its equivalent, for the General degree and one additional full reading course in Anthropology, or its equivalent, for the Honours degree. Only students who have an overall B (73%) average will be allowed to enrol in reading courses.
- 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. Understanding and explaining humanity in all its variety. An interdisciplinary, comparative study of the people and their cultures throughout the world (cultural anthropology), of human evolution, adaptation, and genetics

(physical anthropology), the recovery and development of prehistoric societies (archaeology), and language as an aspect of culture (linguistics). Two-hour lecture weekly, optional film hour weekly, and fortnightly tutorial.

*J. So, R. Hagman, L. Hubbell, R. Vastokas*

*Anthropology 200*

Cultural anthropology. Cross-cultural analysis of religion, gender, economics, change, political and social organization, etc. Ethnography, theory, and method.

Prerequisite: *Anthropology 100* or *Sociology 100* or permission of the instructor. Two-hour lecture weekly, seminar fortnightly.

*O. Roesch and L. Hubbell*

*Anthropology-Native Studies 201*

Native societies of Canada. Traditional societies in several areas of Canada, as well as factors leading to socio-cultural change. Lecture, seminar weekly.

Prerequisite: *Anthropology 100, Native Studies 100* or permission of instructor. *Staff*

*Anthropology 211*

Field methods and techniques in archaeology. An introduction to the recovery, analysis, and interpretation of archaeological evidence in a field situation.

Occasional summers only; confirm with the Department Office. Prerequisite: *Anthropology 100* or permission of the instructor. Enrolment may be limited. *Staff*

*Anthropology 212*

Introduction to archaeology. An introduction to the methods used by archaeologists to recover and analyze their data, and a survey of selected culture histories in the Old and New World. No prerequisite. Two-hour lecture weekly, tutorial fortnightly.

*Staff*

*Anthropology-Comparative Development 221*

Development anthropology. An application of the resources of anthropology to the study of modern societies in transition. Analysis of programs of development and research at local, regional and national levels in Africa, the Caribbean, Latin America and Canada. No prerequisite. Lecture, seminar weekly.

*Staff*

*Anthropology-Classical Civilization-Geography 223a*

The ancient city (see Classical Studies)

*Anthropology-Classical Civilization 224b*  
Classical archaeology (see Classical Studies)

*Anthropology 230*

Introduction to language. How to develop an understanding of any language through linguistic analysis of sounds, words, and sentences; how languages change and language classification; acquisition of language, language in society, and writing; human vs. non-human forms of communication. No prerequisite. Two-hour lecture weekly, seminar fortnightly.

*E. Todd and R. Hagman*

*Anthropology 240*

Introduction to physical anthropology.

The study of human evolution, the physical characteristics of the living varieties of mankind, and the genetics and growth of the human species. Prerequisite: *Anthropology 100* or permission of the instructor. Two-hour lecture weekly, two-hour seminar in the laboratory fortnightly.

*H. Helmuth*

*Anthropology-Canadian Studies-Native Studies 253*

Art of the Americas. A survey of the visual arts and architecture of the First Nations of North, Central, and South America from prehistory to the present. No prerequisite. Three-hour lecture weekly.

*Staff*

*Anthropology-Comparative Development 301*

African Culture and Society. An introduction to contemporary African culture and society, focusing on culture history and indigenous institutions, the impact of colonial rule, and present-day problems of development. Prerequisite: *Anthropology 100, Comparative Development 100* or permission of instructor. Two-hour seminar weekly.

*J. Solway*

*Anthropology 302*

Cultures of the Pacific. An introduction to the peoples, cultures, and history of Polynesia, Melanesia, Micronesia, and Indonesia. Focus on traditional economic systems, social organization, and development in emerging nations. Prerequisite: *Anthropology 200* or permission of instructor. Lecture, seminar weekly.

*E. Todd*

*Anthropology 303*

Caribbean societies. Prerequisite: *Anthropology 100*. (Not offered this year.)

*Anthropology-Comparative Development 304*

Latin America. Prerequisite: *Anthropology 100* or permission of instructor. (Not offered this year.)  
*Anthropology 305*  
Kinship and social organization. Prerequisite: *Anthropology 200* or permission of the instructor. (Not offered this year.)

*Anthropology 309*

Ethnographic method in cultural anthropology. Prerequisite: *Anthropology 200*. (Not offered this year.)

*Anthropology 311*

Prehistory of North America. This course will survey the prehistoric cultures of North America north of Mexico from first human entry into the New World to European contact. Prerequisite: *Anthropology 212* or permission of instructor. Lecture weekly, seminar fortnightly.

*S. Jamieson and staff*

*Anthropology 312*

Old World prehistory. Prerequisite: *Anthropology 212*. (Not offered this year.)

*Anthropology 313 b*

Agriculture and urbanism. Agricultural origins around the world and factors that affect agricultural intensification in complex society. Prerequisite: *Anthropology 212* or permission of the instructor. Two-hour lecture/seminar weekly.

*M. Tamplin*

*Anthropology 314*

Archaeology, ethnohistory, and ethnography of South America. Prerequisite: *Anthropology 100* or permission of instructor. (Offered in alternate years but not this year.)

*Anthropology 315b*

Underwater archaeology. Prerequisite: *Anthropology 100*. (Not offered this year.)

*Anthropology 320*

Anthropology of religion. Cross-cultural study of religion, including early Christianity. Myth, symbolism, ritual, etc. Prerequisite: *Anthropology 100* or permission of instructor. Lecture, Seminar weekly.

*Staff*

*Anthropology 330a*

Language history. Examination of the various ways in which languages may change; techniques for the reconstruction of extinct languages; inquiry into economic, social, and ideological causes of language change. Prerequisite: *Anthropology 230* or permission of the instructor.

*R. Hagman*

*Anthropology 331b*

Languages of the world. Prerequisite: *Anthropology 230* or permission of the instructor. (Not offered this year.)

*Anthropology 332b*

Language in Society. Significance of variations in language use by class, gender, ethnicity, age. Bilingualism, methodology, applied sociolinguistics. Three-hour seminar weekly. Prerequisite: *Anthropology 200* or *230*.

*L. Hubbell*

*Anthropology 333b*

Language and culture. Prerequisite: *Anthropology 200* or *230*. (Not offered this year.)

*Anthropology 334*

Linguistic analysis. Morphological and syntactic analysis of several samples of non-Indo-European languages. A major research project involves the study of a single language (in the second term) with the goal of producing a grammar based on selected texts. There is a special focus on aspects of syntactic theory. Prerequisite: *Anthropology 230*. Lecture, seminar weekly.

*E. Todd*

*Anthropology-Biology 340*

Primatology. General biology, systematics, anatomy, paleontology 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 one-hour seminar in the laboratory weekly. (Offered this year and in alternate years.)

*J. So*

*Anthropology-Biology 341*

Comparative osteology and human evolution. The skull and postcranial skeleton of early and modern Man and non-human primates; methods of description and measurement;

determination of age and sex. Prerequisite: *Anthropology 240* or permission of instructor. Two-hour lecture weekly, two-hour seminar in the lab weekly. (Offered this year and in alternate years.)  
*H. Helmuth*

*Anthropology 342*  
Issues in social biology. Prerequisite: *Anthropology 100* permission of instructor. (Not offered this year.)

*Anthropology-Biology 343*  
Human genetics, growth and adaptability. Prerequisite: *Anthropology 240* or permission of instructors. (Offered in alternate years but not this year.)

*Anthropology-History 345*  
Slavery in the Americas. (See History)

*Anthropology 348*  
Medical anthropology. An intensive and comparative survey of the fundamental aspects of the anthropology of health; research methodology, biological, ecological and sociocultural factors influencing disease patterns; the cross-cultural differences in medical systems. Prerequisite: *Anthropology 240*. One-hour lecture and two-hour seminar weekly.

*J. So*

*Anthropology-Canadian Studies 351*  
Art, architecture and society. A cross-cultural, thematic approach to the history of visual art and architecture from the point of view of symbolic, semiotic, and dialogic anthropology. Themes: visual art as a non-verbal system of communication, the artist's role in society, cross-cultural aesthetics, cultural conditions of creativity, politics and art, values, universals. Seminar sections (a) 19th and 20th century European art and architecture or (b) 19th and 20th century Canadian art and architecture. No prerequisite. Three-hour lecture/seminar weekly.

*J. Vastokas*

*Anthropology 360alb*  
Ceramics in Archaeology. Prerequisite: *Anthropology 212* or permission of instructor. (Not offered this year.)

*Anthropology 361b*  
Lithic Technology. Prerequisite: *Anthropology 212*. (Not offered this year.)

*Anthropology 362a*  
Zooarchaeological Analysis. Prerequisite: *Anthropology 212, 240* or Permission of Instructor. (Not offered this year.)

*Anthropology 363 b*  
Computer Applications in Anthropology. This course explores the use of computers in the four fields of anthropological research, accessing or creating and using anthropological databases, social simulation studies and the anthropology of computer-human interaction. Prerequisite: Either one of *AN200, 212, 230, 240* and *Computer Studies 100* (or proposed *CS101a*) OR *CS210* and Permission of Instructor. Two one-hour lectures, 1-hour lab weekly.  
*M. Tamplin*

*Anthropology 365a*  
Archaeological Settlement and Spatial Studies. Introduction to the analysis of the spatial dimension of archaeological data. Spatial relationships reflect the social, political, economic, ecological, and ideological contexts of human behaviour. The course examines the distributions of artifacts and sites, the organization of buildings and settlements, and the interactions between cultures. Both techniques of analysis and interpretive concepts will be presented. Prerequisite: *Anthropology 100* or permission of instructor. Three-hour lecture/lab/seminar weekly.  
*J. Topic*

*Anthropology-Women's Studies 369a*  
Gender in Prehistory. Prerequisite: *Anthropology 212*. (Not offered this year.)

*Anthropology 371a*  
The Maya. Prerequisite: *Anthropology 212* or permission of the instructor. (Not offered this year.)

*Anthropology 390, 391a, 392b*  
Reading course. A course designed to pursue special interests, largely through independent study. Signature of department required. Details to be arranged in consultation with faculty in Anthropology and proposals to be submitted to the Chair of the Department for approval and signature before early registration.

*Anthropology-Comparative Development 407*  
Politics, economics and culture. Anthropological aspects of political and economic organization in non-industrial and industrial societies. Symbolism and ritual in politics, the transformation of traditional political units in the context of contemporary state organization. Approaches to the study of non-industrial economies; the production, appropriation and distribution of resources will be explored and related to forms of political

organization. Prerequisite: *Anthropology 200* or permission of instructor. (Support course for *Comparative Development Studies*). Two-hour seminar weekly.  
D. Powell

#### *Anthropology 411*

Andean prehistory. A detailed survey of the prehispanic civilizations of Peru and Bolivia. Archaeological evidence for the economy, ideology, and social organization of Inca, Tiwanaku, Moche, and other Andean civilizations will be reviewed. Prerequisite: *Anthropology 212* or permission of instructor. Two-hour lecture weekly, seminar fortnightly. Offered this year and in alternate years.

J. Topic and T. Topic

#### *Anthropology 412*

Prehistory of Mesoamerica. A survey of the ancient Native civilizations of Mexico and Central America from the earliest settlement to the European conquest. The course includes a study of Aztecs, Maya, Olmec and other societies of Mesoamerica. Prerequisite: *Anthropology 212* or permission of the instructor. Two-hour lecture, seminar weekly. (Offered if staffing permits.)

#### *Anthropology 413*

Prehistory of the Intermediate Area. Prerequisite: *Anthropology 212* or permission of instructor. (Not offered this year.)

#### *Anthropology-Canadian Studies 415*

Prehistory of Ontario. A detailed survey of Ontario prehistory within the context of general Northeastern archaeology. The course will focus upon both local and regional development from the first human entry to European contact.

Prerequisite: *Anthropology 212* or permission of instructor. Three-hour lecture/seminar weekly.

S. Jamieson

#### *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: evolutionism, historicism, diffusionism, structural-functionalism, neoevolutionism, symbolic and dialogic anthropology, etc. Prerequisite: *Anthropology 200*. Three-hour lecture/seminar weekly.

Staff

#### *Anthropology-Women's Studies 422*

Women: an anthropological perspective. A methodological and theoretical re-evaluation of anthropology's approach to women. Cross-cultural approaches to biology, sex roles, ideology, politics,

economics, kinship, etc. Prerequisite: *Anthropology 200*. Three-hour seminar weekly. (Offered if staffing permits.)

#### *Anthropology 423*

Culture and communication. Prerequisite: *Anthropology 200* or *230* or permission of instructor. (Not offered this year.)

#### *Anthropology 424 a*

Social Movements and Cultural Change in Africa. An analysis of the social and political transformations taking place in Africa with particular emphasis on the continuity of traditional elements, the emergent systems, ethnicity, nationalism, and class. Prerequisite: *Anthropology 200* or permission of the instructor. Two-hour seminar weekly.

O. Roesch

#### *Anthropology 425 b*

Social movements and cultural change in Eastern Europe. An analysis of the social and political transformations taking place in Eastern Europe with particular emphasis on the continuity of traditional elements, the emergent systems, ethnicity, nationalism, and class. Prerequisite: *Anthropology 200* or permission of the instructor. Two-hour seminar weekly.

R. Vastokas

#### *Anthropology 430*

Field methods in linguistics.

Prerequisite: *Anthropology 230* or permission of the department. Open to third year students. (Not offered this year.)

#### *Anthropology 432a*

Phonetics. Prerequisite: *Anthropology 230* or permission of the instructor. (Not offered this year.)

#### *Anthropology 433b*

Grammatical theory. Prerequisite: *Anthropology 230* or permission of the instructor. (Not offered this year.)

#### *Anthropology-Biology 441*

Comparative primate anatomy.

Prerequisite: *Anthropology 340* or permission of instructor. (Not offered this year.)

#### *Anthropology 442b*

Applied anthropometry in modern societies. Prerequisite: *Anthropology 240* or permission of instructor. (Offered in alternate years, but not this year.)

#### *Anthropology-Canadian Studies-Native Studies 450*

Native art of Canada. Research seminar in the visual arts of Canada's native peoples. Prerequisite: *Anthropology-Native Studies 253* and permission of the instructor. (Offered if staffing permits.)

**Anthropology-Comparative Development 475b**

Perspectives on Ethnicity. (See *Comparative Development Studies*.)

**Anthropology 490, 491a, 492b**

Reading course. A course designed to pursue special interests largely through independent study. Signature of department required. Details to be arranged in consultation with faculty in Anthropology and proposals to be submitted to the Chair of the department for approval and signature before early registration.

**Anthropology 495**

Special topic: Word and Image in Cross-cultural Perspective. An exploration of the relationship between visual and verbal systems of communication from the Upper Palaeolithic to the postmodern West. The course aims to delineate and to account for cross-cultural similarities and/or differences in especially visual narratives whether in meaning or function these be mythical, historical, legendary, biographic, liturgical, self-expressive, or propagandistic. Pre or Co-requisite: *Anthropology/Canadian Studies 351* or permission of the instructor. Three-hour seminar weekly.

*J. Vastokas*

**Anthropology 496a**

Special topics. (Not offered this year.)

**Anthropology 497b**

Special topic: Computational Linguistics. An introduction to computational linguistics, including morphological analysis and parsing. Focus on native language processing. Prerequisite: *Anthropology 230, 334* and permission of instructor. Two-hour seminar weekly.

*E. Todd*

**Biochemistry****Program Co-ordinators**

*Chair of the Department of Biology*  
J.F. Sutcliffe, B.Sc. (WATERLOO), M.Sc., Ph.D. (TORONTO)

*Chair of the Department of Chemistry*  
J.M. Parnis, B.Sc., Ph.D. (TORONTO)

**Professors**

See listing of faculty in Biology and Chemistry.

**Required Courses**

Because it rests on the disciplines of Chemistry and Biology, Biochemistry can be studied only as a single-major. No joint-major programs exist.

The General program consists of a minimum of seven Biology, Chemistry, and Chemistry-Biology courses, including *Biology 150 or 101, Chemistry 120 and 130 or Chemistry 113a, 123b and 133b or Chemistry 120, 113a and 133b or Chemistry 130, 103a and 123b, Biology 203, Chemistry/Biology 230b* and one other two-hundred level Chemistry course, *Biology 325a and 326b or 382, Chemistry-Biology 330*.

**The Honours Program**

Requirements for the General program must be met, plus; two of the *Chemistry-Biology 431a, 432b, 433b* half-courses, three other four-hundred level courses in Chemistry or Biology.

**Notes:**

For more detailed information, see separate Calendar entries for Biology and Chemistry.

**Biology****Associate Professor and Chair of the Department**

J.F. Sutcliffe, B.Sc. (WATERLOO), M.Sc., Ph.D. (TORONTO)

**Professor Emeritus**

R.L. Edwards, M.A., D.Phil. (OXON)

**Professors**

M. Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), Ph.D. (PRINCETON) (on leave Fall and Winter terms 1994-95); T.C. Hutchinson, B.Sc. (MANCHESTER), Ph.D. (SHEFFIELD) (on leave Fall term 1994-95); R. Jones, B.Sc. (WALES), M.Sc. (KANSAS), Ph.D. (WALES); D.C. Lasenby, B.Sc. (TRENT), Ph.D. (TORONTO); P.M. Powles, B.A. (MCGILL), M.Sc. (WESTERN ONTARIO), Ph.D. (MCGILL); I.M. Sandeman, B.Sc. (ST. ANDREWS), F.L.S.

**Associate Professors**

M. Havas, B.Sc., Ph.D. (TORONTO); T.R. Matthews, B.Sc. (SOUTHAMPTON); C.D. Maxwell, B.Sc. (WALES); C.D. Metcalfe, B.Sc. (MANITOBA), M.Sc. (NEW BRUNSWICK), Ph.D. (MCMASTER) (on leave Winter term 1994-95); E. Nol, B.Sc. (MICHIGAN), M.Sc. (GUELPH), Ph.D. (TORONTO)



*Adjunct Faculty*

G. Mitchell, B.Sc. (TRENT), A.R.T.

*Senior Demonstrator*

D. Buelow, B.Sc. (TRENT), M.Sc. (TORONTO)

**Note:**

The curriculum of the Biology Department has been designed to allow students to specialize in one or more major approach to biology; A) physiology and medical biology, B) plant biology, C) animal biology, and/or D) ecology and evolution. Most of the courses offered by the Department are included in one or two of four categories, representing these four approaches. A number of other cross-listed courses, offered by other departments, are also available.

*First-year Course**Biology 101**Upper-year Courses*

**Categories**  
(See note above for descriptions)

A	B	C	D
203	201	204	202
310b	321a	309a	305
325a	322a	310b	321a
326b	324b	312	327b
382	327b	313b	328a
405	328a	314a	350a
410a		336b	360
		382	403b
			404a
			439b

In some years, *a* half courses may be offered as *b* half courses and *b* half courses may be offered as *a* half courses.

The following cross-listed courses may be taken as Biology courses, but do not fulfill category requirements.

CE-BI 230b	AN-BI 340	ES-BI 304
CE-BI 330	AN-BI 341	ES-BI 412a
CE-BI 430	AN-BI 343	ES-BI 406a
CE-BI 431a	AN-BI 441	ES-BI 407b
CE-BI 432b		PS-BI 375a
CE-BI 433b		PS-BI 376b

Further specialization is possible through supervised independent study in *Biology 390, 490, 401 and 402.*

**Required Courses****Note:**

Courses appearing in two or more categories may only be counted in one of those categories.

The single-major Honours program consists of twenty courses with a minimum of ten in Biology, including:

*Biology 101* and the equivalent of at least one full course from each of the four categories above. At least eight of the ten courses must be selected from the four categories. It is recommended that fourth quarter courses be at the *three- or four-hundred* level. In addition, students also require *Chemistry 113a* and *Chemistry 123b* or *133b*.

The joint-major Honours program consists of twenty courses, with a minimum of seven in Biology, including: *Biology 101* and the equivalent of at least one full course from two of the four categories above. At least five of the seven courses must be selected from the four categories.

The single-major General program consists of fifteen courses of which at least six must be in Biology, including: *Biology 101* and the equivalent of at least one full course from three of the four categories above. At least four of the six courses must be selected from the four categories. In addition, students also require *Chemistry 113a* and *Chemistry 123b* or *133b*.

The joint-major General program consists of fifteen courses of which at least five must be in Biology, including: *Biology 101* and the equivalent of at least one full course from two of the four categories above. At least three of the five courses must be selected from the four categories.

\*Students entering the fourth quarter may substitute *Biology 150* or *Biology 100* for *Biology 101*, and may complete their degrees by either satisfying the above requirements or by satisfying the requirements that applied when they began their degrees (described in the 1991-92 Calendar).

**Note:**

In order to be eligible to graduate with a B.Sc. degree, a student must have completed a Grade 13/Ontario Academic Credit course in Mathematics, or equivalent, or a university level Mathematics course.

**Highly Recommended Additional Courses**

*Chemistry 113a, 123b, 133b*  
*Mathematics-Statistics 150*  
*Chemistry 210a, 230b*

**Recommended Additional Courses**

*Environmental and Resource Science 100*  
*Geography 101*  
*Mathematics 100 or 110*  
*Physics 100*  
*Science 350*

**Biochemistry**

For a program in biochemistry see the Chemistry section.

**Notes:**

- Students with a strong background in high school biology should consider taking a second year Biology course concurrently with *Biology 101*.
- Students without OAC Biology may major in Biology. Concurrently with *Biology 101*, students will be expected to attend extra classes which will provide some of the OAC Biology content. Additional required OAC material can be obtained from OAC textbooks.
- If fewer than ten students enrol in a course the format may be changed. If fewer than five students enrol in a course, it may be cancelled.
- All *three-hundred and four-hundred* series courses except *Biology 401/402*, and *490* can be taken in either the third or the fourth quarter of the Honours program, and some will be offered only in alternate years. Second year students wishing to register in a *three-hundred* or *four-hundred* series course may do so if they have the necessary prerequisites, otherwise they must obtain the permission of the instructor.
- Students planning to take *Biology-Environmental and Resource Science 202* should take *Mathematics-Statistics 150* in their first year.
- Where students lack the necessary prerequisites for a course, and are admitted on the instructor's permission, they should expect to carry a much heavier work load.
- Transfer students should consult with the Department Chair before selecting courses.
- Charges may be made for field trips in some courses.
- A student may take a maximum of two full reading course credits in Biology (the equivalent of one full course from *Biology 390, 391a, 392b* and *393c* plus the equivalent of one full course from *Biology 490, 491a, 492b* and *493c*), but may not take both in one academic session.
- The following courses may require the completion of the Animal Care course: *Biology 336b, 382, 401/402, 410a*. (See course descriptions.)
- Students intending to take the Graduate Record Examinations (GRE) Advanced Biology Test, required by some Canadian and American Graduate

Schools, should include the following courses in their program: *Mathematics 100, Chemistry 130, or Chemistry 113a and Chemistry 133b, Biology-Environmental and Resource Science 202, and Biology 203 and 360.*

- Students intending to pursue graduate studies should take *Biology 401/402*.

*Biology 101*

Biological interactions. An introduction to selected aspects of biology, including ecology, plant and animal associations, cell biology and molecular genetics, illustrated by examples of current biological interest, and providing the foundations for the four categories of upper-year courses. Two lectures weekly and one three-hour laboratory period fortnightly alternating with a fortnightly one-and-a-half-hour laboratory period. Fortnightly workshop for students lacking OAC biology or its equivalent.  
*D.C. Lasenby and staff*

*Biology 201*

Biology of plants. An introduction to the diversity of plants, focusing on their evolution, design, nutrition, water relations, growth and reproductive biology. Two lectures and three-hour laboratory weekly, tutorials every three weeks.  
*C.D. Maxwell and staff*

*Biology-Environmental and Resource Science 202*

Ecology. A study of the interactions between organisms and their environment; the study of individuals, populations and communities with emphasis on the current theoretical and practical problems in ecology. Prerequisite: One of *Biology 100, 101* or *150*. Highly recommended: *Mathematics-Statistics 150*. Two lectures weekly, and three-hour laboratory fortnightly.  
*E. Nol and R. Jones*

*Biology 203*

Cell Biology. The development, physiology and genetics of cells and tissues. This course introduces students to cell biology. The course covers the basics of cell structure and function with some emphasis on areas of current interest to cell biologists such as signal transduction and molecular biology. Prerequisite: one of *Biology 100, 101* or *150* and *Chemistry 130* or *Chemistry 113a* and *Chemistry 133b*. Two lectures weekly and three-hour laboratory fortnightly.

**Biology 204**

Biology of invertebrates. An introduction to the diversity of invertebrate animals emphasizing their evolutionary relationships and focusing on functional, behavioral and ecological aspects of their biology. Two lectures and one three-hour laboratory weekly and tutorial every two to three weeks.

*I.M. Sandeman and T.R. Matthews*

**Biology-Chemistry 230b**

Elementary biochemistry.  
(See Chemistry)

**Biology-ERS 304**

Aquaculture. (See Environmental and Resource Studies)

**Biology 305**

Limnology. Ecology of freshwater ecosystems. Biology, geochemistry and physics of freshwater lakes, rivers and streams. Prerequisite: *Biology 100, 101 or 150 and Biology/ERS 202*. Highly recommended: *Chemistry 120, 130, 113a, 123b or Chemistry 133b*. Lecture weekly, second lecture or workshop and three-hour lab fortnightly and field trips for which there will be no charge. Enrolment may be limited.

*D.C. Lasenby*

**Biology 309a**

Biology of insects. An introduction to the diversity of the insect world. Lectures emphasize insect behaviour, physiology and anatomy. Labs provide a taxonomic overview of insects. Prerequisite: *Biology 100, 101 or 150*. Two lectures, three-hour laboratory weekly and occasional tutorials. An insect collection is required for this course. Equipment and materials for collecting will be available, for a cash deposit, from the Biology department after the end of classes in the second term.

*J.F. Sutcliffe*

**Biology 310b**

Medical entomology. A study of insects that produce medical conditions as a direct result of their interactions with humans or as carriers of disease. Prerequisites: *Biology 101 or 150 and 309a* or permission of the instructor. Two lectures, tutorial, three-hour laboratory weekly.

*J. Sutcliffe*

**Biology 312**

Vertebrate zoology. The evolution, structural and functional morphology of the vertebrates. Prerequisite: *Biology 100, 101 or 150*; Recommended: *Biology*

*202*. Lecture, three-hour laboratory weekly with required dissections and tutorial every three weeks.

*P.M. Powles*

**Biology 313b**

Vertebrate zoology. The evolution, structural and functional morphology of the higher vertebrates. Prerequisite: *Biology 312a*. Lecture, three-hour laboratory weekly with required dissections and tutorial every three weeks.

*P.M. Powles*

**Biology 314a**

Fish biology. The biology and population dynamics of marine and fresh water fishes and management of fisheries.

Prerequisites: one of *Biology 100, 101 or 150* and *Biology-Environmental Resource Studies 202*. Highly recommended:

*Mathematics-Statistics 150*. Two lectures weekly. Two-hour laboratory and one-hour workshop every three weeks.

*P.M. Powles*

**Biology 321a**

Plant ecology. (Not offered this year.)

**Biology 322a**

Biology of seed plants. The biology of seed producing plants including topics such as identification, growth, development, reproduction, distribution and resource use. Prerequisite: *Biology 201*. Two lectures weekly; weekly field trips for the first six weeks; seminar or tutorial every three weeks. A shrub and tree species collection is required. Details may be obtained from the Secretary of the Biology Department. There will be a total charge of \$35 for field trips.

*R. Jones*

**Biology 324b**

Biology of the algae and cyanobacteria. (Not offered this year.)

**Biology 325a**

Microbiology. An introductory course in microbiology with consideration given to the diversity of microscopic forms, their presence in various habitats, and their impact on mankind. This course places heavy emphasis on laboratory work. Prerequisite: *Biology 100, 101 or 150* and permission of instructor. Recommended: *Biology 203*. Two-hour lecture/tutorial and three-hour laboratory weekly. Enrolment will be restricted to 30, and preference will be given to Biology students in their third and fourth years.

*G. Mitchell*

*Biology 326b*

Advanced microbiology. This course will consist of in-depth study of selected areas in the discipline. The laboratory sessions will be of a project nature with emphasis placed on aquatic microbiology and microbial ecology. This course places heavy emphasis on laboratory work and students are required to be present in the laboratory twice per week. Prerequisite: *Biology 325a*. Recommended: *Biology 203*. Three-hour lecture/tutorial/laboratory setup and three-hour laboratory weekly.  
*G. Mitchell*

*Biology 327b*

Plant population biology. The study of reproductive strategies of plants, with particular emphasis on the success of weed species. Seed production, dispersal, germination, establishment and vegetative means of reproduction will be examined. Prerequisite: *Biology 201*. One lecture and laboratory or project time equivalent to three hours per week and tutorial fortnightly.  
*C.D. Maxwell*

*Biology 328a*

Stress ecology of plants. (Not offered this year.)

*Biology-Chemistry 330*

General biochemistry. (See Chemistry)

*Biology-Psychology 336b*

Animal behaviour. An introduction to the ecological, physiological and evolutionary mechanisms which influence the behaviour of animals, with particular emphasis on animal societies. Prerequisites: *Biology 100, 101 or 150* and Animal Care Course for those involved in projects using vertebrates. Recommended: *Biology 202*. Lecture and film-seminar weekly, tutorial fortnightly, and projects equal to a three-hour laboratory weekly.

*Biology-Anthropology 340*

Primateology. (See Anthropology)

*Biology-Anthropology 341*

Comparative osteology and human evolution. (See Anthropology).

*Biology-Anthropology 343*

Human genetics, growth and adaptability. (See Anthropology.)

*Biology 350a*

Biogeography. Major patterns of distribution and abundance of animal and plant species as affected by geological, ecological and evolutionary processes. Prerequisites: At least one of *Biology*

*100, 101 or 150*, and *Biology 202*. Two hours of lectures weekly, seminar fortnightly, and an optional field trip.

*Biology 360*

Population genetics and evolution. A study of the biological processes and events of evolution, including modes of selection, sources of genetic variation, coevolution and tempo of evolution. Prerequisite: *Biology 100, 101 or 150*. Recommended: *Biology 202*. Two lectures per week, one lab every two weeks and seminar or tutorial every two or three weeks.

*Biology-Psychology 375a*

Principles of the nervous system. (See Psychology)

*Biology-Psychology 376b*

Neuropsychology. (See Psychology)

*Biology 382*

General physiology of animals. The general principles governing physiological processes in animals. Prerequisites: *Biology 100, 101 or 150* and Animal Care Course. Highly recommended: *Chemistry 230b* and *Biology 203*. Lecture, three-hour laboratory weekly and tutorial or seminar fortnightly.  
*T.R. Matthews*

*Biology 390, 391a, 392b, 393c*

Reading course. This course provides an opportunity for more intensive or broader study of a selected topic under the guidance of a faculty member. Open to students who have obtained credits in at least two full courses taught by members of the department of Biology and who have an average of at least 75% in the Biology courses they have taken. Students wishing to enrol in this course must complete an application form available from the Department Secretary. It is the responsibility of the applicant to find a course supervisor and a second reader. All University deadlines as specified in the University Calendar apply. These courses may not be taken in the same academic session as *Biology 490, 491a, 492b* and *493c*.  
*T.R. Matthews and staff*

*Biology 395, 396a, 397b, 398c*

Special topics in biology. These courses are not established as part of the regular biology program and are offered when staffing is available. The topics are in the fields of interest and expertise of the instructor. If offered, the courses will be advertised in the Biology Department.

**Biology 401, 402**

Research thesis. *Biology 402* is a double credit in Biology. *Biology 401* is a single credit involving the same thesis as submitted to the other department/program in a joint major. In this research course students will investigate a specific field of interest under the guidance of a faculty member. The Animal Care Course is a prerequisite, if applicable. To qualify for research theses courses (*Biology 401* and *402*) students should have a 75% average in Biology courses, and the willingness of a faculty member to supervise the project. (In some cases, it may be possible to take *Biology 402* with a 70% average in Biology courses if recommended by a faculty member willing to supervise it.) To be accepted into a joint thesis course the student must meet the requirements of both departments/programs.

*P.M. Powles and staff*

**Biology 403b**

Research design and data analysis. Practical instruction in design of research projects, data collection and analysis, and presentation of results. Prerequisite: *Biology 202* and *Mathematics-Statistics 150*, or permission of instructor. Lecture and workshops weekly and three-hour laboratory every three weeks. Enrolment will be limited to 30.

*E. Nol*

**Biology 404a**

Coral reef biology. An introduction to the ecology and physiology of coral reef organisms and communities. Compulsory week-long field trip to Jamaica in the Fall Reading Week at cost to student. Prerequisites: *Biology 202* and *Biology 204* and at least one other course in Biology or permission of instructor. Lecture and seminar weekly. Field trip represents the equivalent of about three hours work weekly. Enrolment will be limited.

*T.R. Matthews and I.M. Sandeman*

**Biology 405**

Electron microscopy. The biological applications of light, transmission and scanning electron microscopy. Practical instruction in histological and other techniques used in the study of the fine structures of plant and animal tissues. Prerequisite: at least one of *Biology 100*, *101* or *150*. Lecture, tutorial and three-hour laboratory weekly. Enrolment will be restricted, with preference given to Honours Biology majors and Joint majors in the 4th quarter of their programs, and

who have taken *Biology 203*. Registration will be by written permission of the instructor.

*J.F. Sutcliffe*

**Biology 410a**

Parasitology. The ecology, life cycles, physiology and host interactions of the major groups of animal parasites. Prerequisite: *Biology 204*. The Animal Care Course will be required for those intending to study vertebrates. Two lectures, three-hour laboratory period and tutorial weekly.

*I.M. Sandeman*

**Biology-Chemistry 431a**

Development of Enzymology. (See Chemistry.)

**Biology-Chemistry 432b**

Theoretical aspects of enzymology. (See Chemistry.)

**Biology-Chemistry 433b**

Secondary metabolism. (See Chemistry.)

**Biology 439b**

Conservation Biology. This course will focus on the causes and consequences of reductions to biodiversity and the design of strategies to counterbalance these reductions. It will attempt to provide a balanced overview of the discipline outlining both its biological and its human oriented dimensions. Prerequisites: *Biology 101* and *202*. Two hours of lectures and seminar weekly.

**Biology-Anthropology 441**

Comparative primate anatomy. (See Anthropology.)

**Biology 490, 491a, 492b, 493c**

Reading course. This course provides an opportunity for more intensive or broader study of a selected topic under the guidance of a faculty member. Open to students in their fourth quarter who have obtained credits in two full courses taught by members of the Department of Biology and who have an average of at least 75% in the Biology courses they have taken. Students wishing to enrol in this course can obtain an application form from the Department Secretary. It is the responsibility of the applicant to find a course supervisor and a second reader. All University deadlines as specified in the University calendar apply. These courses may not be taken in the same academic session as *Biology 390*, *391a*, *392b* and *393c*.

*T.R. Matthews and staff*

**Biology 495, 496a, 497b, 498c**

Special topics in biology.

## Canadian Studies

*Professor and Chair of the Program*  
C. Verduyn, B.A. (TRENT), M.A., PH.D.  
(OTTAWA)

*Founding President and Vanier Professor Emeritus*

T.H.B. Symons, O.C., B.A. (TORONTO), M.A. (OXFORD), LL.D. (CONCORDIA, DALHOUSIE, LAURENTIAN, MANITOBA, MOUNT ALLISON, NEW BRUNSWICK, PRINCE EDWARD ISLAND, TRENT, WILFRED LAURIER, YORK), D.U. (OTTAWA), D.LITT. (COLOMBO), DIPLOME D'ÉTUDES COLLÉGIALES (DAWSON), F.R.S.C.

*Professors Emeriti*

G. Roper, M.A., PH.D. (CHICAGO);  
A. Wilson, M.A. (DALHOUSIE), PH.D.  
(TORONTO)

*Professors*

J.E. Struthers, M.A. (CARLETON), PH.D. (TORONTO); J.H. Wadland, M.A. (WATERLOO), PH.D. (YORK)

*Associate Professors*

D. Clarke, B.A. (TRENT), M.A. (MCMASTER), PH.D. (CARLETON); M. Lacombe, M.A., PH.D. (YORK)

*Conjunct Professor*

S.G.D. Smith, B.A. (MCGILL), M.A., B.LITT. (OXFORD), D.LITT. (TRENT)

*Adjunct Faculty*

S.D. Grant, M.A. (TRENT); J. Favreau, M.A. (TRENT); M. McGraw, M.S.W. (CARLETON)

*Associated Faculty*

*Anthropology*, S.M. Jamieson, J.M. Vastokas; *Comparative Development Studies*, D.R. Morrison; *Cultural Studies*, J. Bordo; *Economics*, J. Muldoon, P. Wylie; *English Literature*, G.A. Johnston, S.H.W. Kane, O.S. Mitchell, J.E. Neufeld, M.A. Peterman, Z. Pollock; *Environmental and Resource Studies*, T. Whillans; *French*, J.-P. Lapointe; *Geography*, A.G. Brunger, F.M. Helleiner, J.S. Marsh; *History*, B.W. Hodgins, J.N. Jennings, E.H. Jones, P.D.W. McCalla, J. Sangster, S.D. Standen, K. Walden; *Native Studies*, P. Kulchyski, J.S. Milloy; *Philosophy*, J.W. Burbidge; *Political Studies*, R. Campbell, E. Helleiner, K.R.V. Lyon, R.C. Paehlke, J. Wearing; *Sociology*, G. Thibault.

The Canadian Studies Program is not founded upon a single department, but is the product of co-operation by members of several departments and programs within the University. At all levels the

Program encourages the interdisciplinary examination of Canadian experience.

### Notes:

- Students must have completed at least three courses before enrolling in any Canadian Studies course. Exceptions by permission of the instructor only.
- There is no *one-hundred* level course requirement for intending majors in Canadian Studies, but students are strongly encouraged to include in the first year of their program one or more courses that make Canada a central focus, such as *History 100* or *Native Studies 100*.
- Students normally must have completed fifteen courses before enrolling in a *four-hundred* series course. Exceptions by permission of the instructor only, with notice to the Program Chair.
- Available at the office of the Chair is a Program Brochure, providing detailed information about course options for students in Canadian Studies, scholarships and prizes, reading course requirements, and graduate studies.

### Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Canadian Studies. These courses will include *Canadian Studies 200*, *Canadian Studies 250* or *352*, *Canadian Studies 300* and at least three *four-hundred* series Canadian Studies courses.

Joint-major Honours program. Minimum seven courses in Canadian Studies. These courses will include *Canadian Studies 200*, *Canadian Studies 250* or *352*, *Canadian Studies 300* and at least two *four-hundred* series Canadian Studies courses.

Joint-major General program. Minimum five courses in Canadian Studies. These courses will include *Canadian Studies 200*, *Canadian Studies 250* or *352*, and *Canadian Studies 300*.

*Canadian Studies-Environmental and Resource Studies 200*

Canada: The land. An interdisciplinary enquiry into the function and idea of the land in Canadian culture; concepts of the land in history, geography, literature, art, economics, politics and philosophy; settlement and resource development, land policy, aboriginal rights, bioregionalism and social ecology. Lecture weekly; tutorial weekly.

J.H. Wadland

*Canadian Studies-Politics 201*

Canadian politics. (See Political Studies)

*Canadian Studies-History 221*

Modern Ontario. (Not offered this year.)

*Canadian Studies 230*

Canada: Economic policy. (Not offered this year.)

*Canadian Studies-History 235*

Canada since 1914. (See History)

*Canadian Studies-French 250*

La civilisation québécoise. 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. It attempts to synthesize the history of ideas in Quebec to promote a better understanding of contemporary Quebec culture. Prerequisite: *French 110* or by permission of the instructor. Lecture weekly; seminar weekly.

*J.-P. Lapointe*

*Canadian Studies-Anthropology-Native Studies 253*

Art of the Americas. (See Anthropology)

*Canadian Studies-History 254*

Canada and the modern experience. (See History)

*Canadian Studies-Native Studies-History 255*

History of the Indians of Canada. (See Native Studies)

*Canadian Studies-Economics 260a*

Canadian economic growth and development I: up to 1929. (See Economics)

*Canadian Studies-Economics 261b*

Canadian economic growth and development II: after 1929. (See Economics)

*Canadian Studies-Geography 263a*

Historical Geography. (See Geography)

*Canadian Studies-English 265*

English Canadian Prose. (See English Literature)

*Canadian Studies-English-Women's Studies 266*

Canadian Women's Writing. Works by women in both English Canada and Quebec with special emphasis on the contemporary period and feminist literary theories. Lecture weekly; seminar weekly.

*C. Verduyn*

*Canadian Studies-Native Studies-History 270*

History and politics of the Metis and non-status Indians of Canada. (See Native Studies)

*Canadian Studies-Women's Studies 275*

Women in Canada. Introduction to six themes in Canadian feminist studies, selected from the following, and varying from year to year: native women; Quebec women; rural women; women and religion; life writing; literary theory; immigrant women/women of colour; women and political processes; ecofeminism; women and work. Weekly lecture and tutorial.

*M. Lacombe*

*Canadian Studies-Native Studies 285*

Native People and the North. (See Native Studies)

*Canadian Studies 290*

Religion in Canada. A consideration of the role religious traditions have played in Canadian culture. Two-hour seminar weekly. (Not offered this year)

*Canadian Studies-History 300*

Canada: Communities and identities. An interdisciplinary study of regionalism ethnicity and community in Canadian life. First Term: regional identity in Western, Atlantic, Central and Northern Canada. Second Term: immigration, multiculturalism, minority rights, and ethnic identity. Lecture weekly; seminar fortnightly.

*J.E. Struthers*

*Canadian Studies-History-Politics 301*

Canadian political culture, 1864 to the present. (See History)

*Canadian Studies-History 302*

The emergence of modern Quebec, 1886-1970. (See History)

*Canadian Studies-History 303*

Early French Canada: economic, social, institutional and ideological foundations of Quebec. (See History)

*Canadian Studies-Politics 305*

Politics and society in Quebec. (See Political Studies)

*Canadian Studies-History 307*

The Atlantic provinces. (Not offered this year.)

*Canadian Studies-History 308*

Business history: The Canadian experience in international perspective, 1650-1960. (See History)

*Canadian Studies-Politics 309*

Ontario politics. (See Political Studies)

*Canadian Studies-Environmental and Resource Studies 310*

Public policy and the Canadian environment. (See Environmental and Resource Studies)

- Canadian Studies-History-Women's Studies 316*  
Women in North America. (See History)
- Canadian Studies-Politics 322*  
The Politics of North American Economic Integration (See Political Studies)
- History - Canadian Studies 324*  
Canada: The North (See History)
- Canadian Studies-French 325*  
Théâtre et poésie du Québec. (See MLL-French section)
- Canadian Studies-Geography 332b*  
Settlement Geography. (See Geography)
- Canadian Studies-Environmental and Resource Studies-Geography 333a*  
Wilderness resources. (See Geography)
- Canadian Studies-Sociology 340*  
Sociology of education. (See Sociology)
- Canadian Studies-Anthropology-Native Studies 351*  
Art, architecture and society. (See Anthropology)
- Canadian Studies 352*  
La Francophonie: French identities in Canada. Overview of the cultural perspectives and historical experiences of Québécois, franco-American, Acadian, "Ontarois" and Franco-Manitoban communities. Brief overview of 19th century; primary focus on modern and contemporary period. Lectures, films, readings, and tutorials in English, but French texts optional and one French tutorial available if numbers warrant. Weekly lecture; fortnightly tutorial.  
*M. Lacombe*
- Canadian Studies 355*  
English Canadian and Quebec prose literature. (Not offered this year.)
- Canadian Studies-Cultural Studies 356*  
(Post) Modernity and the sublime. (See Cultural Studies)
- Canadian Studies-English-Native Studies 360*  
Native peoples in literature. (See English Literature)
- Canadian Studies-Geography 361*  
Geography of Canada. (See Geography)
- Canadian Studies-Politics 362*  
Public policy and administration in Canada. (See Political Studies)
- Canadian Studies-Geography 363b*  
Historical Geography of Canada before 1900. (See Geography)
- Canadian Studies-Geography 364 (alb)*  
Geography of the Polar regions. (See Geography)
- Canadian Studies-English 365*  
English-Canadian Poetry (See English Literature)
- Canadian Studies-Politics 366*  
Canadian political economy. (See Political Studies)
- Canadian Studies 370*  
Science in Canadian society. (Not offered this year.)
- Canadian Studies-Geography 371 (alb)*  
Urban planning. (See Geography)
- Canadian Studies-Geography 376 (alb)*  
The Urban-Rural fringe. (See Geography)
- Canadian Studies-French 383*  
Le roman québécois. (See MLL - French Section)
- Canadian Studies-Economics 384b*  
Health economics. (See Economics)
- Canadian Studies-Sociology 389*  
The social structure of Canada. (See Sociology)
- Canadian Studies 390, 391a, 392b, 393c*  
Reading course. A structured course arranged between student and instructor, approved by the Program Chair, involving independent study of material. Regular meetings and detailed written work. See Program Brochure for further details and requirements.
- Canadian Studies 395, 396a, 397b, 398c*  
Special topic. A structured course arranged by a group of students and an instructor, approved by the Program Chair.
- Canadian Studies 401*  
Single credit Honours thesis. Arrangements to be made through the Program Chair.
- Canadian Studies 402*  
Double credit Honours thesis. Arrangements to be made through the Program Chair.
- Canadian Studies-History 403*  
Canadian intellectual and cultural history. (See History)
- Canadian Studies-Politics 405*  
Contemporary Canadian problems. (See Political Studies)
- Canadian Studies-History 406*  
Upper Canada. (See History)
- Canadian Studies-History 407*  
The Canadian-American frontier. (See History)



*Canadian Studies-History 410*

Social and political traditions and ideas in the United States and Canada, since 1896. (See History)

*Canadian Studies-Anthropology 415*

Prehistory of Ontario. (See Anthropology)

*Canadian Studies-History 422*

Canada: The North. (See History)

*Canadian Studies-History-Native Studies 425*

The evolution of the settlement commonwealth. (See History)

*Canadian Studies-Sociology 445*

The media and communications in Canada. An examination and analysis of the communications industries and policies of Canada. The growth and development of newspaper, periodical and book publishing, and of film, radio, television, and new communication technologies. Two-hour seminar weekly. *D. Clarke*

*Canadian Studies-Anthropology-Native Studies 450*

Native Art of Canada. (See Anthropology)

*Canadian Studies-Comparative Development 460*

Canada and the Third World. (See Comparative Development Studies)

*Canadian Studies-English 465*

Advanced studies in Canadian Literature. (See English Literature)

*Canadian Studies-English 466*

Canadian literary pluralities. An introduction to work by writers of immigrant or ethnic minority identification in Canada. After an initial exploration of the theoretical issues involved in the study of this literature, the course will examine a selection of literary works.

*C. Verduyn*

*Canadian Studies-History 475*

History of everyday life. (See History)

*Canadian Studies-History 476*

Studies in Canadian labour. (Not offered this year.)

*Canadian Studies-History 477*

Studies in Canadian social policy. This research course examines the evolution of social policy from the early 19th to the late 20th century; governmental, professional and organizational responses to poverty, disease, old age, mental illness, physical disability, family fragmentation. Seminar fortnightly.

*J.E. Struthers*

*Canadian Studies 485, 486a, 487b, 488c*

Field course. A structured course of supervised activity in the field, including detailed written work. Arrangements to be made through Program Chair.

*Canadian Studies 490, 491a, 492b, 493c*

Reading course. A structured course arranged between student and instructor, approved by the Program Chair, involving independent study of material. Regular meetings and detailed written work. See Program Brochure for details and requirements. For 1994-95, one formal reading course, *Canadian Studies-Environmental and Resource Studies 4901* will focus on Bioregionalism: The Otonabee River Watershed, Haliburton Section. Ecology, history and culture; sustainable development; appropriate technology; regional planning.

*J.H. Wadland, T. Whillans*

*Canadian Studies 495, 496a, 497b, 498c*

Special topic. A structured course arranged by a group of students and an instructor, approved by the Program Chair.

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## Diploma Program in Canadian Studies

The Canadian Studies Program offers a special Diploma for students who wish to undertake a single academic year (September-April) focused directly upon Canadian political economy, society, environment and culture. Individuals wishing to enrol in the diploma program must apply, in writing, to the Chair of the Canadian Studies Program, indicating course preferences. As the number of spaces is limited, acceptance is not automatic. A committee made up of faculty members teaching in the Canadian Studies Program, will select the successful candidates in consultation with the Admissions Committee.

**Eligibility**

Applicants must either be students registered in, or graduates of an accredited post-secondary educational institution other than Trent University. An official transcript, including evidence of the content of courses completed and grades received must accompany the application.

### Language Requirements

In accordance with University regulations applicants must have a competence in written and spoken English. Facility in the French language is desirable but not compulsory.

### Special Events

All students admitted to the Diploma program will attend field trips, films, special lectures and conferences as part of their curricular activity.

### Visas, Fees and Accommodation

International students admitted to the Diploma program are expected to make their own arrangements for visas, financing and accommodation during the year at Trent. Nevertheless, every effort will be made to assist in this process.

### The Diploma

The official Diploma will be awarded in the Spring. With it will be included an official Trent University transcript identifying all courses undertaken and grades received.

### Course Requirements

All students admitted to the Diploma program will be required to take four courses and the Canadian Studies Colloquium. One course must be selected from each of columns A, B and C (for a total of three courses):

A	B	C
Studies in the Social Sciences	Studies in Regionalism and the Environment	Studies in Culture
201	200	250
230	221	252
235	285	253
255	300	254
260a	302	265
261b	303	266
270	305	290
275	307	325
301	309	351
308	310	357
316	332a/b	360
322	333a/b	365
340	361	383
362	364a/b	403
366	371a/b	413
370	376a/b	445
375	406	450
384b	407	465
389	415	466
405	422	
410		
425		
460		
475		
476		
477		

All students must enroll in either *Canadian Studies 200* or *Canadian Studies 300* and in the Canadian Studies Colloquium. The Colloquium is not a graded course but is offered as a venue for special seminars and lectures on subjects of interest to students in the Diploma program. It will also function as a vehicle for sorting out areas of difficulty and for integrating material from the various courses. Students must complete formal courses with a mark of 60% or better in order to qualify for the Diploma.

## Chemical Physics

### Program Co-ordinators

*Chair of the Department of Chemistry*  
J.M. Pamis, B.Sc., PH.D. (TORONTO)

*Chair of the Department of Physics*  
P.C. Dawson, M.Sc. (TRENT), PH.D. (VICTORIA)

### Professors

See listing of faculty in Chemistry, Mathematics and Physics

### Required Courses

The program in Chemical Physics is a sequence of mutually supportive courses offered by the Departments of Chemistry, Physics and Mathematics that comprise an integrated whole. Not available as a joint-major.

The General program consists of a minimum of ten courses in the three disciplines, including:

*Chemistry* 113 and 123b; or

120

200

300

*Physics*

100

202a

302a

321

*Mathematics*

110

200

301

either *Chemistry 130* or a two-hundred or three-hundred level Physics or Chemistry course.

### The Honours Program

Requirements for the General program must be met, plus: two of *Chemistry 403a, 404b, 405b*; *Physics 400*; three more courses in Chemistry, Physics or Mathematics, of which two must be at the four-hundred level.

**Notes:**

- For more detailed information, see separate Calendar entries for Chemistry and Physics.
- Students wishing to transfer to a single-major program should consult the appropriate Department Chair before commencing the third quarter.

**Chemistry***Associate Professor and Chair of the Department*

J.M. Parnis, B.S.C., PH.D. (TORONTO)

*Professors Emeriti*

S.A. Brown, B.S.A. (TORONTO), M.S., PH.D. (MICHIGAN STATE); K.B. Oldham, PH.D., D.S.C. (MANCHESTER), F.C.I.C.; A.H. Rees, M.A., PH.D. (CAMBRIDGE), M.A. (OXFORD), PH.D. (LONDON), F.C.I.C., ASSOC. R.C.S.; R.A. Stairs, B.S.C. (MCGILL), M.S.C. (WESTERN ONTARIO), PH.D. (CORNELL), F.C.I.C.

*Professors*

P.F. Barrett, M.S.C. (QUEEN'S), PH.D. (TORONTO), F.C.I.C.; E.G. Lewars, B.S.C. (LONDON), PH.D. (TORONTO); R.E. March, B.S.C. (LEEDS), PH.D. (TORONTO), F.C.I.C. (on leave Winter Term 1995)

*Associate Professor*

R.G. Annett, B.S.C., PH.D. (WINDSOR)

*Assistant Professor*

J.F. Cormier, B.S.C. (ST. FRANCIS XAVIER), PH.D. (MCGILL)

*Conjunct Associate Professors*

R.C. Makhija, M.S.C., PH.D. (LUCKNOW), C.CHEM., F.C.I.C.; A.M. Zobel, M.S.C., PH.D. (WARSAW)

*Demonstrators*

H. Al-Haddad, B.S.C. (BAGHDAD), PH.D. (STRATHCLYDE), M.C.I.C.; S. Landry, B.S.C. (TRENT)

**Required Courses**

The single-major Honours program consists of twenty courses of which at least ten must be Chemistry courses, including:

*Chemistry 103a, 113a and 123b*; or  
*Chemistry 120, 113a and 133b*; or  
*Chemistry 130, 103a and 123b*; or  
*Chemistry 120 and 130*  
*Chemistry 200*  
*Chemistry 210a and 211b*  
*Chemistry 240a*

three *three-hundred* level Chemistry courses

four *four-hundred* level courses, of which one may be from another discipline, including at least three Chemistry lecture half-courses and no more than two credits from project courses.

Joint-major Honours program. To arrange an appropriate program, early consultation with both departments is urged. A minimum of seven courses in Chemistry is required, including:

*Chemistry 103a, 113a and 123b*; or  
*Chemistry 120, 113a and 133b*; or  
*Chemistry 130, 103a and 123b*; or  
*Chemistry 120 and 130*

three *two-hundred* level or *three-hundred* level Chemistry courses  
 two *four-hundred* level Chemistry courses.

Single-major General program. Minimum six Chemistry courses, including:

*Chemistry 103a, 113a and 123b*; or  
*Chemistry 120, 113a and 133b*; or  
*Chemistry 130, 103a and 123b*; or  
*Chemistry 120 and 130*

*Chemistry 200*  
*Chemistry 210a*  
*Chemistry 240a*

two *three-hundred* level or *four-hundred* level Chemistry courses.

Joint-major General program. Minimum five Chemistry courses, including:

*Chemistry 103a, 113a and 123b*; or  
*Chemistry 120, 113a and 133b*; or  
*Chemistry 130, 103a and 123b*; or  
*Chemistry 120 and 130*

three *two-hundred* level or *three-hundred* level Chemistry courses.

See also listings under Biochemistry and Chemical Physics.

**Special Provisos**

- Students who had successfully completed two or more full Chemistry courses at the *two-hundred* level prior to September 1992 are not required to take *Chemistry 240a* for the purpose of fulfilling single-major, General or Honours Chemistry degree requirements.
- If successfully completed before September 1994, the combination of *Chemistry 240a* and *Chemistry-Environmental and Resource Science 341b* may be regarded as a full *three-hundred* series course in Chemistry.
- Departures from the normal pattern of courses may sometimes be permitted. Apply to the Chair.

**Notes:**

- First year students who intend to major in Chemistry or Biochemistry are encouraged to take all of *Chemistry 103a, 113a, 123b* and *133b* in the first year.
- First year students who wish to take one Chemistry credit only, and whose principal interest is in Physics or Mathematics or Environmental and Resource Studies, should enrol in *Chemistry 113a* and *123b*.
- First year students who wish to take one Chemistry credit only, and whose principal interest is in the life sciences should enrol in *Chemistry 113a* and *133b*.
- First year Chemistry courses proceed at a pace appropriate to students with an OAC or equivalent in Chemistry. Students without this background may need to undertake extra studies; they should contact the instructor prior to registration, so that special arrangements can be made.
- Students who intend to major in Chemistry should note that a grounding in Physics and in Mathematics is essential.
- All students taking one or more Chemistry courses pay a laboratory deposit of \$60 for one laboratory course or \$100 for two or more laboratory courses. This deposit may be returned wholly or in part depending on breakages incurred.
- Laboratory manuals or other course material, where provided are subject to a charge.

**Chemistry 103a**

Quantitative tools in chemistry. Basic numerical, symbolic, and computing skills, as are required in chemistry. Three lectures and one small group meeting weekly.

**Staff****Chemistry 113a**

Introductory general and organic chemistry. An introduction to chemistry of an inherently qualitative nature. Essential aspects of general and organic chemistry to serve as a foundation for further courses in chemistry, biochemistry and biology. Three lectures weekly; laboratory and problem session in alternate weeks.

*J.F. Cormier*

**Chemistry 123b**

Introductory physical and inorganic chemistry. The chemical structure of the three states of matter and of solutions. An introduction to how such systems behave thermodynamically and kinetically.

Prerequisite: *Chemistry 113a*. Three lectures weekly; laboratory and problem session in alternate weeks.

*P.F. Barrett*

**Chemistry 133b**

Introductory biochemistry. Of interest to both biologists and chemists, this course introduces the chemical concepts underlying biologically-important compounds and processes. Prerequisite: *Chemistry 113a*. Two lectures weekly; laboratory and problem session in alternate weeks.

*R.G. Annett*

**Chemistry 200**

Elementary physical chemistry. The kinetic theory of gases; thermodynamics of physical and chemical processes chemical kinetics; electrochemistry. Prerequisites: *Chemistry 120* or the combination of *Chemistry 103a* and *Chemistry 123b*; *Mathematics 110* (preferred for students continuing in physical chemistry), *Mathematics 100* or permission of instructor. First half year: one tutorial and three lectures weekly; second half year: one tutorial and two lectures or three lectures, and one laboratory weekly.

**Staff****Chemistry 210a**

Elementary organic chemistry. Chemical techniques and the chemistry of those important classes of organic compounds that form the basis of both organic chemistry and biochemistry. Prerequisite: *Chemistry 113a* or *130*. Three lectures and laboratory weekly; tutorial to be arranged.

*J.F. Cormier*

**Chemistry 211b**

Continuing organic chemistry. Main classes of compounds including some with more than one functional group. Synthetic methods and mechanisms; spectroscopy; qualitative organic analysis; laboratory preparations. Prerequisite: *Chemistry 210a*. Three lectures and laboratory weekly; tutorials to be arranged by instructor.

*J.F. Cormier*

**Chemistry-Biology 230b**

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

*R.G. Annett*

*Chemistry 240a*

Analytical chemistry. The theory of chemical equilibrium as it applies to chemical analysis; experiments in gravimetric and volumetric analysis. Prerequisite: *Chemistry 123b*. Corequisite: *Chemistry 103a*. Two lectures and laboratory weekly; tutorials to be arranged by instructor.  
Staff

*Chemistry 300*

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

*Chemistry 310*

Organic chemistry. A survey of organic chemistry, including heterocycles and some natural products. Mechanistic aspects and modern spectroscopic methods will be emphasized. Prerequisite: *Chemistry 211b*. Two lectures or tutorials and one laboratory weekly.  
*E.G. Lewars*

*Chemistry 320*

Inorganic chemistry. Atomic structure and its relation to chemical properties of the elements, theories of chemical bonding, stereochemistry of inorganic compounds, coordination chemistry. Prerequisite: *Chemistry 200*; or *Chemistry 123b* with permission of instructor. Two lectures and laboratory weekly; tutorial or seminar in alternate weeks.  
*P.F. Barrett*

*Chemistry-Biology 330*

General biochemistry. Chemical processes in animals, higher plants and micro-organisms; composition of tissues; biocatalysis and the nature of enzymes; energy relationships; the formation and degradation of metabolically important compounds and the control of metabolism. Prerequisite: *Chemistry-Biology 230b* or *Chemistry 211b*. Two lectures and laboratory weekly; tutorial or seminar in alternate weeks.  
*R.G. Annett and Staff*

*Chemistry-Environmental and Resource Science 341b*

Instrumental analysis. Theory and practice of electrochemical, spectroscopic and chromatographic methods in analysis; sampling theory and strategies; trace

analysis. Prerequisite: *Chemistry 240a*. Laboratory and three lectures weekly, tutorials to be arranged by instructor.  
Staff

*Chemistry 403a*

Electrochemistry. Not offered this year.

*Chemistry 404a*

Gas phase reaction dynamics. Prerequisite: *Chemistry 300*. Two lectures, tutorials or seminars weekly.  
*R.E. March*

*Chemistry 405b*

Quantum mechanics in chemistry. Fundamentals and applications of quantum mechanics in chemical systems. Wave functions, rotational and vibrational motion, structure of atoms and molecules, bonding theories, spectroscopy. Prerequisite: *Chemistry 300* and *Mathematics 200* or permission of instructor. Three lecture hours per week.  
*J.M. Parnis*

*Chemistry 411b*

Retrosynthetic analysis. (Not offered this year.)

*Chemistry 412a*

Modern organic synthesis. Prerequisite: *Chemistry 310*. Two lectures, tutorials or seminars weekly.  
*E.G. Lewars*

*Chemistry 413b*

Computational Chemistry. The use of molecular mechanics, semi-empirical and ab-initio methods in the investigation of molecular structure and reactivity. Prerequisite: *Chemistry 200* and *Chemistry 211b*.  
*E.G. Lewars*

*Chemistry 421a*

Organometallic chemistry. (Not offered this year.)

*Chemistry-Physics 422a*

Principles and applications of group theory. Principles and applications of symmetry and group theory in molecular systems. Quantum mechanics, molecular orbital theory, ligand field theory, electronic and vibrational spectroscopy. Prerequisite: *Chemistry 300* or *Chemistry 320* or *Physics 302a* or permission of instructor. One two-hour lecture or discussion meeting weekly.  
*P.F. Barrett*

*Chemistry 423a*

Advanced topics in inorganic chemistry. (Not offered this year.)

**Chemistry-Biology 431a**

Development of enzymology.

Prerequisite: *Chemistry-Biology 330*.

Lecture weekly; tutorial and seminar in alternate weeks.

*R.G. Annett*

**Chemistry-Biology 432b**

Theoretical aspects of enzymology.

(Not offered this year.)

**Chemistry-Biology 433b**

Secondary metabolism. Prerequisite:

*Chemistry-Biology 330*. Lecture weekly, tutorial and seminar in alternate weeks.

*Staff*

**Chemistry 451**

Project course in chemistry or biochemistry. Study, usually involving experimental research, under the supervision of a faculty member.

Seminars and written report. About eight hours per week. Prerequisite or corequisite: two chemistry lecture half-courses at the four-hundred level.

Permission required. Contact Coordinator as soon as possible and no later than the beginning of the previous term.

*Coordinator: J.F. Cormier*

**Chemistry 452**

Double-credit project course in chemistry or biochemistry. About 16 hours per week; otherwise, as *Chemistry 451*.

*Coordinator: J.F. Cormier*

**Chemistry 453a, 454b, 455c**

Half-credit project courses in chemistry or biochemistry. As *Chemistry 451*; about eight hours per week (about four hours for *Chemistry 455c*).

*Coordinator: J.F. Cormier*

**Chemistry 490**

Reading course: Topics from one of the following fields: analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry, and theoretical chemistry. Project work outside the laboratory may be involved. Offered only by prior arrangement; see Chair.

**Chemistry 497b**

Special Topics: Qualitative Spectroscopic Analysis. Application of UV-visible, infrared, nuclear magnetic resonance and mass spectroscopy to the elucidation of molecular structure. Two lecture hours weekly. Prerequisite: *Chemistry 211b*.

*J.F. Cormier*

**Classical Studies**

*Professor and Chair of the Department*

I.C. Storey, B.A. (UNIV. TRIN. COLL.), M.A., PH.D. (TORONTO), M.PHIL. (OXFORD)

*Professors*

J.P. Bewes, B.A. (QUEEN'S), M.A., PH.D. (LONDON); K.H. Kinzl, DR. PHIL. (VIENNA)

*Associate Professor*

D.F.R. Page, B.A. (SHEFFIELD);

*Adjunct Faculty*

J.M. Tinson, B.A. (TRENT), M.A. (QUEEN'S)

The department contains three distinct fields, which for the purpose of degree regulations are treated as separate disciplines. Courses are offered towards majors in:

- A. Latin Language and Literature
- B. Greek Language and Literature
- C. Classical Studies
  - a. Classical History
  - b. Classical Studies

**Required Courses**

The single-major Honours program consists of nineteen courses, for which the minimum requirements are:

- A. Latin Language and Literature: eight courses in Latin which must include:
  - Latin 200* and *220*
  - Two four-hundred level courses in Latin
  - plus one course in Roman History.
- B. Greek language and literature: eight courses in Greek which must include:
  - Greek 200* and *220*
  - Two four-hundred level courses in Greek
  - plus one course in Greek History.
- C. a. Classical History: nine courses
  - Classical History 100* and *201*
  - Four two-hundred level or three-hundred level courses in Classical History (one course in Classical Civilization may be substituted).
  - Classical History 410* or *420*
  - Classical History 490*
  - One two-hundred level course in Latin or Greek.
- b. Classical Studies: ten courses in the Department of Classical Studies, of which six must be beyond the one-hundred level and at least two at the three-hundred level. The program must include:
  - Two of *Classical Literature 490*, *Classical Civilization 490*, *Classical History 410* or *420* or *490*. Students who propose to

include more than two Greek or Latin courses in their program will need to obtain the permission of the Department.

The minimum requirements for the joint-major Honours program are:

- A. Latin language and literature: seven courses in Latin, which must include:  
*Latin 200* and *220*  
Two *four-hundred* level courses in Latin.
- B. Greek language and literature: seven courses in Greek, which must include:  
*Greek 200* and *220*  
Two *four-hundred* level courses in Greek.
- C. a. Classical History: seven courses  
*Classical History 100* and *201*  
Two other *two-hundred* level or *three-hundred* level courses in Classical history (one Classical Civilization course may be substituted).  
*Classical History 410* or *420*  
*Classical History 490*.  
One *two-hundred* level course in Greek or Latin
- b. Classical Studies: seven courses in the Department of Classical Studies, of which five must be beyond the *one-hundred* level and at least one at the *three-hundred* level. The program must include:  
Two of *Classical Literature 490*,  
*Classical Civilization 490*  
*Classical History 410* or *420*  
or *490*.
- Single-major in the General program.
- A. Latin Language and Literature: six courses in Latin, including *Latin 200* and *220*.
- B. Greek Language and Literature: six courses in Greek, including *Greek 200* and *220*.
- C. a. Classical History: six courses in Classical History, two at the *three-hundred* level, including:  
*Classical History 100* and *201*  
One course in Classical Civilization may be substituted for a course in Classical History.
- b. Classical Studies: seven courses in the Department of Classical Studies, of which four must be beyond the *one-hundred* level and two at the *three-hundred* level. Students who propose to include more than two courses in Latin or Greek must obtain the permission of the Department.

Joint-major in the General program.

- A. Latin Language and Literature: five courses in Latin, including *Latin 200* and *220*.
- B. Greek Language and Literature: five courses in Greek, including *Greek 200* and *220*.
- C. a. Classical History: five courses in Classical History, of which one must be at the *three-hundred* level, including:  
*Classical History 100* and *201*  
One course in Classical Civilization may be substituted for a course in Classical History.
- b. Classical Studies: five courses in the Department of Classical Studies, of which four must be beyond the *one-hundred* level and at least one at the *three-hundred* level. Students who propose to include more than one course in Latin or Greek will need to obtain the permission of the Department.

#### Notes and Special Provisos

- A joint-major in two of the separate programs offered by the Department (Latin, Greek, Classical History or Classical Studies) is permitted under the regulations of the University.
- Students are not limited to a maximum of twelve courses within the Department (eight in a General program), as long as they do not exceed the maximum of twelve (or eight) within a particular discipline.
- Students who propose to pursue a single or joint-major within the Department should consult the Chair at the end of their first year or very early in their second year.
- Students may take both *Classical History 100* and *Classical History 201* in their first year.
- Courses at the *four-hundred* level are normally limited to students in the fourth quarter of the Honours program.
- *Philosophy 210* may be counted as a credit toward programs in Classical Studies.
- One of *Classical Literature 100* or *200* may be counted for credit toward a major in English.
- *Classical Civilization 231a* and *232b* are core courses in the Program of Women's Studies.
- Only one course in New Testament Greek may be counted toward a major in Greek.
- Students in the Honours program in Classical Studies are strongly advised to include one course in Latin or Greek.

- Students considering graduate work in any branch of Classical Studies are strongly encouraged to begin their study of the ancient languages as early as possible. An upper-year course in German or French is highly recommended.
- Reading and special-topic courses: offered in Greek, Latin, Classical History, Classical Civilization, and Classical Literature, these are courses designed after consultation with the department by March of the preceding academic year, and are subject to the availability of faculty. Reading courses use the 390 or 490 designation; special-topic courses (which meet on a weekly basis) the 395 or 495 designation. The department will indicate in the spring the format for a particular course. Students are not restricted to one such course either in one year or in their overall program. Indeed completion of more than one such course will be essential for certain programs within the department. Half-courses (391/491a; 392/492b; 396/496a; 397/497b) are offered only under special circumstances.

### Latin Language and Literature

#### *Latin 100*

Elementary Latin. Latin through reading. For students with little or no previous knowledge of the language. No prerequisite. Four hours weekly.  
*D.F.R. Page*

#### *Latin 200*

Intermediate Latin. Continuation and completion of Latin grammar, with reading of relatively easy selections from prose and verse, republic to silver age. Prerequisite: *Latin 100* or OAC Latin. Three hours weekly, including language study.  
*Staff*

#### *Latin 220*

Myths and legends of the origins of Rome, as illustrated in the works of Vergil and Livy, writers of the Augustan Period. Prerequisite (or corequisite): *Latin 200*, or permission of the Department. Three hours weekly, including language study.  
*Staff*

#### *Latin 390 or 395*

Reading or special-topic course in Latin language and literature. Prerequisite: *Latin 200* or *220*.  
*Staff*

#### *Latin 490 or 495*

Reading or special-topic course in Latin language and literature.  
*Staff*

### Greek Language and Literature

#### *Greek 100*

Elementary Greek. An introduction to the basic elements of ancient Greek providing the fundamentals of grammar and vocabulary to allow the student to read ancient Greek literature in the second year. Some easy selections of ancient Greek will be read in this course. No prerequisite. Four hours weekly.  
*Staff*

#### *Greek 200*

Intermediate Greek. Continuation and completion of classical Attic syntax and grammar, with readings from Lysias (Against Eratosthenes), Euripides (Alceste), Lucian ('Real' History). Prerequisite: *Greek 100* or OAC Greek. Three hours weekly, including language study.  
*Staff*

#### *Greek 220*

Epic and tragedy. Reading from Homer (Odyssey) and a Greek tragedy. Prerequisite (or corequisite): *Greek 200*. Three hours weekly, including language study.  
*I.C. Storey*

#### *Greek 240*

New Testament Greek. (Not offered this year.)

#### *Greek 390 or 395*

A reading or special-topic course in Greek language and literature. Prerequisite: *Greek 200* or *220*.  
*Staff*

#### *Greek 490 or 495*

A reading or special-topic course in Greek language and literature.  
*Staff*

### Courses in Translation

#### Classical History

##### *Classical History 100*

Ancient Greek society and institutions: the history of Greece from the beginnings to the decline of the city-states. An introduction to the study of ancient history illustrated by the problems of the period 600-323 B.C. (early Sparta, the reforms of Solon and Kleisthenes, Greek tyranny, the emergence of democracy, the Athenian Empire, the world empire of Alexander). Two lectures weekly, fortnightly seminar.  
*K.H. Kinzl*



*Classical History 201*

Rome from the Republic to the Caesars, c. 150 B.C. - A.D. 69. A study of republican institutions, Roman imperialism, the crisis which witnessed the collapse of the republic in the last century B.C., the monarchy of Julius Caesar, the 'restored republic' and the new order of the principate of Augustus; the administrative, military, economic and social developments under the Julio-Claudian dynasty. Two lectures weekly, fortnightly seminar. Open to first-year students.

*D.F.R. Page*

*Classical History 205a*

International relations in the Greek world c. 500-146 B.C. This course examines such aspects as national and 'racial' attitudes, imperialism, alliances and diplomacy, political propaganda, etc. Special attention will be given to the original documents of the time, to be studied in translation. Weekly two-hour meetings. Open to students in the second quarter and beyond.

*K.H. Kinzl*

*Classical History 207b*

Alexander the Great and his age. A course offering both a survey of the life and deeds of Alexander and an examination of the background, the ancient sources, and modern assessments. Weekly two-hour meetings. Open only to students in the second quarter or beyond. Students not majoring in Classical History or History should consult the instructor for permission.

*K.H. Kinzl*

*Classical History 305*

Government and politics in the Greek city-states, c. 600-300 B.C. A course examining such forms of government as democracy, tyranny, oligarchy, etc. Open only to Classical History students beyond the second quarter, except with the permission of the instructor. Two-hour meeting weekly.

*K.H. Kinzl*

*Classical History 331*

The Augustan principate and its origins, 44 B.C. - A.D. 14. A study of Roman political history, in particular the career of the first emperor Augustus, covering the period from the assassination of Julius Caesar to the death of Augustus. Special attention will be given to the ancient documents, to be studied in translation. Two-hour weekly meeting. Prerequisite: *Classical History 201*, or with the permission of the instructor.

*D.F.R. Page*

*Classical History 351a*

The Roman Empire, A.D. 69-305. (Not offered this year.)

*Classical History 352b*

The Late Roman Empire, A.D. 305 to c. 600. (Not offered this year.)

*Classical History 390 or 395*

A reading or special-topic course in classical history, open to students in the third and fourth quarter. Prerequisite: two courses in Classical Studies in translation one of which must be at the upper-year level.

*Staff*

*Classical History 410*

The Athenian Empire: political and intellectual developments in the fifth century. Regular two-hour meetings. Prerequisite: *Greek 100* or OAC Greek.

*K.H. Kinzl*

*Classical History 420*

The Principates of Nerva, Trajan, and Hadrian (A.D. 96-138). (Not offered this year.)

*Classical History 490 or 495*

A reading or special-topic course in classical history. Prerequisite: *Greek 100* or OAC Greek, or *Latin 100* or OAC Latin.

*Staff*

**Classical Literature***Classical Literature 100*

Greek drama in translation. Selected plays of the three major tragedians (Aeschylus, Sophocles, Euripides), and of the two comic poets (Aristophanes, Menander). Lectures will present also the role of drama in classical Greek society. Two lectures weekly, fortnightly seminar.

*I.C. Storey*

*Classical Literature 200*

Mythological themes in Greek and Latin literature, e.g. gods and demi-gods, the hero, epic and tragic; the quest theme; and literary archetypes. This course will also deal with modern theories concerning the nature and function of myth. Weekly lecture and fortnightly seminar. Open to students beyond the first quarter.

*J.P. Bews*

*Classical Literature 390 or 395*

A reading or special-topic course in classical literature, open to students in the third and fourth quarter. Prerequisite: two courses in Classical Studies in translation, one of which must be at an upper-year level.

*Staff*

**Classical Literature 490 or 495**

A reading or special-topic course in classical literature.

*Staff*

**Classical Civilization****Classical Civilization-Anthropology-Geography 223a**

The ancient city. The developments, innovations, and achievements of the city in the Greek and Roman world from the Bronze Age to the late Empire. Among the various sites to be studied are the palace-cities of Minoan Crete and Mycenaean Greece; Thera; Athens; Rome; Pompeii and Herculaneum. Considerable visual aids will be employed in presenting the material. Two lectures weekly plus fortnightly seminar. Open to students in the second quarter and beyond.

*Staff*

**Classical Civilization-Anthropology 224b**

Introduction to Classical Archaeology. A survey course of the most important sites in classical archaeology, including those of the Aegean Bronze Age (Crete, Mycenaean Greece, Thera), the Greek classical age (Athens, Verghina, Pergamon), and the Roman world (Etruscan and imperial Roman). The course will focus on the methods, achievements, and mistakes of classical archaeologists and on the art-history of the actual remains (sculpture, architecture, vases). Two lectures weekly plus fortnightly seminar. Open to students in the second quarter and beyond.

*Staff*

**Classical Civilization-Women's Studies 231a**

Women in the Greek world. The experience of women in Greek archaic and classical periods (c. 700-300 B.C.) as seen through literature, philosophical and medical treatises, law codes, and the visual arts. The material will be considered within the context of current trends of approach (feminist, sociological, anthropological, literary). Weekly lecture and seminar. Open to students in the second quarter and beyond.

*J. Tinson*

**Classical Civilization-Women's Studies 232b**

Women in the Roman world. The role in society of Roman women in the late republican and imperial periods (100 B.C.-A.D. 300). Topics will include the status of women in Roman law, the Roman family, sexuality and motherhood

feminine religious cults, women in Roman literature. The material will be considered within the context of current trends of approach (feminist, sociological, anthropological, literary). Weekly lecture and seminar. Open to students in the second quarter and beyond.

*J. Tinson*

**Classical Civilization 390 or 395**

A reading or special-topic course in classical civilization. Open to students in the third and fourth quarter. Prerequisite: two courses in Classical Studies in translation, one of which must be at an upper-year level.

*Staff*

**Classical Civilization 490 or 495**

A reading or special topic course in classical civilization.

*Staff*

**Ancient Philosophy**

See the entry under *Philosophy 210*.

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## Comparative Development Studies

**Associate Professor and Chair of the Program**

R.D.Powell, LIC.EN HISTORIA (CORDOBA), PH.D. (MCGILL)

**Professors**

P. Bandyopadhyay, B.A. (Calcutta), M.A. (OXFORD, MANCHESTER), PH.D. (MANCHESTER); J. Hillman, M.A. (OXFORD), PH.D. (SUNY,BUFFALO); D.R. Morrison, M.A. (SASKATCHEWAN), D.PHIL (SUSSEX) (on leave 1994-95)

**Associate Professor**

C.V. Huxley, B.A. (YORK, ENGLAND), M.A. (SIMON FRASER), PH.D. (TORONTO)

**Assistant Professors**

J.Solway, B.A.(OAKLAND), M.A., PH.D. (TORONTO); W. Lem, M.A., PH.D. (TORONTO)

**Associated Faculty**

*Anthropology:* O.Roesch; *Economics:* S. Choudhry, K.S.R.Murthy; *Cultural Studies:* A. O'Connor; *Environmental and Resource Studies:* T. Whillans; *Geography:* J.S.Marsh; *Hispanic Studies:* T.Noriega; *History:* D. Sheinin, P. Zeleza; *Native Studies:* D.N. McCaskill; *Political Studies:* M.Gunther, E. Helleiner, M. Neufeld, A.Pickel.

**Honorary Professor**

L.A. Costa Pinto, LIC.SOC. (BRAZIL)

**Conjoint Professor**

B. Beck, B.A. (CHICAGO), B.LITT. (OXFORD),  
D.PHIL.(OXFORD)

The Program in Comparative Development Studies (CDS) involves the comparative examination of societies and cultures undergoing rapid change, and of the complex global relations between industrialized countries and the developing areas of Africa, Asia, the Caribbean, and Latin America. It is offered with the cooperation of the following Departments and Programs: Anthropology, Cultural Studies, Economics, Environmental and Resource Studies, Geography, History, Hispanic Studies, Native Studies, Political Studies, Sociology and Women's Studies.

Students are strongly encouraged to enrol in some cognate courses. *Economics 101a/b, 102a/b, Anthropology 100, Politics 100, and Sociology 100* are recommended. Students are also advised that some Program courses offered by participating departments carry prerequisites.

**Required Courses**

The single-major Honours program consists of nineteen courses. Minimum nine courses in Comparative Development Studies, including:

*CD 100*

*CD 200*

*CD-Economics 331a, 332b*

(prerequisite: *Economics 101a/b*  
and *102a/b*)

one of *CD 300, CD-Anthropology 301,*  
*CD-Anthropology 304, and*  
*CD-History 340*

*CD 400*

at least three other core courses, two of which must be at the *four-hundred* level.

Joint-major Honours program. Minimum seven courses in Comparative Development Studies, including:

*CD 100*

*CD 200*

one of *CD 300, CD-Anthropology 301,*  
*CD-Anthropology 304, and*  
*CD-History 340*

*CD 400*

at least one other course in the *four-hundred* series.

General joint-major. Minimum five core and support courses, including:

*CD 100*

*CD 200*

one of *CD 300, CD-Anthropology 301,*  
*CD-Anthropology 304, or*  
*CD-History 340*

**Notes:**

Only one support course can be counted towards the minimum requirements of each degree program. Courses from the student's other joint-major cannot be included among the minimum five courses for a General degree.

Anthropology students: Students undertaking joint-majors in Anthropology and Comparative Development Studies are advised that they may substitute *Anthropology-CD 221* for one of *Anthropology 212, 230 or 240* in their Anthropology requirements. Depending upon their area of interest, students are encouraged to enroll in French or Spanish language courses.

**Year Abroad Program**

This program is offered in Ibarra, Ecuador and is designed primarily for Comparative Development Studies and Anthropology majors. The program consists of the following courses:

*Spanish 201, Intermediate Spanish*

*CD 380, Community Development*

*CD 387, Introduction to Quechua*

*CD 388, Ecuador Seminar*

*CD-Anthropology 389\**, Andean

economy, society and culture

\*meets *three-hundred* level requirement for CDS majors.

*Spanish 100* and high academic standing is a prerequisite.

**Core Courses**

*Comparative Development 100*

Human inequality in global perspective.

An interdisciplinary introduction to the basic ideas and perspectives of development analysis including issues of population growth, food, transformation of rural life, gender, the environment, urbanization and industrialization.

The investigation of development and underdevelopment proceeds from comparative and historical perspectives with illustrations from widely differing societies.

*W. Lem and C. Huxley*

*Comparative Development 200*

Development analysis. An examination of the strengths and limitations of the major perspectives that have informed development studies. Consideration of selected monographs which address critical issues on the basis of well-defined models and sound empirical research.

*J. Solway*

*Comparative Development 250*

Technology and Development. (Not offered this year.)

*Comparative Development 300*  
South Asian development. An examination of the structure of agrarian production systems, role of land tenure and market relations in selected Asian societies. The process of social change from pre-capitalist, precolonial to colonial and contemporary institutions and the development of political and ideological movements will be analyzed. Two-hour lecture, seminar fortnightly. Prerequisite: *Comparative Development 200* or permission of instructor.  
*P. Bandyopadhyay*

*Comparative Development-Sociology 382*  
Historical sociology. (Not offered this year.)

*Comparative Development 385c*  
Field course. (Offered in alternate years but not this year.)

*Comparative Development 400*  
Modernity and Development. A study of the problems developing countries face in the passage from local or national traditions, cultures, and relations to modernity and global integration and hierarchy. This year the focus will be on indigenization and westernization with regard to industry, law and national institutional development in various regions. Prerequisite: *Comparative Development 300* series required course or permission of the instructor.  
*P. Bandyopadhyay*

*Comparative Development 421c*  
Assessment of development projects. An examination of techniques for analyzing and assessing projects for industrial, rural and social development, and of selected case studies. Case studies will include Canadian projects for development assistance in third world countries. Introductory lectures and weekly seminars. Prerequisite: *Comparative Development 300* series required course or permission of the instructor.  
*R.D. Powell*

*Comparative Development-Canadian Studies 460*  
Canada and the Third World. (Not offered this year.)

*Comparative Development-Sociology 470a*  
Religion and Social Movements. An examination of the religious movements within the Catholic tradition generated by social upheaval in contemporary Latin America, with particular attention given to new forms of religious organization, and theology, together with the revitalization

of popular religion. Weekly seminar. Prerequisite: *Comparative Development 200* or permission of the instructor.  
*J. Hillman*

*Comparative Development 475b*  
Perspectives on Ethnicity. (Not offered this year.)

*Comparative Development-Sociology 496b*  
Special Topic: Protestantism in Latin America and the Caribbean. An examination of the impact of Evangelical Protestantism, with particular attention given to the political consequences of the indigenization of Pentecostalism and millenarian movements such as Rastafarianism. Weekly seminar. Prerequisite: *Comparative Development 200* or permission of the instructor.  
*J. Hillman*

#### Other Core Courses

*Comparative Development-Anthropology 221*  
Development anthropology. (See Anthropology)

*Comparative Development-Sociology 280*  
Society and economy. (See Sociology)

*Comparative Development-Anthropology 301*  
Africa. (See Anthropology)

*Comparative Development-Anthropology 304*  
Latin America. (See Anthropology)

*Comparative Development-Economics 331a*  
Economics of developing countries. (See Economics)

*Comparative Development-Economics 332b*  
The international economics of development. (See Economics)

*Comparative Development-History 340*  
The emergence of modern Africa. (See History)

*Comparative Development-Economics 370a*  
Comparative economic systems and planning. (See Economics)

*Comparative Development-Native Studies 305*  
Native community development. (See Native Studies)

*Comparative Development-Women's Studies 325*  
Women and development. (See Women's Studies)

**Comparative Development-Environmental and Resource Studies 360**

Environment and development. (See Environmental and Resource Studies)

**Comparative Development 390, 391a, 392b**

Reading course in comparative development. Open only to students taking a major in Comparative Development Studies, and designed to provide an opportunity for specialized studies on selected topics. Periodic tutorials. Prerequisite: Permission of the Chair and the instructor concerned.

**Comparative Development-Cultural Studies 332**

Special Topic: Media and development. (See Cultural Studies)

**Comparative Development 402**

Honours thesis. A specific scholarly project on a well-defined topic for which double credit will be given.

**Comparative Development-Anthropology 407**

Politics, economy and culture. (See Anthropology)

**Comparative Development-Anthropology 424a**

Social movements and cultural change in Africa. (See Anthropology).

**Comparative Development-Politics 440**

Political economy and comparative politics. (See Political Studies)

**Comparative Development-Politics 450**

Problems of underdevelopment: building democracy. (See Political Studies)

**Comparative Development-Native Studies 482**

Indian responses to cultural interaction. (See Native Studies)

**Comparative Development 490, 491a, 492b**

Reading courses in comparative development open to students in the fourth quarter of the Honours program in Comparative Development Studies. Periodic tutorials. Prerequisite: Permission of the Chair and the instructor concerned.

**Support Courses**

*Economics 311a*: International trade

*Economics 312b*: International finance

*English 315*: Commonwealth fiction

*Geography 380b*: Regional economic development

*History-Anthropology 345*: Slavery in the Americas

*History 347*: Latin America

*History 444*: African labour history

*History 447*: Mexican history

*Native Studies 385b*: Program planning and evaluation research

*Politics 220*: International politics

*Politics 240*: Comparative politics

*Politics 320*: Conflict and cooperation in international relations

*Spanish 326*: Contemporary

Latin-American novel

**Computer Studies****Chair of the Program**

To be named.

**Professor**

J.W. Jury, M.Sc., Ph.D. (TORONTO) (on leave Winter Term 1995)

**Associate Professors**

S.B. Regoczei, M.Sc. (TORONTO); M.J.

Tamplin, B.A. (TORONTO), M.A. (LONDON),

Ph.D. (ARIZONA) (on leave Fall Term 1994)

**Assistant Professor**

R.T. Hurlley, B.Sc. (NEW BRUNSWICK), Ph.D. (WATERLOO)

**Associated Faculty**

*Geography*, J.G. Cogley; *Mathematics*,

D.G. Poole, E.A. Maxwell; *Philosophy*,

B. Hodgson, R.M. Neumann

**Laboratory Demonstrator**

M.E. Soper, B.A. (WESTERN ONTARIO), B.Sc. (TRENT)

The Program offers study of computers and their application from a generalist, humanist and liberal arts point of view. It combines courses in computer science with courses in mathematics, philosophy and social and behavioral studies. The intent is to provide students with a sound basis in computer studies along with a comprehensive education in areas where the application of computer technology is having a major influence. To meet these goals, many courses in the program deal with advanced technical material from a humanist perspective. Students in the Program pursue General or Honours Joint-major Degrees by combining core and cross-listed Computer Studies with courses in another area of study, either in the arts or the sciences.

**Required Courses**

Joint-major Honours program. Minimum of eight courses in Computer Studies of which at least five must be core courses and include:

*Computer Studies 102b, 202a and 203b, 300b or 301a, 330, and 400.*

At least two courses must be at the four-hundred level. Joint-major Honours in Science requires a minimum of 20 courses. Joint-major Arts requires a minimum of 19.5 courses. Commencing in the 1995-96 academic year, at least one university-level mathematics credit (i.e. one of *Mathematics 110, 130 or 150* or a course in another discipline with an equivalent mathematics content).

Joint-major General program. Minimum five courses in Computer Studies including *Computer Studies 102b, Computer Studies 202a, Computer Studies 203b* and three and a half other courses in Computer Studies, at least two of which must be core courses. At least two core courses or cross-listed courses must be at the third year level.

#### Notes:

1. Only one of the half courses *Computer Studies 102b* or *Computer Studies 150b* may be taken by students in their first quarter of study.
2. In order to be eligible to graduate with a B.Sc. degree, a student must have completed an Ontario Academic course in Mathematics, or equivalent, or a university level Mathematics course.

#### Core Courses

##### *Computer Studies 101a*

Introduction to computer science with applications. This course provides students with a general knowledge of the important principles in computer science and hands-on experience with some modern applications. Topics to be covered include the impact of computers on society, history of computing, computer organization, data communications, operating systems, and modern applications, such as word processing, spreadsheets and database management systems. No prerequisite. Two lectures weekly, periodic workshops. (Excludes *Computer Studies 100*)

*J.W. Jury and staff*

##### *Computer Studies 102b*

Introduction to software engineering with Pascal. This course is the introductory programming course for Computer Studies majors. Students will learn how to design, test, and debug computer programs using the Pascal programming language. Topics to be covered include a general discussion of programming

languages, algorithm design, program testing, program debugging, introductory data structures. This course is a prerequisite for most higher-level Computer Studies courses. Prerequisite: *Computer Studies 101a* or equivalent. Two lectures weekly, periodic workshops. (Excludes *Computer Studies 100*)

*R.T. Hurley and staff*

##### *Computer Studies 150b*

Introduction to programming in BASIC. This course is intended for non-Computer Studies majors who wish to become familiar with the "art of programming". Topics include a general discussion of programming languages, software design and data structures, program construction and algorithm design using the BASIC programming language. Concepts such as string manipulation, arrays, procedures, functions, files and records will be discussed. Advanced topics such as simulation and graphics will be covered. Prerequisite: *Computer Studies 101a* or equivalent. Two lectures weekly, periodic workshops. (Excludes *Computer Studies 100*)

##### *Computer Studies 202a*

Intermediate computer science. Program and system design, review of advanced features of PASCAL programming, operating systems, libraries applications including simulation, data structures such as queues, stacks and trees. Sorting and searching. Prerequisites: *Computer Studies 101a* and *Computer Studies 102b* or equivalent. Two lectures weekly. Periodic workshops in place of one of the lectures.

*J.W. Jury and staff*

##### *Computer Studies 203b*

Data processing and file structures. Introduction to file structures and processing. Use of COBOL for data processing, including use of advanced language features and modular software engineering techniques. Efficiency in data management. Prerequisites: *Computer Studies 101a* and *102b* (formerly *Computer Studies 100*) or equivalent. Double lecture weekly plus periodic workshops.

##### *Computer Studies 210*

Computing in the social sciences and humanities. A survey of research problems, methods and data in the humanities and social sciences with particular emphasis on computer-based techniques of analysis. It is intended both as an introduction to research problems

not usually encountered by computer science students with mathematics and science backgrounds and for non-majors who wish to use computers for research in their disciplines. Prerequisites: *Computer Studies 101a* and *102b* or *150b* (formerly *Computer Studies 100*) or equivalent. Two lectures and one one-hour laboratory weekly.

*M.J. Tamplin and staff*

#### *Computer Studies 220b*

Information systems in organizations. Management information systems, including decision support and expert systems in organizations. Introduction to end user computing, systems analysis, software development, and office automation. Systems in the organizational context. Major hardware, software, and communications technologies employed in data processing and applications. Prerequisite: *Computer Studies 102b* or *150b* (formerly *Computer Studies 100*) or equivalent. Two lectures weekly.

*S.B. Regoczei*

#### *Computer Studies 300b*

Advanced data structures and algorithms. This course is designed to familiarize the student with the concept of data structures in a language-independent setting. The student will be introduced to abstract data types such as lists, stacks, queues, trees, dictionaries, and graphs. Advanced algorithmic design techniques such as recursion, divide-and-conquer, and dynamic programming are also discussed. Prerequisite: *Computer Studies 101a* and *102b*. Two lectures and one tutorial weekly.

*S.B. Regoczei*

#### *Computer Studies 301a*

Scientific programming techniques. Structured programming and logic flow. Design of effective algorithms for scientific application. Languages for scientific computing, Pascal and C. Modular programming and library usage; object-oriented programming; documentation; correctness; optimization; antialiasing and debugging techniques. Prerequisite: *Computer Studies 202a*; *Mathematics 100* or *110* or *130*, or permission of instructor. Two lectures weekly.

*J.W. Jury*

#### *Computer Studies 320*

Societal impact of computer technology. This course deals with the impact of computers on society and is presented at an advanced level by experts from a

variety of disciplines. Topics covered will be chosen from the following: historical impact of computers and automated technology; ethical, legal and privacy issues of computerized information storage and flow; computers in policy formation and decision making; robotics and automation theory; progress towards artificial intelligence; image processing and pattern recognition. Prerequisites: *Computer Studies 101a* and *102b* or *150b* (formerly *Computer Studies 100*) or equivalent. Two lectures weekly, seminar fortnightly.

#### *Computer Studies 330*

Computer organization. This course begins with an investigation of digital logic where topics such as boolean algebra, sequential logic, and circuit design are discussed. Computer architecture is addressed next concentrating on issues such as busing, main memory, secondary memory, the central processing unit, and I/O organization. Finally, assembly language programming will be covered. Prerequisite: *Computer Studies 202a* or *203b*, or permission of the instructor. Two lectures and one tutorial weekly.

*R.T. Hurley*

#### *Computer Studies 340b*

Data base structures. Data base systems and their use in the management of data. History and development of data base theory. Hierarchical, network and relational data base structures. Prerequisite: *Computer Studies 203b*. Two lectures weekly.

*S. Regoczei*

#### *Computer Studies 350*

Artificial intelligence. Foundations, directions and applications of artificial intelligence. Knowledge acquisition, representation and processing, knowledge bases and rule-based systems. Issues and techniques will be addressed primarily through expert systems. Vision systems, natural language processing, machine learning, applications in knowledge-based fields and industry. Prerequisite: *Computer Studies 202a* or *203b* or permission of the instructor. Two lectures weekly.

#### *Computer Studies 390, 391a, 392b*

Reading course dealing with advanced topics in computer studies chosen in consultation with supervising faculty members in Computer Studies. Prerequisite: permission of the Program.

**Computer Studies 400**

Software engineering project. Follows software development through a normal life cycle, within a general project management framework. Starting with requirements analysis and feasibility studies, it discusses systems and information analysis, software architecture, conceptual data base design and improved programming techniques and concludes with software installation, testing, system maintenance and impact assessment. Prerequisite: *Computer Studies 301a* or *300b*; *Computer Studies 340b* recommended. Two lectures weekly. Staff

**Computer Studies 410**

Computer languages. Addresses programming languages and their structures as intellectual objects. From an assumed base of BASIC, FORTRAN, COBOL, C and Pascal, the course discusses general language design goals, data and control abstractions and structures. It progresses through lower level assemblers to higher block structured languages (Ada), special purpose languages (such as Modula, FORTH, LISP) to concepts of verifiable and applicative languages, large programs, predicative programming and program transformation. The future of programming languages is discussed. Prerequisite: *Computer Studies 300b* or *301a*. Two lectures weekly. Periodic workshops.

**Computer Studies 430**

Advanced operating systems. This course examines the issues and concepts of computer operating systems. The first half of the course examines the traditional centralized operating system. Topics dealing with the management of processors, file systems, processes, and memory will be covered. The second half of the course examines the distributed system. Topics such as networking, remote procedure calls, concurrency control, and resource management will be discussed. This course includes studies of specific centralized and distributed operating systems (such as VMS and UNIX). Prerequisite: *Computer Studies 330* or permission of the instructor. Two lectures and one tutorial weekly.

R.T. Hurley

**Computer Studies 490, 491a, 492b**

Advanced reading course. Prerequisite: permission of the Program.

**Cross-listed Courses**

*Computer Studies-Philosophy 240a*  
Symbolic logic. (See Philosophy)

*Computer Studies-Mathematics 260*  
Discrete structures. (See Mathematics)

*Computer Studies-Mathematics 341*  
Linear and discrete optimization. (See Mathematics)

*Computer Studies-Philosophy 341b*  
Logic and logical theories. (See Philosophy)

*Computer Studies-Mathematics-Statistics 351*  
Linear statistical models. (See Mathematics)

*Computer Studies-Geography 405b*  
Geographical computer graphics. (See Geography)

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**Cultural Studies****Assistant Professor and Chair of the Program**

V. Hollinger, M.A. (CONCORDIA), M. ED. (NEWCASTLE-UPON-TYNE)

**Professor Emeritus**

D.F. Theall, B.A. (YALE), M.A., PH.D. (TORONTO)

**Professors**

J. Fekete, M.A. (MCGILL), PH.D. (CAMBRIDGE); S. Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); I. McLachlan, M.A. (OXFORD) (on leave Winter Term 1995); D. Smith, M.A., D.PHIL. (OXFORD) (on leave); A. Wernick, M.A. (CAMBRIDGE, TORONTO)

**Associate Professors**

Z. Baross, B.A. (U.B.C.), M.A. (LONDON), PH.D. (AMSTERDAM); J. Bordo, B.A. (MCGILL, ALBERTA), M.A., M.PHIL., PH.D. (YALE); A. O'Connor, B.A. (TRINITY COLLEGE, DUBLIN), M.A., PH.D. (YORK)

**Lecturer**

R. Green, B.A. (WESTERN ONTARIO), M.A. (MCMASTER, TORONTO)

**Adjunct Faculty**

M. Blyth, B.A. (TORONTO) M.A. (YORK); M. de Guerre, A.O.C.A. (ONTARIO COLLEGE OF ART); V. de Zwaan, B.A. (TRENT), M.A. (MCGILL); M. el Komos, M.A. (CAIRO); W. Ramp, M.A., PH.D. (YORK); R. Wright, B.A. (TRENT), M.A., PH.D. (QUEEN'S)

**Associated Faculty**

*English Literature*, R. Dellamora



The Program offers study in the nature and criticism of culture and the arts, chiefly literature, film, drama, music and the visual arts, in the light of guided interdisciplinary enquiry into the social conditions in which thought and expression take shape. The Program as a whole provides the kind of academic experience which may have pre-professional value to a cultural and social critic or to a teacher of literature, drama or the arts who wishes to emphasize workshop experience in future teaching. This focus of practical and speculative needs is realized in courses whose overall concern is for the way in which theoretical understandings inform as they are informed by actual practice by artists, critics and thinkers in different conditions. The focus is preserved on the level of term-work in that actual production experience or critical work in cultural activity is recommended as a way of sustaining a reflection on cultural problems and conditions in Canada and elsewhere.

The *one-hundred* series course is the normal entry point to the Program for first-year students and should normally be taken by all students who are, or who are preparing to be, Cultural Studies majors or joint-majors. First-year students who also wish to take, in exceptional circumstances, a second Cultural Studies course, must obtain written permission from both the course instructor and the Chair of the Program. First-year students who may wish to major or joint-major in Cultural Studies are urged to take one or more of the following courses as well: *Classical Literature 100*, *English 105* or *115*, *History 120*, *Philosophy 101*, *Sociology 100*, and any of the first-year language courses in the department of Modern Languages and Literatures.

*Two-hundred* and *three-hundred* series courses are grouped into two categories:

(a) 205, 225, 235, 245, 250, 305, 322, 325, 350, 356, 370 and

(b) 211, 216, 222, 226, 229, 260, 270, 280, 311, 315, 321, 329, 332, 345, 346, 375, 380, 381, 385, 395.

Cultural Studies majors are required to choose at least two courses from each category. In so doing they may pursue a particular concentration within the different cultural areas that the Program draws together (e.g., Comparative Literature; Fine Arts; Performing Arts; Social and Cultural Theory).

### Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Cultural Studies including *Cultural Studies 100*, at least two from category (a), at least two from category (b), and at least two Cultural Studies courses at the *four-hundred* series level.

Joint-major Honours program. Minimum seven courses in Cultural Studies including *Cultural Studies 100*, at least two from category (a), at least two from category (b), and at least two Cultural Studies courses at the *four-hundred* series level.

Single-major General program. Minimum six courses in Cultural Studies including *Cultural Studies 100*, at least two from category (a) and at least two from category (b).

Joint-major General program. Minimum five courses in Cultural Studies. Same requirements as for single-majors.

### Special Provisos

*Two-hundred* and *three-hundred* series courses: Any *two-* or *three-hundred* series course is open to any upper-year student, subject only to the conditions specified below under the descriptions of certain individual courses.

*Four-hundred* series courses are normally limited to students in the fourth quarter of Honours Cultural Studies. However, students may petition the Program to enrol in a *four-hundred* series course as part of a General program. Students wishing to take more than one *Cultural Studies 490* reading course must petition the Chair of the Program. The fourth quarter of the Honours program will normally consist of four courses.

### *Cultural Studies 100*

Introduction to the study of modern culture. Introduction to the interpretation and foundations of modern culture. Looks at the problem of how to make sense of art works and other forms of cultural expression, in different media, both as texts and as practices in a context. A major focus will be on what distinguishes twentieth-century culture from, and what connects it to, the tradition of modern culture as a whole. Two lectures and seminar, weekly. Field trips fee: \$40. (Excludes *Cultural Studies 200*.) (May also be offered Summer 1994.)

J. Bordo, R. Green, I. McLachlan, and staff

*Cultural Studies 205*

Nineteenth century comparative arts. (Not offered this year.)

*Cultural Studies 211*

Drawing. (Not offered this year.)

*Cultural Studies 216*

Western art, the monument and modernity. An introduction to the history and theory of mostly Western art, architecture, collections, deposits and other traces. While the course will explore such familiar and typical monumental sites as the Cave, the Greek Temple, the Cathedral and the modern Palace, its main ambition is to account for the extraordinary emergence of picturing in Renaissance art and science and how this kind of picturing became the predominant mode of cultural transmission inseparable from and defining a cultural condition called "modernity". Special attention shall be given in 94-95 to the Northern Renaissance altarpiece; pictures and the birth of the gallery; collecting and the birth of the museum; Versailles and portraiture. Thrice monthly lectures with tutorials; field trips to museums, galleries and other relevant cultural sites. Field trip fee: \$40.

*Cultural Studies 222*

Culture in the novel. (Not offered this year.)

*Cultural Studies 225*

Oral narrative. The world of story and memory. An exploration of myth as the pattern-knowledge of aboriginal ecology; its domestication by literacy; the folk wonder tale and the literary forms that usurp its voice and vision. Concerned with the relationship between told and written narrative, the course involves practical experience in the telling, writing, and evaluation of story. Two hours weekly. (May also be offered in Oshawa Summer 1994).

*S. Kane*

*Cultural Studies 226*

Storytelling workshop. (Not offered this year.)

*Cultural Studies-English 229*

Science fiction. Introduction to the history, theory, and representative works and authors of science fiction from Mary Shelley and H.G. Wells to Philip Dick, Ursula Le Guin, and Marge Piercy in the present. Such types of science fiction as alternate worlds, human destiny stories, space adventure, stories of alien encounter

and non-contemporary earth life, and stories of new capacities, new technologies, or new belief systems will be examined. Two hours weekly. (May also be offered Summer 1994.)

*J. Fekete and staff*

*Cultural Studies 235*

Mass media and society. Introduction to the history, sociology and critical interpretation of contemporary mass communicated culture, both as an overall formation and with reference to such specific elements as the newspaper press, advertising, network TV and recorded popular music. Two-hour lecture and seminar weekly. (Excludes *Cultural Studies-Sociology 240.*)

*A. O'Connor and staff*

*Cultural Studies 245*

Music and Society. An introduction to music as a cultural practice. The course will explore various formulations of the relationship between music and society that have been offered by the areas of ethnomusicology, sociology, semiotics, and feminist theory. An emphasis will be placed on the development of listening skills through engaging directly with a variety of musical texts and practices from Western art music, popular music, and world music traditions. Assignments will include both creative projects and critical work. No formal background in music is required. Lecture and seminar weekly.

*R. Green*

*Cultural Studies 246*

Music in the nineteenth century. (Not offered this year.)

*Cultural Studies 250*

Civilization and human nature. An introduction to the thought of several of the founders of modern social and cultural theory including Marx, Nietzsche and Freud. Such topics explored as ideology and illusion, reason and eros, individualism and alienation, and the idea of progress. One hour lecture, seminar weekly.

*A. Wernick*

*Cultural Studies 260*

The making of the modern body. The course focuses upon modernity's relation to the body as a project and a work site, and examines contemporary obsessions as an expression and experience of (post) modern subjectivity. Diverse cultural and theoretical materials explore the burgeoning of body-images that exercise contemporary cultural imagination in

cinema, painting, fiction and the media. An examination of the social production of bodies and the inscription of identities and shifting body/gender relations. Writers in feminist criticism, film theory, psychoanalysis and social theory will explore the modern body as a site of power (relations), desire, signification, subjection and subjectification. Two-hour lecture and one-hour seminar weekly.  
Z. Baross

*Cultural Studies 270*

History and theory of theatre. An introduction to theatre as a performing art. Examines the evolution of European theatrical practice and dramatic theory from Classical Greek tragedy to late nineteenth century naturalist drama. Topics include acting styles, theatre design and architecture, the changing relationships among playwrights, performers and spectators, and the institution of theatre in relation to religion, morality and politics. Two hours weekly.  
V. Hollinger

*Cultural Studies 280*

History and theory of the cinema. An introduction to critical interest in the cinema: the medium, the spectator, ideology, apparatus, pleasure and meaning. Lectures and seminars reflect upon the question of origin and relation to other arts (television and photography) and follow the evolution of cinematic language and narrative strategies from silent film (Griffith, Eisenstein) to classical Hollywood, from (early) experimental to (modern) European film. A selection of critical writings (Barthes, Cavell, Eisenstein) brings Andre Bazin's question, "What is cinema?" into a new focus. Weekly films, lectures and seminars. (May also be offered Summer 1994.)

*Staff*

*Cultural Studies 305*

Politics and culture. (Not offered this year.)

*Cultural Studies 311*

Visual arts studio: form, process, object (and image). An introduction to the relationship between traditional ideas of form and dynamic process-oriented strategies in two and three dimensions. These studies are related to contemporary developments in non-objective art, with incursions into the question of image. Emphasis on the free exploration of materials and concepts; the alternative directions and implications of any given

problem; the questions of scale and 'richness'; the development of active creative strategies. Open to Cultural Studies majors, and students with the pre- or co-requisite *Cultural Studies 216, 305, or 315* or permission of the Chair of the Program. Enrolment limited to 20. Art materials fee: \$65.00.

*Staff*

*Cultural Studies 315*

History and theory of modern art. (Not offered this year)

*Cultural Studies-English 321*

Literature and society. (See English Literature)

*Cultural Studies 322*

Experimental fiction. A course in the work of some of the major twentieth-century writers of experimental fiction, ranging from Proust, Joyce and Kafka to Pynchon and Borges. Individual works will be related to various theories of narrative which seek to explain and contextualize them. Weekly lectures and seminars. (May also be offered Summer 1994.)

*Staff*

*Cultural Studies 325*

Literary and critical theory. A study of ideas about the nature and function of literature, interpretation, and evaluation. The spectacle and background of competing contemporary theoretical models will be considered through such figures as Plato and Aristotle, Sidney, Coleridge and Arnold, Frye and McLuhan, Lukacs and Adorno, Barthes, Derrida and Foucault, Kristeva and Spivak. Two-hour seminar weekly.  
J. Fekete

*Cultural Studies-English 329*

Utopia (Future fiction.) (Not offered this year.)

*Cultural Studies-Comparative Development Studies 332*

Media and development. Covers different approaches to communication and development especially in the 'Third World'. Topics include debates about cultural imperialism, Third World film-making, community radio, women's media and the role of communication and popular culture in struggles for democracy. Three-hour seminar weekly.  
A. O'Connor

*Cultural Studies 345*

Music in twentieth-century industrial society. (Not offered this year.)

*Cultural Studies 346*

Music workshop. Pre- or co-requisite: *Cultural Studies 345*. (Not offered this year.)

*Cultural Studies-Sociology 350*

Modern cultural theory. The crisis of modern critical discourse. The course examines how two distinct traditions in contemporary thought, critical theory of the Frankfurt School and post-structuralism, theorize the crisis of modernity. In and through a close reading of works by Habermas, Adorno, Horkheimer, Foucault, and Baudrillard, the course reflects on conceptions of knowledge and error, truth and power, ideology and emancipation, language and subjectivity. Recommended: *Cultural Studies 100* or *250*. Lectures and seminars weekly.

Z. Baross

*Cultural Studies-Canadian Studies 356*

(Post) modernity and the sublime. An exploration of the idea of the sublime from its early modern and American Renaissance resurgence to (post) modernist refigurings. Philosophical, religious and literary sources will be drawn upon with particular intertextual reference to visual art and with special attention to Northern landscape art and modern art. A problematic of the wilderness symbolic will be the unifying thread in the treatment of such concerns as the picturesque and the rhetoric of experience; allegory and representation; modern technology, ethics and "limit experience"; art and especially modern art as the transgression of the presentable. Two lectures monthly, one seminar and one study group.

J. Bordo

*Cultural Studies 370*

Theatre in the twentieth century. Investigates the changing roles of playwright, performer and director in the modern theatre. The innovations and experiments of Stanislavski and Brecht, Artaud, Brook and Beckett will be explored. Students will be expected to attend a number of theatrical performances. Seminar weekly. Field trip fee: \$45. (May also be offered in Summer 1994.)

I. McLachlan and staff

*Cultural Studies 375*

Theatre workshop: staging ideas. A practical course in modern acting with a focus on methods of performance in works that dramatize ideas and the

conflicts between them. Pre- or co-requisite: *Cultural Studies 270* or *370* or permission of the Chair of the Program. Workshop fee: \$50. Enrolment limited to 20. Four hours weekly.

I. McLachlan

*Cultural Studies-English 380*

Narrative literature and film. (Not offered this year.)

*Cultural Studies 381*

European film. Introduction to the study of European film in historical and aesthetic context through an examination of major directors, tendencies and schools. Weekly lectures, films, and seminars.

Staff

*Cultural Studies 385*

Film workshop. Pre- or co-requisite: *Cultural Studies 280* or *Cultural Studies 381*. Workshop fee: \$50. (Not offered this year.) (May be offered Summer 1994.)

*Cultural Studies 395*

Special topics in cultural studies. The following special topic will be offered in 1994-95:

*Cultural Studies 395.1*

Advanced music and society. The relationship of music and drama will be explored through a consideration of opera both as a historical performance tradition and as it participates in contemporary cultural life in the opera house, in film, and television. Issues such as the relationship of music to text, the role of the singer, representation of gender, and socio-political aspects of the performance will be examined in works by Mozart, Wagner, Puccini, and others. Weekly lectures and seminars. Field trip fee: \$45.

R. Green

*Cultural Studies 402*

Honours thesis. A double-credit course for which double fee is charged, in which instruction in research methods leads to a thesis of about 15,000 words. The Program deadline for a thesis abstract and bibliography (signed by the thesis supervisor) is May 31, of the year prior to the entry to the fourth quarter of the Honours program.

*Cultural Studies-English 425*

Advanced studies in literary and critical theory. Topic for 1994-95: A study of ideas about the nature and function of literature, criticism, and theory. These ideas are considered in historical sequence, from Greek mimesis to

contemporary post-modernism, intertextualism, and pragmatism, with a central focus on the emergence and decline of modernist Anglo-American theories of literary and imaginative autonomy. Such theoretical models will be examined as Plato and Aristotle, Coleridge, Arnold and Pater, Eliot, Richards, Frye and McLuhan, Fish and Tompkins, Barthes and Foucault, and a selection of feminist writers. Two-hour lecture-seminar weekly. (Excludes *Cultural Studies-English 325*)  
*J. Fekete*

#### *Cultural Studies 435*

Advanced topics in mass media and popular culture. Topic for 1994-95: Urban popular movements and avant-garde media. The course deals with issues of cultural identity and 'underground' media in the modern metropolis. It gives an overview of issues of identity politics (race, gender, sexual orientation) and explores the expression of such movements in forms such as punk and gr1 riot, fanzines and non-commercial video. Materials may be from the metropolitan underground in London, New York, Toronto, Los Angeles and Mexico City. Two-hour seminar weekly.  
*A. O'Connor*

#### *Cultural Studies-Sociology 440*

Special topics in the sociology of culture and knowledge. (See Sociology)

#### *Cultural Studies 450*

Current issues in cultural theory. Focuses on the concept of postmodernism and the issues surrounding the way this term (and its compounds) has been deployed as a way to characterize contemporary theory, culture, and society. Explores what is meant by a break from the modern. In the light of this question, and by reflecting on key statements by Lyotard, Rorty, Jameson, Baudrillard, Jencks and others, considers such topics as the postmodern turn in architecture, the rise of deconstruction and ironic modes of theorizing, and the cultural centrality of television. Two hour seminars weekly.  
*Z. Baross*

#### *Cultural Studies 470*

Advanced studies in theatre and the performing arts. The course will concentrate on some of the experimental directions in theatre in the last twenty years, focusing especially on movements that attempt to find a voice for those who have been marginalized within the traditional theatre hierarchies. In the

process, attention will be paid to feminist, gay and lesbian and (post) colonial theories of subjectivity and narrative.  
*Staff*

#### *Cultural Studies 495*

Special topics in cultural studies. The following Special topics will be offered in 1994-95:

##### *Cultural Studies 4951*

Special topic: Advanced studies in oral narrative. An enquiry into the dialogue with the environment that was entrusted to the mythtellers (mainly Australian Aborigine, Native American, Celtic, and ancient Greek). A reflection on the persistence of oral wisdom in literary form (mainly the Bible, the writings of the Chinese and pre-Socratic sages, the European wonder tale). Issues raised by the study of oral narrative and tradition: the philosophy of pattern, the theory of orality and literacy, the politics of expropriation, the epistemology of the sacred. Two hours weekly. Note: admission by interview with the instructor.  
*Sean Kane*

##### *Cultural Studies 4952*

Special topic: The religious dimension of postmodern theory. This course will focus on the religious dimension of 'postmodern' theory and culture, with reliance on such texts as Harold Bloom's 'The American Religion', Bataille's 'Theory of Religion', Baudrillard's 'Transparency of Evil', Mark Taylor's 'Erring' and Derrida's 'Of Spirit', Wyschogrod's 'Spirit in Ashes' and Gillian Rose's 'Broken Middle' as well as others.  
*A. Wernick*

##### *Cultural Studies-English 4953*

Special topic: Theories of Subjectivity. (See English Literature.)  
*R. Dellamora*

For more information about these and other special topics courses, students should attend the Honours Information Session in the Spring or visit the Program Office.

#### **Reading Courses**

Reading courses are available as *Cultural Studies 390* or *490*. Registration in reading courses is contingent on permission of the instructor and the Chair of the Program in advance of early registration. The deadline for submission of an outline is May 31.

## Economics

*Professor and Chair of the Department*  
H.M. Kitchen, M.A. (MCMASTER) (on leave  
Winter Term, 1995)

*Professor Emeritus*  
M.J. Boote, B.A. (WALES), PH.D. (MCGILL)

*Professors*  
D.C.A. Curtis, M.A. (QUEEN'S), PH.D.  
(MCGILL); K.S.R. Murthy, B.SC. (ANDHRA),  
M.SC. (KARNATAK), M.A. (DELHI, WESTERN  
ONTARIO), PH.D. (WESTERN ONTARIO) (on  
leave Winter Term, 1995)

*Associate Professors*  
M. Arvin, B.SC. (LONDON), M.PHIL.  
(OXFORD), PH.D. (QUEEN'S); T. Drewes,  
B.A. (LAKEHEAD), M.A., PH.D. (QUEEN'S);  
M. Huberman, B.A. (MCGILL), M.A., PH.D.  
(TORONTO); J. Muldoon, B.SC. (BROCK),  
M.A. (GUELPH), PH.D. (MCMASTER); P. Wylie,  
B.SC. (QUEEN'S, BELFAST), M.A., PH.D.  
(QUEEN'S)

*Assistant Professors*  
S. Choudhry, M.A. (MCGILL), PH.D.  
(MANITOBA); B. Leith, B.A. (WESTERN),  
M.A., PH.D. (YORK)

*Conjunct Professor*  
D. Auld, B.A. (WESTERN) M.A. (TORONTO),  
PH.D. (A.N.U.)

**Note:**  
*Economics 101a/b* and *102a/b* are prerequisites for all other courses in Economics. A standing of C- (60%) or higher is required in *Economics 101a/b* and *102a/b* for registration in upper year Economics courses. With the exception of *Economics-Administration 225a* and *Economics-Administration 220b*, two-hundred series courses in Economics are accepted as three-hundred level courses to meet the University requirements of a minimum number of three-hundred series courses.

It is strongly recommended for single-majors, that *Economics 320a* and *Economics 325a*, and for joint-majors, that *Economics-Administration 225a* and *Economics-Administration 220b* be completed before students enter their fourth quarter.

### Required Courses

The single-major Honours program consists of twenty courses. Minimum ten courses in Economics, including:

<i>Economics</i>	<i>101a/b</i>	<i>102a/b</i>
	200	201
	220b*	225a*
	320a	325a
	400a/b	401
	405a/b	

plus one other four-hundred series Economics course. Or, one full course equivalent from the three-hundred series, approved by the Department, may be substituted in the fourth quarter of an Honours program.

Joint-major Honours program. Minimum seven and one-half courses in Economics, including:

<i>Economics</i>	<i>101a/b</i>	<i>102a/b</i>
	200	201
	220b*	225a*
	400a/b	401
	405a/b	

plus a further one-half four-hundred series Economics course. Or, one half course equivalent from the three-hundred series, approved by the Department, may be substituted in the fourth quarter of an Honours program.

Single-major General program. Minimum six courses in Economics, including:

<i>Economics</i>	<i>101a/b</i>	<i>102a/b</i>
	200	201
	220b*	225a*

Joint-major General program. Minimum five courses in Economics, including:

<i>Economics</i>	<i>101a/b</i>	<i>102a/b</i>
	200	201

\*indicates that courses of equivalent content can be substituted for *Economics-Administration 225a/220b*. This will be determined by the Department Chair.

### Note:

In order to be eligible to graduate with a B.Sc. degree, a student must have completed an Ontario Academic course in Mathematics, or equivalent, or a university level Mathematics course.

For students majoring in Economics, *Economics-Administration 225a* and *Economics-Administration 220b* fulfill the Mathematics requirement for the B.Sc. Degree.

*Economics 101a/b*  
Introductory Microeconomics. An introductory treatment of markets, prices and outputs based on the behaviour of consumers, business firms and the structure and organization of industries. Competition policy and tax policy are examined. Selected aspects of international markets, trade and trade policy are also considered. Lectures three hours weekly, workshop fortnightly.

H. Kitchen and staff

*Economics 102a/b*

## Introductory Macroeconomics.

An introductory treatment of gross domestic product, employment, unemployment, prices and inflation based on current models of national income determination. The Canadian banking system, monetary policy, the role of government and fiscal policy are examined. Selected aspects of international trade, the balance of payments and exchange rates are included. Lectures three hours weekly, workshop fortnightly.

*D. Curtis and staff*

*Economics 200*

Microeconomic theory and its applications. An examination of problems of demand and supply, market equilibrium, market structure, income distribution and economic welfare. A comprehensive treatment of the theoretical techniques used to deal with problems of resource allocation and applications of those techniques. Develops skills necessary for advanced work in economics. Two lectures weekly, seminar fortnightly.

*J. Muldoon*

*Economics 201*

## Macroeconomic Theory and Policy.

A study of output (GDP), employment, unemployment and inflation, and the role of monetary, fiscal and exchange rate policies, using current models of national income determination. Debates about the structure and behaviour of the economy and the design and effectiveness of policy are examined. Two lectures weekly, workshop fortnightly.

*D. Curtis*

*Economics-Administration 220b*

Introduction to statistics for economics and management. This course introduces students to the theory of probability and statistics. The emphasis in the course is on the way in which statistical methods are used in analyzing a wide variety of problems and the relationship between numerical conjecture and probability theory. The material covered includes descriptive statistics and data analysis; statistical inference and estimation; and regression techniques. Prerequisite: *Economics-Administration 225a*. Three lectures weekly, workshop fortnightly.

*T. Drewes*

*Economics-Administration 225a*

Introduction to mathematics for economics and management. Topics include partial and general equilibrium, elementary linear algebra, elementary calculus, basic optimization theory, and comparative static analysis. These tools are integrated with and applied to micro and macroeconomic theory and managerial economics. Three lectures weekly, workshop fortnightly.

*J. Muldoon*

*Economics-Canadian Studies 260a/b*

Canadian economic development. (Not offered this year.)

*Economics-Canadian Studies 261a*

The Canadian economy. Problems and policies in Canadian development since 1929. Models of income growth and depression/ recession, government policy on trade, foreign investment, macroeconomic stabilization and social welfare, and the economics of federal-provincial relations. Two lectures weekly, seminar fortnightly.

*P. Wylie*

*Economics 301b*

Monetary theory. Theories of demand and supply for money, simple keynesianism versus early monetarism, later monetarism, money and inflation, money and the balance of payments, the new classical macroeconomics. Prerequisite: *Economics 201* or permission of the instructor. Two lectures weekly, seminar fortnightly.

*S. Choudhry*

*Economics 302a/b*

Monetary institutions and policy. (Not offered this year.)

*Economics 311a*

International trade. Theories of world trade and the analysis of trade policy and trade relationships in the world economy. The theory and practice of protectionism and preferential trade arrangements (trade blocs). The role of multinational corporations in international trade and investment. Two lectures weekly, seminar fortnightly. (Support course for Comparative Development Studies).

*P. Wylie*

*Economics 312b*

International finance. The operation of international money and capital markets and theoretical and policy aspects of exchange rates and the balance of international payments. Macro-economic management of domestic open economies

and the world economy, and the evolution, management and reform of the international financial system. Two lectures weekly, seminar fortnightly. (Support course for Comparative Development Studies).

*P. Wylie*

*Economics 316a*

Government expenditure analysis. Efficiency criteria will be emphasized in the analysis of public goods, externalities, natural monopolies, cost-benefit analysis, voting behaviour and the structure and growth of government expenditures in Canada. Two lectures weekly, seminar fortnightly. (Will not be offered in 1995-96.)

*H. Kitchen*

*Economics 317a/b*

Canadian tax policy. (Not offered this year but will be offered in 1995-96.)

*Economics 320a*

Econometrics. Simple and multiple regression models. Problems of estimation and testing of economic relationships under conditions of autocorrelation, errors in variables, etc. Regression diagnostics and introduction to distributed lags and simultaneous equations. Prerequisite:

*Economics-Administration 225a, 220b* (or equivalents). Pre/corequisites: *Economics 200, 201*, or permission of the instructor. Two lectures, seminar weekly.

*K.R. Murthy*

*Economics 321a/b*

Applied econometrics. (Not offered this year.)

*Economics 325a*

Mathematical Economics and Economic Models. A continuation of *Economics-Administration 225a*. Mathematical techniques used to set and solve problems. Topics include comparative static analysis under specific and general functions, unconstrained optimization, constrained optimization with equality constraints (classical programming), concavity, convexity, quasiconcavity and quasiconvexity, homogeneous functions, integral calculus, exponential and logarithmic functions, linear programming, eigenvalues and eigenvectors. Prerequisite: *Economics-Administration 225a, 220b* (or equivalents). Pre- and co-requisites: *Economics 200, 201*, or permission of the instructor. Three lectures weekly.

*M. Arvin*

*Economics-Comparative Development 331a*

Development as a self-contained evolutionary process. Models of growth and development, examination of sectoral problems of development such as agriculture, education, health, etc. Cost-benefit assessment of development projects. Planning strategies for economic development and the diversity of the development experience. Two lectures weekly, seminar fortnightly. (Excludes *Economics 330*).

*S. Choudhry*

*Economics-Comparative Development 332b*

Development and under-development in a global context. The evolving world economy and the place of less developed nations in an increasingly interdependent global system. Topics include market-oriented policy reform; structural adjustments that move economies to market-based systems; the growing literature on debt and development; increasing interdependence in areas such as food, energy, natural resources, technology and financial flows. Two lectures weekly, seminar fortnightly. (Excludes *Economics 330*).

*S. Choudhry*

*Economics 341a*

Industrial organization. Study of markets including perfect competition, monopoly, and imperfect competition. Special topics include product differentiation, collusion, predatory pricing, entry deterrence, advertising, research and development, patents, price discrimination, vertical restraints and antitrust policies.

Prerequisite: *Economics 200*. Pre- and co-requisites: *Economics-Administration 225a* or equivalent. Two lectures weekly, seminar fortnightly.

*M. Arvin*

*Economics 350a*

Economics of Trade Unions. What do unions really do? The application of economic analysis to explain the rise and impact of private and public sector unionism in Canada. Topics include: the effects of unions on wages, productivity and unemployment; collective bargaining; and the causes and consequences of strikes. Two lectures weekly, seminar fortnightly.

*M. Huberman*



*Economics 351a*

Labour economics. The economic theory of labour markets used to understand their outcomes and evaluate policies. Topics include wage differentials, investment in human capital, and structural unemployment problems. Prerequisites: *Economics 200*. Two lectures weekly, seminar fortnightly.

T. Drewes

*Economics 361a/b*

An economic history of the industrial revolution. (Not offered this year but will be offered in 1995-96.)

*Economics 362b*

International economic history, 1850 to present. Seeks to understand alternative paths to industrialization in the context of international capital, labour and goods markets. Topics include the classic gold standard, core-periphery relations, the inter-war years and growth after 1945. Emphasis on the European experience. Two lectures weekly, seminar fortnightly. (Excludes *Economics 360*) (Will not be offered in 1995-96.)

M. Huberman

*Economics 365a/b*

History of economic thought. (Not offered this year.)

*Economics-Comparative Development 370a/b*

Comparative economic systems and planning. (Not offered this year.)

*Economics-Environmental and Resource Studies 381b*

Environmental Economics. This course examines the links between economic activity and environmental degradation. The course examines the relationship between private and social incentives for economic activity. Topics include the valuation of environmental amenities, incentive compatible regulation, the economic and environmental effects of market failure and the rationale for government intervention. Two lectures weekly, seminar fortnightly.

B. Leith

*Economics-Canadian Studies 384b*

Health Economics. Economic analysis of the organization, financing and utilization of health services. Patterns of consumer and provider behaviour; the functioning and regulation of markets for health services; policy issues in the provision of health care in Canada. Two lectures weekly, seminar fortnightly.

J. Muldoon

*Economics 396a*

Special topics in economic analysis and policy. (Not offered this year.)

*Economics 397b*

Special topics in economic analysis and policy: Competitiveness Policy. The role of government policy in national competitiveness with special reference to Canada's policy options. Topics include defining competitiveness and the range of applicable policy, alternative views of the determinants of competitiveness and the role of the state, government and competitiveness in the United States, European and East Asian economies including Japan. Canada's policy options in the resource-based, basic manufacturing, high technology, and service sectors. Two lectures weekly, seminar fortnightly.

P. Wylie

**Four-hundred Series Courses:**

*Four-hundred* series courses are normally open only to students in the fourth quarter of the Honours program.

*Economics 400b*

Topics in advanced microeconomic theory. Development of utility theory from axiomatic preference theory, homogeneous utility and production functions, duality in production and consumption, decisions involving risk and uncertainty, market structures and market failure. Prerequisites: *Economics 200*, *Economics-Administration 225a*, *220b* (or equivalents).

T. Drewes

*Economics 405a*

Topics in advanced macroeconomics. The Classical model; IS/LM model and resurrection of Keynes; Keynesian macroeconomics as an equilibrium and disequilibrium phenomena; micro-foundations of macroeconomics; implicit contract theory; wealth effects and government budget financing; rational expectations and new Classical macroeconomics; optimal choices of monetary policy instruments; trade unions, wages and employment; and efficiency wage and other theories of unemployment. Prerequisites: *Economics 201*, *Economics-Administration 225a*, *220b* (or equivalents). Three lectures weekly.

B. Leith

*Economics 415b*

Public sector economics. (Not offered this year.)

*Economics 420b*

Topics in Econometrics. This course provides concrete experience in the estimation and testing of economic models. The course introduces alternatives to simple regression techniques as they relate to particular economic and statistical issues in an applied setting. The emphasis of the course is on integrating economic theory and empirical applications. Prerequisite: *Economics 320a* or permission of the instructor.

*B. Leith*

*Economics 425b*

Advanced Topics in Mathematical Economics. Classical and non-linear programming; differential equations; dynamic optimization; optimal control theory; game theory and economics of uncertainty. Economic theory and applications will be stressed throughout the course. Prerequisite: *Economics 325a* or permission of the instructor.

*M. Arvin*

*Economics 401*

Research project. This course is designed in such a way that the student must research a topic of individual interest under the close supervision of a faculty adviser. Prerequisite: Open only to single or joint economics majors in the fourth quarter of the Honours program.

*H. Kitchen and staff*

*Economics 496a, 497b*

Special topics in economic analysis and policy. (Not offered this year.)

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## Education

### *Acting Director Trent-Queen's Teacher Education Program*

To be named.

### *Associate Professor*

Deborah P. Berrill, B.A. (NORTHWESTERN), M.A. (TORONTO), PH.D. (EAST ANGLIA) (on leave 1994-95)

### *Assistant Professor*

Margaret Olson, M.ED., PH.D. (ALBERTA)

### *Adjunct Faculty*

Ladd Skube, B.A. (WESTERN), B.ED./M.ED. (TORONTO)

Students contemplating careers in teaching in either elementary or secondary

schools are able to undertake a four- or five-year program of studies at Trent and Queen's Universities. The concurrent teacher education program co-sponsored by the Faculty of Education, Queen's University, enables students to enrol in programs which qualify them for a Bachelor of Arts or a Bachelor of Science degree from Trent University and a Bachelor of Education degree from Queen's University. The first three or four years of the Concurrent Program are conducted at Trent and the first half of the final year is held at Queen's University. At the same time the student will obtain an Ontario Teacher's Certificate with either Primary-Junior (Grades K to 6) or Junior-Intermediate (Grades 4 to 10) or Intermediate-Senior (Grades 7 to OAC) specialization.

### **Note:**

While responsibility for ensuring that all B.A./B.Sc. and B.Ed. requirements are fulfilled rests with the student, students are strongly encouraged to consult with the Trent-Queen's Teacher Education Program office to ensure that courses selected are acceptable in meeting these Program requirements. A list of acceptable courses is made available to Teacher Education students in the Fall prior to registration at information sessions.

### *Primary-Junior Program*

This option is designed for candidates who intend to begin their teaching careers in elementary schools. Candidates are prepared to teach all subjects in the Primary division (Kindergarten to Grade 3) and the Junior division (Grades 4 to 6).

Candidates admitted to this program are required to include in their overall Arts/Science program:

- 1 course in Psychology
- 1 course in language or linguistics
- 1 course in Mathematics (or OAC Mathematics)
- 1 course in the arts
- 1 course in social studies (History, Geography, Political Studies, Sociology, Anthropology, Native Studies, Canadian Studies, Comparative Development Studies, Environmental and Resource Studies, and Women's Studies)
- 1 course in science (or OAC Science)

### *Junior-Intermediate Program*

This option prepares candidates to teach in the Junior division (Grades 4 to 6) and the Intermediate division (Grades 7 to 10).

In addition to a core program preparing generalist teachers, there is the opportunity for candidates to do further study in one teaching subject of the Intermediate division.

Candidates selecting this option may major in any subject but must include in their total undergraduate degree program three full courses in one teaching subject, i.e. English, Drama, Geography, History, Mathematics, Visual Arts and General Science. Exception is French where five full undergraduate courses are required.

In addition, candidates are required to include in their overall Arts/Science program:

- 1 course in Psychology
- 1 course in language or linguistics
- 1 course in Mathematics
- 1 course in Science

#### *Intermediate-Senior Program*

This option prepares candidates to teach in the Intermediate division (Grades 7 to 10) and the Senior division (Grades 11 to OAC). Candidates admitted to this option must select two teaching subjects for the study and development of teaching methods in these divisions. They must include in the undergraduate degree five full courses in one teaching subject and four full courses in the other. Exception is French where five full undergraduate courses must be completed. Also included in the undergraduate degree must be one course in Psychology. In addition to the subject concentrations mentioned above in the Junior-Intermediate program, candidates may also select from Biology, Chemistry, Computer Science and Physics.

#### *Program Design*

Candidates must have obtained an overall B average (70%) in all Arts/Science courses from a three-year B.A. or B.Sc. program, or an Honours degree, before proceeding to the final year of the program.

The design of the concurrent program is an attempt to make teacher preparation both academic and field centred. The program is spread over a four- or five-year period and places the students in contact with school children in each of the years while at the same time allowing the students to pursue academic and professional studies. The students' involvement in the professional program increases from year to year and culminates in a one-half year of internship from January to April of the final year.

Candidates elect to specialize in one of three program options upon entry into second year.

The program encourages candidates to do an Honours degree. Candidates for an Honours B.A. or B.Sc. take a full fourth year in arts and science and complete the final year of the education program in their fifth year.

Approximately 125 candidates may be accepted in first year. Candidates will be selected on the following criteria:

1. Academic Profile **50%** (Ontario Grade 13 or 6 OACs or equivalent).
2. Experience Profile **50%** (showing candidate's related experience and stressing responsibility, leadership and initiative). The program is actively seeking candidates with experience (1) with special needs populations and (2) in multicultural settings.
3. The program actively seeks candidates who are interested in teaching science at both elementary and secondary school levels; and/or women interested in science at all levels.

#### **Required Courses**

##### *Year 1*

Up to five full B.A. or B.Sc. courses.  
One Education Special Studies half course. Equivalent of 10 full days in classrooms.

##### *Year 2*

Up to five full B.A., or B.Sc. courses.  
One Education Foundations course.  
Equivalent of 10 full days in classrooms.

##### *Year 3*

Five full B.A. or B.Sc. courses.  
One Education Foundation course. Five full days followed by one continuous week of evaluated teaching in classrooms.

##### *Final Year*

Fall semester at Queen's University - Curriculum Studies, Foundations, Skills, Practicum. Fall teaching round and, during winter semester, a four-month internship in a school in Peterborough, Kingston or other selected areas.

#### **Note:**

Students enrolling in the Trent-Queen's Concurrent Teacher Education Program are required to pay Queen's course fees for their Education courses. These are not covered by Trent University arts and science tuition fees.

Also, in Education courses students are expected to pay a nominal course materials fee.

## English Literature

*Professor and Chair of the Department*  
Z.H. Pollock, B.A. (MANITOBA), PH.D.  
(LONDON)

### Professors Emeriti

E.M. Orsten, M.A. (OXFORD), PH.D.  
(TORONTO); G. Roper, M.A., PH.D.  
(CHICAGO); D.F. Theali, B.A. (YALE), M.A.,  
PH.D. (TORONTO)

### Professors

R.D. Chambers, B.A. (MCGILL), B.LITT.  
(OXFORD) (on leave 1994-95);  
L.W. Conolly, B.A. (WALES), M.A. (MCMAS-  
TER), PH.D. (WALES); R.J. Dellamora, A.B.  
(DARTMOUTH COLLEGE), B.A. (CAMBRIDGE),  
M.PHIL., PH.D. (YALE); J.A. Fekete, M.A.  
(MCGILL), PH.D. (CAMBRIDGE); S.F.  
Gallagher, B.A., PH.D. (IRELAND), M.A.  
(WESTERN ONTARIO); G.A. Johnston, B.A.  
(TORONTO), M.A. (HARVARD) (on leave  
1994-95); S. Kane, B.A. (CARLETON), M.A.,  
PH.D. (TORONTO); W.I. McLachlan, M.A.  
(OXFORD); O.S. Mitchell, M.A. (ALBERTA),  
PH.D. (LONDON); J.E. Neufeld, B.A.  
(TORONTO), M.A., PH.D. (CHICAGO); M.A.  
Peterman, A.B. (PRINCETON), M.A., PH.D.  
(TORONTO) (on leave Winter Term 1995);  
J.M. Treadwell, B.A. (TORONTO), M.A.  
(CAMBRIDGE); F.B. Tromly, B.A.  
(GRINNELL), M.A., PH.D. (CHICAGO) (on leave  
Winter Term 1995)

### Associate Professors

M.S. Berkowitz, B.A. (NEW YORK), M.A.,  
PH.D. (MASSACHUSETTS); S.W. Brown,  
B.A., M.A. (WINDSOR), B.A., PH.D. (QUEEN'S),  
F.S.A. (SCOT.); K.A. Chittick, B.A., M.A.  
(TORONTO), PH.D. (EDINBURGH) (on leave  
Fall Term 1994); L.J. Clark, B.A., M.A.  
(TORONTO), PH.D. (VIRGINIA); G.D.  
Eathome, B.A. (NEW ZEALAND), M.A.  
(CANTERBURY); D.K. Glassco, B.A.  
(QUEEN'S), M.A. (MELBOURNE); E.A.  
Popham, B.A., M.A. (MANITOBA), PH.D.  
(QUEEN'S)

### Assistant Professors

J. A. Buckman, B.A. (MCGILL), M.A.  
(SUSSEX), PH.D. (MONTREAL); M.C. Eddy,  
M.A. (WESTERN ONTARIO), PH.D. (TORONTO);  
S.L. Keefer, M.A., PH.D. (TORONTO)

### Note:

The curriculum of the Department has been designed to accommodate a wide range of approaches to the study of English Literature. With the exception of *English 205* (see below), courses are arranged in six categories. Each of the first five categories (A to E) encompasses a single literary period, and courses within

each category provide a variety of approaches to the period. These approaches include literary-historical surveys, studies of outstanding writers in relation to their age, and studies of literary topics or genres associated with a particular literary period. The sixth category (F) consists of courses which are not confined to any particular period, but which provide comprehensive inquiries into genres, literary theory and criticism, and the history of ideas. The Department encourages students to explore as many different kinds of study as possible.

A	B	C	D	E	F
800 to 1500	1500 to 1642	1642 to 1790	1790 to 1900	1900 to Present	Genres, etc.
230	220	201	210	105	115
331	253	300	231	229	120
332	351	301	232	265	310
431	420	302	320	266	315
432	433	434	321	340	325
			435	345	329
			436	350	360
				365	370
				371	375
				440	380
				450	381
				460	425
				465	4951
				466	4952
				475	4953
					4954

### Required Courses

*English 205: Methods of Literary Analysis* is a requirement for all English majors in the second quarter of their program.

The single-major Honours program in English consists of nineteen courses. Minimum of ten English courses, including *English 205*. At least one course must be chosen from each of the six categories listed above, and at least three of the final four must normally be *four-hundred* series English courses.

Joint-major Honours program. Minimum eight English courses, including *English 205*. Five courses are to be chosen from different categories listed above, and at least two of the final four must normally be *four-hundred* series English courses.

Single-major General program. Minimum six English courses, including *English 205*. Four courses are to be chosen from different categories listed above, including

at least two from categories A to C, and at least two from categories D to F.

**Joint-major General program.** Minimum five English courses, including *English 205*. Three courses are to be chosen from different categories listed above, including at least one from categories A to C, and at least one from categories D to F.

### Special Provisos

**One-hundred series courses:** Only one *one-hundred* series English course may be taken by students in their first year, and no more than two may be counted towards a degree. First-year students wishing to take a second English course must obtain written permission from the Department Chair.

Normally, a student will be required to take a *one-hundred* series English course and obtain a grade of C- (60%) or better in order to major in English.

**Two-hundred and three-hundred series courses:** Any *two-* or *three-hundred* series English course is open to any upper-year student, with the exception of *English 205* which is not open to English majors in their fourth quarter. *Two-hundred* series English courses are considered equivalent to *three-hundred* series courses to satisfy the University degree requirement of four full courses in the *three-hundred* series.

**Fourth quarter:** The fourth quarter of the Honours program will normally consist of four courses.

Information meetings for students intending to enter the fourth quarter of the Honours program are held during the Winter Term when the details of the next year's *four-hundred* series course offerings and application procedures are outlined. All inquiries should be directed to Professor E.A. Popham, Peter Robinson College, 748-1739 (email: "epopham").

**Four-hundred series courses** are normally limited to students in the fourth quarter of the Honours program. However, students wishing to apply for admission to a *four-hundred* series course before entering the fourth quarter of the Honours program may do so if they have first obtained the permission of the instructor.

**Four-hundred level ("Honours-stream") seminars** in *two-* and *three-hundred* series courses are provided for students lacking a prerequisite for a *four-hundred* series course in a category which they require, but they are open as well to any fourth-quarter students who have not already taken the related *two-* or *three-hundred*

series course. These seminars are equivalent to *four-hundred* series courses in workload and assessment, and will be recorded as *four-hundred* series courses on students' transcripts. (Proposed "Honours-stream" seminars are announced at the fourth-quarter information meeting.)

English majors wishing to enrol in both *English-Canadian Studies 465* and *English-Canadian Studies 466* must first obtain the permission of the Chair of the English Department.

### Note:

As one of the "optional" English courses allowed in the General and Honours programs in English, students may count one of the following full-, or two of the following half-courses: *Canadian Studies 355*; *Classical Literature 100, 200*; *Cultural Studies 205, 222, 225, 270, 322, 370, 495 (in 1994-95)*; *German 220*; *Spanish 324a, 325b*. However, none of these courses may be used to satisfy the category requirements for English majors.

The Department recommends that students considering graduate studies in English literature complete an upper-year course in a second language.

### English 105

The modern period and its roots. The course introduces students to the study of literature through a critical examination of the work of the most significant writers of the modern period (Conrad, Yeats, Joyce, Lawrence, Eliot, and Woolf) and some of their most important forerunners (Browning, Hopkins, Dickens, and Hardy). Weekly lecture and seminar; occasional workshops.

*D.K. Glassco and staff*

### English 115

Studies in English drama. (Not offered this year.)

### English 120

Varieties of heroism. The course introduces students to the study of literature through the critical examination of the relationship between the heroic individual and society. The course will draw on a wide range of periods, but special emphasis will be put on works from the Renaissance to the Romantic era. Writers to be studied include Shakespeare, Milton, Swift, Fielding, Austen, Wordsworth, and Emily Brontë.

Weekly lecture and seminar; occasional workshops.

*L.J. Clark and staff*

*English 201*

Studies in Milton. An examination of Milton's development as man and artist through the study of his major works including "Comus," "Lycidas," *Areopagitica*, *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*. Weekly lecture and seminar. (Offered this year and in alternate years.)

*M.S. Berkowitz*

*English 205*

Methods of literary analysis. An introduction to methods of literary analysis, and to the assumptions underlying their use. Emphasis will be placed on learning through writing, and a wide range of works, representing a variety of periods, genres, and cultural perspectives, will be explored. Weekly three-hour workshop.

*Z.H. Pollock and staff*

*English 210*

The Romantics. A study of the major English writers of the Romantic revolution: Burke, Wollstonecraft, Blake, Coleridge, Wordsworth, Scott, Austen, Byron, the Shelleys, Keats, and Emily Brontë, with some attention to minor figures and to Romantic theories of the imagination. Weekly lecture and seminar.

*L.J. Clark and staff*

*English 220*

Studies in Shakespeare. An examination of Shakespeare's dramatic career through the study of about a dozen representative works spanning the period from the early comedies to the last plays. Particular consideration will be given to Shakespeare's imaginative development. Weekly lecture and seminar; workshops.

*F.B. Tromly/S.W. Brown and staff*

*English-Cultural Studies 229*

Science fiction. (See Cultural Studies)

*English 230*

The history of the English language. A study of the English language, tracing its development and use from earliest times to modern experimental fiction. The course introduces this study through practical philology and applies language skills to a wide range of prose and verse, with special emphasis on works from the Old and Middle English periods.

Recommended: *Modern Languages 100*.

Weekly lecture and seminar; language workshops.

*S.L. Keefer*

*English 231*

The American Renaissance. Studies in the literature of the pre-Civil War United States. Attention will focus on the work of Poe, Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson.

Weekly lecture and seminar. (Offered this year and in alternate years.)

*M.A. Peterman/K.A. Chittick and staff*

*English 232*

American literature: The Gilded Age. (Offered in alternate years, but not this year.)

*English 253*

Elizabethan and Jacobean literature. Studies in the literature of the English Renaissance. The course will deal with the poetry, prose, and drama of a period when new ideas both stimulated literary expression and unsettled established assumptions about human nature, language, and the order of the universe. Writers to be studied include Sidney, Spenser, Marlowe, Shakespeare, Donne, Jonson, and Bacon. Weekly lecture and seminar.

*E.A. Popham*

*English-Canadian Studies 265*

English Canadian prose. A study of the principal Canadian writers of prose in English from the nineteenth century to the present day. Writers to be studied include Atwood, Davies, Duncan, Haliburton, King, Kroetsch, Laurence, Leacock, Moodie, Munro, Ondaatje, Richler, and Ross. Weekly lecture and seminar.

*O.S. Mitchell and staff*

*English-Canadian Studies-Women's Studies 266*

Canadian women's writing. (See Canadian Studies)

*English 300*

The Augustan age. (Offered in alternate years, but not this year.)

*English 301*

The age of Johnson. Studies in the English literature of the mid and late eighteenth century, 1740-1795. Writers to be studied include Boswell, Burke, Burney, Burns, Goldsmith, Gray, Richardson, Sheridan, and Sterne, with particular attention to the work of Samuel Johnson. Weekly lecture and seminar. (Offered this year and in alternate years.)

*J.M. Treadwell*

*English-Women's Studies 310*

Gender and literature. A study of relations between gender and literature in the works of writers, mainly women, in England and the United States (Wollstonecraft, Austen, Brontë, Eliot, Dickinson, Christina Rossetti, Whitman, Forster, Woolf, Plath, Rich, Lessing, and Alice Walker) and some of their important forerunners. Weekly lecture and seminar. (Offered this year and in alternate years.)

*J.A. Buckman*

*English 315*

Commonwealth fiction. A study of prose fiction of the Commonwealth with special emphasis on the West Indies, Africa, and Asia. Writers to be studied include V. S. Naipaul, Jean Rhys, Chinua Achebe, Ngugi wa Thiongo, J. Coetzee, Nadine Gordimer, N.K. Narayan, Salman Rushdie, and Anita Desai. Weekly lecture and two-hour fortnightly seminar. (Offered this year and in alternate years.)

*G.D. Eathorne*

*English 320*

The age of Dickens. (Offered in alternate years, but not this year.)

*English-Cultural Studies 321*

Literature and society. Studies in the relation between literature and society in a number of nineteenth century works that deal with social, cultural, and women's issues. Writers to be studied include Arnold, C. Brontë, Carlyle, Dickens, George Eliot, Engels, Gaskell, Marx, Mill, Morris, and Hardy. Weekly lecture and seminar. (Offered this year and in alternate years.)

*R.J. Dellamora*

*English 325*

Critical approaches to literature. An introduction to the assumptions underlying a number of contemporary critical approaches to literature, focusing on their key concepts and aims, and exploring their strengths, weaknesses, and silences when applied to literary texts in English. Theories to be studied include: Russian Formalism, Structuralism and Semiotics, Deconstruction, Feminist Theory, Psychoanalysis, Reader-Response Criticism, and New Historicism. Lecture and seminar weekly; occasional workshops.

*M.C. Eddy*

*English-Cultural Studies 329*

Utopia (Future fiction). (See Cultural Studies)

*English 331*

Chaucer and his age. A study of Chaucer's works, especially *The Canterbury Tales*, and of other English writers and literary interests of the fourteenth century. Lecture and seminar weekly. (Offered this year and in alternate years.)

*S.L. Keefer*

*English 332*

Medieval romance. (Offered in alternate years, but not this year.)

*English 340*

Modern poetry. (Offered in alternate years, but not this year.)

*English 345*

Modern British fiction. (Offered in alternate years, but not this year.)

*English 350*

Modern drama. Studies in the works of recent English, Irish, American, and Canadian dramatists. Writers to be studied include Shaw, Synge, O'Casey, O'Neill, Williams, Osborne, Pinter, Davies, and French. Weekly lecture and seminar.

*S.F. Gallagher*

*English 351*

English drama to 1642. (Offered in alternate years, but not this year.)

*English-Canadian Studies-Native**Studies 360*

Native peoples in literature. (Not offered this year.)

*English-Canadian Studies 365*

English Canadian poetry. (Not offered this year.)

*English 370*

Studies in the novel. (Offered in alternate years, but not this year.)

*English 371*

Modern American fiction. A study of American fiction from 1920 to the present. Writers to be studied include Hemingway, Fitzgerald, Faulkner, West, and Steinbeck; and some of Bellow, Doctorow, Hurston, Morrison, Salinger, Silko, Walker, and Welty. Weekly lecture and seminar. (Offered this year and in alternate years.)

*M.C. Eddy and staff*

*English 375*

An introduction to creative writing. A workshop course which offers students a formal course structure within which to pursue their interest in creative writing. The 1994-95 workshop will concentrate on fiction. Students will submit rough

written work ("freefall") weekly and over the year will work towards a finished piece of fiction. Students seeking admission to the course will submit a portfolio of written work to the instructor by July 1, 1994, and will be notified if they have been accepted into the course by August 1. Weekly three-hour workshop.

*O.S. Mitchell*

*English-Cultural Studies 380*

Narrative literature and film. (Not offered this year.)

*English 381*

Literature and psychology. (Not offered this year.)

*English 402*

Honours thesis. A double credit course, for which double fee is charged, in which instruction in research methods leads to a thesis of about 15,000 words. This year, the department deadline for a thesis abstract and bibliography (signed by the thesis supervisor) is May 1.

*English 420*

Advanced studies in Shakespeare. Topic for 1994-95: Shakespeare's Theatre. Northrop Frye suggests that the theatre itself is the central character in Shakespeare's work. This course will focus on the theatre and various issues implicit in the theatre: notions of role and role-playing; the question of the author-and authority; the complicity of the spectator in the action; and the function of imagination. These questions--and more--will be explored by looking at a wide sampling of Shakespeare's plays. Prerequisite: *English 220* or permission of the instructor. Two-hour seminar weekly.

*D.K. Glassco*

*English-Cultural Studies 425*

Advanced studies in literary and critical theory. Topic for 1994-95: Literary theory and metatheory. A study of ideas about the nature and function of literature, criticism, and theory. These ideas are considered in historical sequence, from Greek mimesis to contemporary post-modernism, intertextualism, and pragmatism, with a central focus on the emergence and decline of modernist Anglo-American theories of literary and imaginative autonomy. Such theoretical models will be examined as Plato and Aristotle, Coleridge, Arnold and Pater, Eliot, Richards, Frye and McLuhan, Fish and Tompkins, Barthes and Foucault, and

a selection of feminist writers. (Excludes *Cultural Studies-English 325*.)

Prerequisite: none. Two-hour lecture-seminar weekly.

*J.A. Fekete*

*English 431*

Studies in Old English language and literature. Topic for 1994-95: The impact of Christianity on Germanic pagan culture. We will study the energies and tensions created by the Christianizing of the Germanic invaders of England. A broad background in the history, aesthetics and beliefs of Anglo-Saxon culture, acquired in the first term at the same time as language skills, will provide the context in which we explore the literature of pre-Conquest England in second term. Prerequisite: *one-hundred level German* or *one-hundred level Latin* or *English 230* or permission of the instructor. Two-hour seminar weekly.

*S.L. Keefer*

*English 432*

Advanced studies in Middle English language and literature. (Not offered this year.)

*English 433*

Advanced studies in Renaissance literature. (Not offered this year.)

*English 4341*

Advanced studies in Restoration and eighteenth century literature. Topic for 1994-95: Scandalous narratives and notorious lives: the development of autobiography in the eighteenth century. The course examines the lives and writings of some of the seventeenth and eighteenth centuries' more scandalous writers. Authors studied will include Aphra Behn, Lord Rochester, Alexander Pope, Lady Mary Wortley Montagu, Colley Cibber, Charlotte Charke, John Cleland, Walpole Horace, Laetitia Pilkington, Laurence Sterne, Robert Burns, Mary Wollstonecraft, and Lord Byron. Primary texts will include novels, memoirs, and letters, with an emphasis on testing the boundaries (both private and public) that separate fiction from fact in lifewriting. Prerequisite: *English 300* or *302* or *370* or permission of the instructor. Two-hour seminar weekly.

*S.W. Brown*

*English 4342*

Advanced studies in Restoration and eighteenth century literature. Topic for 1994-95: Sex and Sensibility: the novels of Laurence Sterne and Jane Austen.



The course will explore the treatment of human sexuality in the writings of Sterne and Austen, considering the direct confrontation of that theme in Sterne and the indirect treatment in Austen. In both instances we will consider how an awareness of sexual vulnerability in both authors affects narrative integrity in their writing. Texts will include *Tristram Shandy*, *A Sentimental Journey*, *Journal to Eliza*, *Sense and Sensibility*, *Pride and Prejudice*, *Emma*, *Mansfield Park*, and *Persuasion*. Prerequisite: *English 300* or *302* or *370* or permission of the instructor. Two-hour seminar weekly.

*S.W. Brown*

*English 435*

Advanced studies in the Romantics. Topic for 1994-95: The Romantic Sublime. The course explores the implications of the idea of the sublime, once virtually synonymous with romanticism and now a central idea for postmodernism. Beginning with its philosophical background in Burke, Kant, and Rousseau, we will investigate the aesthetic, political, ethical, and gender implications of the idea for Wordsworth, Byron, Percy Shelley, and Mary Shelley, with some attention to Blake, Keats, and Jane Austen. We will consider the sublime in music and romantic landscape painting, as well as its current resurgence in postmodern theory. Prerequisite: *English 210* or permission of the instructor. Two-hour seminar weekly.

*L.J. Clark*

*English 436*

Advanced studies in Victorian literature. (Not offered this year.)

*English 440*

Advanced studies in modern poetry. (Not offered this year.)

*English 450*

Advanced studies in modern drama. Topic for 1994-95: Modern Irish drama. A study of drama in Ireland from the foundation of the Abbey Theatre to the present. Playwrights to be studied include Shaw, Yeats, Lady Gregory, Synge, O'Casey, Lennox Robinson, Denis Johnston, Brian Friel, Hugh Leonard, and Thomas Murphy. Prerequisite: none. Two-hour seminar weekly.

*S.F. Gallagher*

*English 460*

Advanced studies in modern fiction. (Not offered this year.)

*English-Canadian Studies 465*

Advanced studies in Canadian literature. Topic for 1994-95: English-Canadian Drama. This course will provide a critical overview of the development of English-Canadian drama from the mid-nineteenth century to the present, with an emphasis on the drama of the last thirty years. Playwrights to be studied include John Herbert, James Reaney, George Ryga, David Freeman, David French, George Walker, David Fennario, John Murrell, Sharon Pollock, Judith Thompson, and Tomson Highway. Prerequisite: *English-Canadian Studies 265* or *266* or *English 350* or *Cultural Studies 270* or *370*. Two-hour seminar weekly.

*L.W. Conolly*

*English-Canadian Studies 466*

Canadian literary pluralities. Prerequisite for English majors: *English-Canadian Studies 265* or *266* or *365* or permission of the instructor. (See Canadian Studies.)

*English-Women's Studies 475*

Advanced studies in American literature. Topic for 1994-95: William Faulkner and Toni Morrison. The course examines the representation of gender and race in the fiction of Faulkner (first term) and Morrison (second term), the two major voices emerging from the American South in the twentieth century. The fiction will be read in the context of current debates in feminist and African-American literary theory. Prerequisite: *English 231* or *232* or *310* or *325* or *371* or permission of the instructor. Two-hour seminar weekly.

*M.C. Eddy*

*English 490*

Reading course. The course allows the student to select, with the approval of the Department, an area for research study which is then pursued under the direction of a member of the Department. Students are advised that all normal Calendar deadlines for registration in courses apply to *English 490*.

*English 495*

Special topics: The following special topic courses will be offered in 1994-95:

*English 4951*

Imagination and belief. The course will focus on the imaginative presentation of religious belief, rather than on specifics of doctrine and theology, from an interdisciplinary perspective, drawing on William James, *The Varieties of Religious Experience*, and Rudolph Otto, *The Idea of the Holy*. The works to be studied have

been selected from a broad historical and cultural spectrum, ranging from portions of the Old and New Testaments and sacred Eastern texts to works by Bunyan, Milton, and Donne, and by such contemporary authors as Robert Bringham, Peter Matthiessen, and Shunryu Suzuki. Prerequisite: none. Two-hour seminar weekly.

*M.S. Berkowitz*

*English-Women's Studies 4952*

Women artists by women artists. The course will explore literary texts ranging from the nineteenth to the twentieth centuries, drawn from British, American, and Canadian literary traditions, that reveal how women artists have struggled to withstand their exclusion from hegemonic power structures. Writers to be studied include Margaret Atwood, Mary Austin, Anita Brookner, Willa Cather, Keri Hulme, Margaret Laurence, Doris Lessing, Paule Marshall, Alice Munro, Elizabeth Stuart Phelps, May Sarton, and Virginia Woolf. Prerequisite: none. Two-hour seminar weekly.

*J.A. Buckman*

*English-Cultural Studies 4953*

Theories of Subjectivity. A course in post-structuralist theories of subjectivity, with a special emphasis on textual processes in subject formation. Works by Roland Barthes, Michel Foucault, Teresa de Laurentis, Monique Wittig, and Gayatri Chakravorty Spivak, among others, will be considered. Prerequisite: none.

Weekly lecture and seminar.

*R.J. Dellamora*

*English 4954*

The History of the Book. An introduction to historical bibliography, the production, dissemination, and consumption of printed matter in the English speaking world from the fifteenth to nineteenth centuries.

Topics to be studied will include literacy and reading habits; the development of printing, publishing, and bookselling; press licensing and censorship; copyright and piracy; book collecting and the development of libraries. Prerequisite: none. Two-hour seminar weekly.

*J.M. Treadwell*

## Environmental and Resource Studies

*Associate Professor and Acting Chair of the Program*

T.H. Whillans, B.A. (GUELPH), M.S.C., PH.D. (TORONTO)

*Professor Emeritus*

C. Carter, B.S.C., PH.D. (LONDON)

*Professors*

R.D. Evans, B.S.C. (TORONTO), PH.D. (MCGILL); W.F.J. Evans, M.A., PH.D. (SASKATCHEWAN); T.C. Hutchinson, B.S.C. (MANCHESTER), PH.D. (SHEFFIELD) (on leave Fall Term 1994); R.C. Paehlke, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH), PH.D. (BRITISH COLUMBIA); M.L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO)

*Associate Professors*

M.G. Fox, B.S.C. (PENNSYLVANIA), M.E. DES. (CALGARY), PH.D. (QUEEN'S); M. Havas, B.S.C., PH.D. (TORONTO); C.D. Metcalfe, B.S.C. (MANITOBA), M.S.C. (NEW BRUNSWICK), PH.D. (MCMASTER) (on leave Winter Term 1995)

*Assistant Professors*

D.G. Holdsworth, B.S.C. (WATERLOO), M.S.C. (MCMASTER), PH.D. (WESTERN ONTARIO); R. Ponce-Hernandez, B.ENG., M.S.C. (CHAPINGO), D.PHIL. (OXFORD)

*Conjunct Professor*

P. Welbourn, B.S.C., PH.D. (BRISTOL)

*Demonstrator/Technician*

R.K. Loney, B.S.C. (TORONTO); R.C. Williams, B.S.C., M.S.C. (TRENT)

*Associated Faculty*

*Biology*, E. Nol, R. Jones; *Canadian Studies*, J.H. Wadland; *Chemistry*, J.M. Parnis; *Geography*, J.M. Buttle, J.S. Marsh; *Physics*, J.W. Earnshaw, A.J. Slavin; *Sociology*, F. Nutch; *Women's Studies*, M. Hobbs

The Environmental and Resource Studies Program is an interdisciplinary program offered by Environmental and Resource Studies (ERS) in cooperation with eighteen other University departments and programs. It provides an opportunity to take a single or joint honours or a single or joint General B.A. (Environmental Studies) or B.Sc. (Environmental Science) degree, consisting of ERS core courses and departmentally-offered support courses. Students should note carefully the course descriptions to ensure that they have the necessary prerequisites for any support courses they may wish to take

for ERS credit. Students who have not obtained prior written permission from instructors when prerequisites are not met will not be allowed to register in these courses. Enrolment limits will apply to many ERS courses in 1994-95.

### Degree Requirements

Please read the section of the Calendar that describes the university-wide requirements for B.A. and B.Sc. degrees. Note also that a B.Sc. degree requires completion of a Grade 13/OAC course in Mathematics or equivalent, or a university-level Mathematics course. For a B.A. one of *Economics 101(a/b)/102(a/b)*, *Geography 101*, *Philosophy 105* or *Mathematics-Statistics 150* must be taken. Another course with quantitative content may be substituted with permission of the ERS Chair.

Single- and joint-major Honours programs consist of twenty full-course equivalents. Minimum of ten ERS courses for a single-major and eight for a joint-major. Additional requirements include:

#### *Bachelor of Science*

##### *ES 100*

one of *ES 202, 220, 230*

five *three-hundred* and *four-hundred* level ERS courses (single-major)

three *three-hundred* and *four-hundred* level ERS courses (joint-major)

one *two-hundred* level or higher arts course

#### Note:

A total of 14 science courses is required for an Honours B.Sc.

#### *Bachelor of Arts*

##### *ES 100*

one of *ER 200, 250*

five *three-hundred* and *four-hundred* level ERS courses (single-major)

three *three-hundred* and *four-hundred* level ERS courses (joint-major)

one *two-hundred* level or higher science course

The thesis course, *ER 402* or *ES 402*, is equivalent to two full-courses, but requires permission of the ERS Chair and a minimum average in ERS credit courses of 75%. It is anticipated that most honours students will not do a thesis. Candidates for the thesis course that begins in September should normally have applied for entry by the previous May 1st. Acceptance for the thesis course is dependent upon the candidate having made arrangements with a suitable ERS supervisor.

One listed support course may be taken for ERS credit in either the single- or joint-major honours program. Occasionally a second of these courses may be approved by the ERS Chair for single-majors.

Single- and joint-major General programs consist of fifteen full-course equivalents. Minimum of six ERS courses for a single-major and five for a joint-major. Additional requirements include:

#### *Bachelor of Science*

##### *ES 100*

one of *ES 202, 220, 230*

three *three-hundred* level ERS courses (single-major)

two *three-hundred* level ERS courses (joint-major)

#### Note:

A total of 11 science courses is required for a B.Sc. degree.

#### *Bachelor of Arts*

##### *ES 100*

one of *ER 200, 250*

three *three-hundred* level ERS courses (single-major)

two *three-hundred* level ERS courses (joint-major)

One listed support course may be taken for ERS credit in either the single- or joint major General program.

### Core Courses

#### *Environmental and Resource Science 100*

Scientific bases of environmental problems. Interdisciplinary environmental science stressing the socio-economic physical, biological and technological foundations of environmental degradation and preservation, air and water pollution; solid wastes disposal and recycling; non-polluting energy resources; radiation; and noise. Three hours of lecture and film weekly, seminars fortnightly.

Coordinator: M. Fox;

R.D. Evans, M. Havas, B. Leith

#### *Environmental and Resource Studies-*

##### *Canadian Studies 200*

Canada: The land. (See Canadian Studies)

#### *Environmental and Resource Science-*

##### *Biology 202*

Ecology. (See Biology)

#### *Environmental and Resource Science 220*

Methods in environmental science.

An interdisciplinary course which will familiarize students with a wide range of laboratory and field methods directly

applicable to the study of environmental problems. Prerequisite: *Chemistry 120* or *130* or one full first year Chemistry credit. Two-hour lecture weekly, laboratory fortnightly.

*Staff*

*Environmental and Resource Science 230*

Energy science and technology. A discussion of the scientific principles of energy and thermodynamics, and the current and future prospects for energy production, conversion, storage and transmission. Prerequisites: *Physics 100* or *Chemistry 120* or *130* or one full first year Chemistry credit. Two lectures weekly, one-hour seminar fortnightly. Occasional field trips.

*J. Earnshaw, W. Evans, D. Holdsworth*

*Environmental and Resource Studies 250*

Canadian natural resource theory and management. This course examines the theories of renewable and non-renewable resource management and the way in which specific resources have been developed in Canada. Prerequisite:

*Environmental and Resource Science 100.*

One and one-half hour lecture weekly, seminar/workshop fortnightly.

*Coordinator: D. Holdsworth;*

*M. Fox, T. Whillans*

*Environmental and Resource Science-Biology 304*

Aquaculture. The culture of fish, aquatic invertebrates and other organisms is a major and growing source of food in the world. In North America, hatcheries also play an important role in the management of many of our fish stocks. This course examines techniques used in Canadian and worldwide aquaculture, their biological bases, and current research to improve production, control disease, etc. Excursions to aquacultural facilities are planned. Prerequisite: *Environmental and Resource Science-Biology 202*. Two hours of lecture, three hours of lab, fieldwork or seminar weekly.

*M. Fox*

*Environmental and Resource Studies 306*

Environmental impact assessment: A case study approach. Environmental impact assessment brings together scientific, economic, social and political perspectives in an attempt to anticipate and manage the consequences of human actions for the environment. This course will examine different approaches to environmental impact assessment, contrasting provincial with federal and social with biophysical. Case studies will

be used to illustrate particular theoretical and practical approaches. Prerequisite: one *two-hundred* level *ERS* course. Two hours of lecture/workshop weekly. *Staff*

*Environmental and Resource Studies 307*

Risk assessment: issues and techniques.

This course explores the components and process of environmental risk assessment as undertaken by scientists, individuals and societies. It considers the role of science in risk assessment, and also examines the approaches and techniques used by different scientific disciplines to study situations involving risk. A special focus is the influence of societal values and goals on the ways in which risks are viewed, accepted and managed.

Prerequisite: *Environmental and Resource Science 230* or *Environmental and Resource Studies 250*. Two hours hours of lecture weekly, seminar fortnightly.

*D. Holdsworth*

*Environmental and Resource Studies 308*

Waste management. This course examines conventional and unconventional approaches to the management of waste. It considers questions such as how wastes can be converted into resources. The course explores socio, economic, health political and ecological considerations in waste management. Prerequisite: *Environmental and Resource Studies 250*. Two hours of lecture weekly and one hour of seminar fortnightly.

*Staff*

*Environmental and Resource Studies-Canadian Studies 310*

Public policy and the Canadian environment. A comparative study of Canadian environmental policy and the history of the Canadian environmental movement with an emphasis on policies relating to occupational and environmental health, energy conservation, waste management, and renewable resources. Prerequisites: one *two-hundred* level *Environmental and Resource Studies/Canadian Studies/Political Studies* or *Administrative Studies* credit. Weekly lecture and seminar.

*R. Paehlke*

*Environmental and Resource Science 313a*

Introduction to nuclear science; radioactivity, ionizing radiations, dosimetry concepts and calculations, health effects of ionizing radiations, sources and levels of environmental radiation. Particular attention will be

focussed on the nuclear power industry and production of nuclear weapons, and health and environmental risks associated with these activities. Prerequisites: ten university credits including at least one full laboratory-based science credit. (Excludes ERS 312.) (Offered in 1994-95 and in alternate years.)

R.D. Evans

*Environmental and Resource Science 314b*

Tracer techniques in the environment. This course will present practical approaches to tracing environmental processes and pathways. It examines techniques for the use of various radioactive and stable isotopic tracers. Instruction in the use of these tracers will be included and practical applications of relevance to current environmental issues will be discussed. Prerequisites: ten university credits including at least one full laboratory-based credit.

*Environmental and Resource Science 313a* is recommended but not required. (Excludes ERS 312.) (Offered in 1994-95 and in alternate years.)

R.D. Evans

*Environmental and Resource Science 320*  
Management of forest ecosystems. This course offers an appreciation of the problems in managing forest ecosystems. It looks at the ecological processes which create and maintain forests and at how foresters attempt to manage them, and the environmental consequences of forestry practices. It then examines case studies, drawn from Ontario and other parts of the world. Prerequisite: *Biology-Environmental and Resource Science 202* or *Environmental and Resource Science 220*.  
Staff

*Environmental and Resource Studies 330*  
Environmental ethics. A critical examination of issues arising from human interaction with the natural environment. The course will focus on such themes as: the domination of nature, the allocation of scarce resources, animal versus human rights, social benefit and technological risk, conservation, preservation, and human responsibility to future generations. Special attention will be given to public and corporate policies affecting the environment with particular emphasis on the Canadian context within which these policies apply. Prerequisites: one two-hundred level *Philosophy* course, or *Environmental and Resource Studies-Canadian Studies 200* or *Environmental*

*and Resource Studies 250*. One-hour lecture and two hours seminar weekly.  
L. Rubinoff

*Environmental and Resource Studies-Canadian Studies-Geography 333a*  
Wilderness resources. (See *Geography*)

*Environmental and Resource Science-Chemistry 341b*  
Instrumental analysis. (See *Chemistry*)

*Environmental and Resource Science 350*  
Ecology and management of wetland systems. This course involves intensive first-hand study of one type of ecosystem in natural and culturally degraded states. Wetlands occur at the interface of terrestrial and aquatic ecosystems. Although they have unique traits, wetlands share characteristics with both of these types of ecosystem. Wetland management, thus requires understanding of ecological processes and management practices common to most of Canada. Prerequisite: *Environmental and Resource Science-Biology 202* or *Environmental and Resource Science 220* or *Environmental and Resource Studies 250*. Two-hour lecture weekly, two-hour field trip or workshop weekly.  
T. Whillans

*Environmental and Resource Studies-Comparative Development Studies 360*  
Environment and development. The integration of environment and development in theory and practice. The course contrasts internationally expressed intentions on "environmentally sustainable development" with the realities in developing countries. Prerequisite: *Comparative Development 200* or *Environmental and Resource Studies 250*.  
Staff

*Environmental and Resource Science 370*  
Environmental toxicology. Prerequisites: *Biology 100* or *110* and *Environmental and Resource Science 220*. Previous completion of *Biology-Chemistry 230b* and *Chemistry 210a* is strongly recommended. (To be offered in alternate years but not in 1994-95.)

*Environmental and Resource Studies-Economics 381a*  
Environmental economics.  
(See *Economics*)

*Environmental and Resource Studies/Science 385, 386a, 387b, 388c*  
Field course. Courses are offered through the Ontario Universities Program in Field Biology.

*Environmental and Resource Studies-Science 390, 391a, 392b, 393c*

Reading course. This is a research course on a specific topic. The course is only open to ERS majors or joint-majors with two B credits (or better) in ERS courses. Written permission must be obtained from the appropriate instructor and ERS Program Chair prior to early registration.

*Environmental and Resource Studies-Science 395, 396a, 397b, 398c*

Special topics. These are either experimental courses or courses which are offered on a temporary basis. The following are offered in 1994-95:

*Environmental and Resource Science 3951*

Applied ecology. This course will familiarize students with ecological and human health effects of selected environmental problems, particularly those related to chemical contamination of and physical changes to water, air and soil. Two hours of lecture per week. Prerequisites: *Environmental and Resource Science 220* or *Environmental and Resource Science-Biology 202* or *Environmental and Resource Studies 250*. Coordinators: M. Havas, T. Hutchinson

*Environmental and Resource Science-Geography 396a*

Introduction to geographical information systems. (See Geography)

*Environmental and Resource Science 397a*

Air pollution chemistry. Sources, distribution and impacts of atmospheric pollutants are examined. The course addresses alternative scientific approaches in monitoring atmospheric pollution and modelling systemic responses. Emphasis will be on questions other than climatic change. Prerequisite: *Chemistry 120* or *113a/123b*.

W. Evans

*Environmental and Resource Science-Geography 398a*

Land resources assessment for land-use planning. This course examines the principles, approaches and techniques for the assessment of land resources necessary to formulate optimal land-use plans. Land is assessed for potential use by field surveys, mapping and inventories of landforms, soils, climate, vegetation and existing use. The quantitative and digital manipulation of data sets and their interfaces to Geographical Information Systems are emphasized in this course.

Prerequisites: *Environmental and Resource Science 220* or *Geography 201*. Two hours of lecture, tutorials and two laboratories weekly.

R. Ponce-Hernandez

*Environmental and Resource Studies 399a*

Introduction to environmental law. Students will be provided with a comprehensive overview of environmental law in Canada. In particular, the course will examine the key environmental laws and policies at the provincial, federal and international level. Prerequisite: *Environmental and Resource Science 100*, and minimum of ten university credits. Two hours of lecture/workshop weekly.

Staff

*Environmental and Resource Studies-Science 401/402*

Thesis: This is a major research project combining one credit for Environmental and Resource Studies/Science and one for the other discipline in a joint-major (*ER/ES 401*), or counting as two credits for Environmental and Resource Studies/Science (*ER/ES 402*). This project course requires permission of the ERS Chair and a minimum average in ERS credit courses of 75%. It is anticipated that most honours students will not do a thesis. Candidates for the thesis course that begins in September should normally have applied for entry by the previous May 1st. Acceptance for the thesis course is dependent upon the candidate having made arrangements with a suitable ERS supervisor. Students are required to attend a regularly scheduled two-hour workshop in which techniques and approaches to thesis research are presented and discussed.

D. Holdsworth

*Environmental and Resource Science-Biology 403b*

Research design and data analysis. (See Biology)

*Environmental and Resource Science-Geography 404a*

Hydrochemical fluxes in the hydrosphere. (See Geography)

*Environmental and Resource Science-Biology-Geography 406a*

The geochemistry of natural waters. This course is a graduate level course open to a limited number of fourth-quarter students with appropriate qualifications. The course will examine the chemical and physical properties of water, snow and

ice. An emphasis will be placed on those parameters which influence the distribution of biota, nutrients and contaminants in the aquatic environment. Topics for discussion will include the hydrologic cycle, the carbonate system and pH control, weathering and water chemistry, redox equilibria, hydrologic transport, and the properties of snow and ice. Prerequisites: students contemplating taking this course should have at least two chemistry courses and two of the following aquatic science courses - *ES-Biology 304, Biology 305, ES 350 or ES 370*. Permission of the instructor is required prior to registration. Lecture and seminar weekly.

*R.D. Evans*

*Environmental and Resource Science-Biology-Geography 407b*

The fate of contaminants in the aquatic environment. Prerequisites: *Geography-Biology-Environmental and Resource Science 406a*. (Not offered in 1994-95.)

*Environmental and Resource Science 412a*

Environmental health. This course will be an analysis of the mechanisms and factors involved in the development of human cancer as it relates to the environment. It will examine environmental carcinogenesis as it relates to exposure to chemical and physical agents, as well as carcinogenesis related to "life-style" factors. The course covers some of the principles of cancer epidemiology and risk analysis. We will also examine the stages in development and the properties of cancer cells. Specific cancers (e.g. lung and bladder cancers, leukemias) with environmental etiologies will be examined in detail. Prerequisite: *Environmental and Resource Science 220 and Biology 100. Biology 203* is highly recommended.

*C. Metcalfe*

*Environmental and Resource Studies-Politics 460*

Public policy. (See Political Studies).

*Environmental and Resource Studies-Science 485, 486a, 487b, 488c*

Field course. Courses are offered through the Ontario Universities Program in Field Biology.

*Environmental and Resource Studies-Science 490, 491a, 492b, 493c*

Reading course. This is a research course on a specific topic. The course is only open to ES majors or joint-majors with a B average (or better) in ERS courses. Written permission must be obtained from

appropriate instructor and ERS Chair prior to early registration.

In addition to these individually arranged courses one option will be available in 1994-95:

*Environmental and Resource Studies-Canadian Studies 4901*

Bioregionalism: the Otonabee River watershed, Haliburton section. Ecology, history and culture; sustainable development; appropriate technology; regional planning. Permission of instructor required prior to pre-registration.

*J. Wadland, T. Whillans*

*Environmental and Resource Studies-Science 495, 496a, 497b, 498c*

Special topics. These are either experimental courses or courses which are offered on a temporary basis. The following are offered in 1994-95:

*Environmental and Resource Science 496b*

Ecosystem response to changes in the hydrosphere. The course will examine the responses of biological communities to stress in the biological, physical and chemical components of aquatic ecosystems. Seminars and readings in the first part of the course will provide a general background for considering a case study of a specific problem. Socio-economic aspects of development will also be addressed, as they affect the specific case study. No prerequisites. Prospective students should contact the ERS Program office.

*Staff*

*Environmental and Resource Science-Geography 497b*

Geographical information systems: principles and applications. (See Geography)

*Environmental and Resource Science 498b*

Climatic change. This course will examine the meteorological principles, measurements and models that are the basis of current understanding of climatic change. It addresses in particular, the biological impacts of climatic changes and the ways in which these biological changes might affect human resources and the process of climatic change itself. Prerequisite: *Environmental and Resource Science 100 or Geography 101 or Physics 100 or Biology 150*; minimum of 10 university credits. Two hours of lecture weekly.

*W. Evans, T. Hutchinson*

*Environmental and Resource Studies 499b*  
Advanced environmental law and policy.  
This course is intended to provide students  
with a practical and detailed examination  
of the enactment, enforcement and  
limitations of environmental law and  
policy. The course will emphasize  
Ontario's environmental regime,  
and will focus on a recent case study.  
Prerequisites: students must have ten  
university credits. *Environmental and  
Resource Studies 397a* (Introduction to  
environmental law) is recommended.  
*Staff*

### Support Courses

#### Arts

*Administration 410*: Management theory  
*Administration 420*: Professional ethics  
*Canadian Studies 370*: Science policy  
*Comparative Development 250*:  
Technology and development  
*Comparative Development 400*:  
Modernity and development  
*Computer Studies 100, 101a/102b/150b,*  
or *202a/203b*

*Economics 101a/b, 102a/b*: Introductory  
microeconomics/macroeconomics

*Economics 260a*: Canadian economic  
growth and development I: up to 1929  
*Economics 261b*: Canadian economic  
growth and development II: after 1929  
*Economics-Comparative Development  
330 or 332b*: Economics of developing  
countries

*Geography 101*: Human and physical  
environments

*Geography 303a*: Statistical applications  
in geography

*Mathematic-Statistics 150*: Introduction  
*Native Studies 150a, 151b*: Community  
development

*Philosophy 105*: Practical reasoning

*Political Studies-Comparative  
Development 450*: Problems of  
underdevelopment

*Political Studies 321*: International law  
and organization

*Sociology 496a*: Science, technology  
and society

*Sociology 497b*: Social change and  
recovering nature

#### Science

*Biology 100, 150 or 101*

*Biology 305*: Limnology

*Biology 314a*: Fish

*Biology 321a*: Plant ecology

*Biology 328b*: Stress ecology of plants

*Biology 339a*: Wildlife

*Biology 350b*: Biogeography

*Chemistry 120 or 130, 103a/113a or  
113a/133b*

*Chemistry 210a/230b*: Organic,  
Biochemistry

*Chemistry 240a*: Analytical chemistry

*Chemistry 341b*: Instrumental analysis

*Computer Studies 100, 101a/102b/150b or  
202a/203b*: Introduction

*Geography 245*: Climatology

*Geography 341a/b*: Climatic change

*Geography 356a*: Pedology

*Mathematics 110*: Calculus

*Mathematics-Statistics 150*: Elementary  
statistics

*Mathematics-Computer Studies 351*:  
Linear statistical models

*Physics 100*: Elementary physics

*Science 350*: Communicating science

### Four-hundred Series

Approval may be given for other courses,  
not in the above lists, to be taken as  
support courses in a single- or joint-major  
Honours program.

## Geography

*Professor and Chair of the Department*  
F.M. Helleiner, M.A., PH.D. (WESTERN  
ONTARIO)

### Professors

W.P. Adams, B.A. (SHEFFIELD), M.S.C.,  
PH.D. (MCGILL) (on leave); A.G. Brunger,  
B.S.C. (SOUTHAMPTON), M.S.C. (ALBERTA),  
PH.D. (WESTERN ONTARIO) (on leave  
1994-1995); J.G. Cogley, M.A. (OXFORD),  
M.S.C., PH.D. (MCMASTER); J.S. Marsh, B.A.  
(READING), M.S.C. (ALBERTA), PH.D.  
(CALGARY) (on leave Winter Term 1995);  
G.A. Nader, B.A. (LONDON), PH.D. (DURHAM)  
(on leave 1994-1995); C.H. Taylor, M.A.  
(CANTERBURY), PH.D. (MCGILL)

### Associate Professors

J.M. Buttle, B.A. (TORONTO), PH.D.  
(SOUTHAMPTON); P.M. Lafleur, B.S.C.  
(BRANDON), M.S.C. (TRENT), PH.D.  
(MCMASTER)

### Assistant Professor

R. Ponce, B.ENG., M.S.C. (CHAPINGO), D.PHIL.  
(OXFORD)

### NSERC Women's Faculty Award Holder

C.L. McKenna Neuman, M.S.C. (GUELPH),  
PH.D. (QUEEN'S)

### Technicians/Demonstrators

M.A. Ecclestone, B.S.C. (TRENT), M.S.C.  
(GUELPH); D.M. Scott, B.A. (SAINT MARY'S),  
M.A. (WESTERN)



*Conjunct Assistant Professor*  
K. Beesley, B.E.S., PH.D. (WATERLOO)

### Required Courses

The single-major Honours program consists of twenty courses. Minimum ten courses in Geography including:

*Geography 101*

201

411a/b

303a

the equivalent of one full course from among: 231b, 245, 250, 263a, and 271a (and former 220 or 270)

and one of 401, 402, 440, 470

Highly recommended: *Geography 486a, 487b, 488c.*

Joint-major Honours program. Minimum eight courses in Geography. Same required and recommended courses as for single-major Honours program.

Single-major General program. Minimum six courses in Geography, including:

*Geography 101*

201

the equivalent of one full course from among 231b, 245, 250, 263a, and 271a (and former 220 or 270)

Highly recommended: *Geography 411a/b* and *Geography 303a* and *Geography 486a, 487b, 488c.*

Joint-major General program. Minimum five courses in Geography. Same required and recommended courses as for single major.

Students should note that, because most *three-hundred* series courses are offered only in alternate years, they should plan their courses well in advance. It is possible to take certain *three-hundred* series courses after *Geography 101* and most *four-hundred* series courses after *Geography 201.*

### Recommended Courses

The attention of students in Geography is drawn to *Mathematics 100, Mathematics-Statistics 150, Philosophy 105, Science 350, and Computer Studies 101a, 202a.*

Students intending to teach are advised to include a regional course. Geography of Canada (*Geography 361*) and Geography of the polar regions (*Geography 364a/b*) are particularly useful. The Canadian Studies, Computer Studies, Environmental and Resource Studies, and Comparative Development Studies programs can complement a Geography program.

### Note:

In order to be eligible to graduate with a B.Sc. degree, a student must have completed a Grade 13/Ontario Academic Course in Mathematics, or equivalent, or a university *one-hundred* level Mathematics course.

Students with an interest in Applied Geography are urged to consider the following Diploma programs offered by the School of Natural Resources, Sir Sandford Fleming College (Lindsay): Geographic Information Systems Technology and Cartography Technology. Students wishing to complete an Emphasis in Geographical Information Systems (GIS) are advised to consult the appropriate section of the Calendar for information about incorporating the GIS Applications Specialist Certificate from Sir Sandford Fleming College into the Honours Program at Trent.

### *Geography 101*

Human and physical environments. Serves to indicate the scope and methods of geography. A survey of environmental systems, human interactions with them, and the use of distinctive areas on Earth. Emphasis on concepts, problems, research methods, and Canadian examples.

Approximately four hours weekly, lecture, films, laboratory exercises, field project.

*J.M. Buttle and staff*

### *Geography 201*

Methods of geographical analysis. The course describes quantitative techniques of investigation in geography. Commonly used statistical tools are explained. Data retrieval methods include remote sensing and forms of terrestrial survey. Cartographic and other representational techniques are presented. Prerequisite: *Geography 101.* Three hours weekly, lectures, tutorials and laboratory classes. Field work.

*J.M. Buttle, P.M. Lafleur*

### *Geography-Anthropology-Classical Civilization 223a*

The ancient city. (See Classical Studies)

### *Geography 231b*

Recreation geography methods. Examines methods for determining the historical geography of recreation, the demand for recreation, the supply of land, facilities and services for recreation, and the economic, environmental and social impacts of tourism. (Excludes *Geography 334*) Prerequisite: *Geography 101.* Lecture and seminar weekly.

*Geography-Science 240*

Geology. Open to students in second year and above, and to first-year students with permission of the instructor. (Not offered this year.)

*Geography 245*

Climatology. Study of the elements of weather and climate; global and local energy and water balance regimes; climate change and classification. Prerequisite: *Geography 101* or *Environmental and Resource Studies 100*. Three hours of lectures, laboratories and seminars per week, and field work.

*P.M. Lafleur, J.G. Cogley*

*Geography 250*

Geomorphology. Geomorphic processes and landscape evolution. Running water, ice, and other landforming agents. Geometrical and mechanical explanation of forms and processes. The imprint of the Ice Ages. The physical landscape and its problems for man. Prerequisite: *Geography 101* or *Environmental and Resource Studies 100*. Three hours weekly; lectures, laboratories, and field work.

*J.G. Cogley*

*Geography-Canadian Studies 263a*

Historical geography. Geography of North America before 1800, emphasizing early Canada. Themes pursued include exploration, environmental perception, resource exploitation, colonial settlement, urbanization, and regional development. Particular attention is paid to the geography of the northern imperial possessions of France and England in what is now Canada. (Excludes *Geography 330*) Prerequisite: *Geography 101*. Lecture and tutorial weekly, field work.

*Geography 271a*

Introductory urban geography. The nature of urban geography; the historical development of urban systems, emphasizing Canada; the location, size, function, and spacing of cities at national and regional levels; regional planning and development. (Excludes *Geography 270*) Prerequisite: *Geography 101*, or *Economics 101a/b* and *Economics 102a/b*, or *Sociology 100*. Lecture and seminar weekly.

*Geography 303a*

Statistical applications in geography. A survey of some of the more important statistical techniques used in geography with particular emphasis on

computer-based analysis. Computer packages such as SPSS and SAS will be used in the application of these techniques to geographical data. Among the analytical techniques to be covered are correlation, regression, chi square, analysis of variance, factor analysis, and non-regression models. Prerequisite: *Geography 201* or *Mathematics-Statistics 150*. Lecture and laboratory weekly. *Geography 303a* is a prerequisite for *Geography 401/402* and is required for honours graduation.

*R. Ponce*

*Geography-Canadian Studies 332b*

Settlement geography. Process, patterns, and forms of human settlement, with special reference to North America and Europe; explanation and interpretation of the evolution and geographical location of rural settlement at continental, regional, and local scales. Prerequisite: *Geography 201* and *263a* as a pre- or co-requisite. Lecture and tutorial or laboratory weekly, field work. (Offered this year and in alternate years.)

*Geography-Canadian Studies-Environmental and Resource Studies 333a*

Wilderness resources. An examination of the wilderness concept and the history, planning, and management of wilderness resources with special reference to national parks and Canada. Prerequisite: *Geography 201* or *Geography 231b* or *Environmental and Resource Studies 200* or *Environmental and Resource Studies 250*. (Offered this year and in alternate years.)

*J.S. Marsh*

*Geography 337a*

Recreation geography issues. Excludes *Geography 334*. Prerequisite: *Geography 231a/b*. (Offered in alternate years, but not this year.)

*Geography 341a*

Climatic change. Mechanisms and patterns of changes in weather and climate, both natural and anthropogenic. An understanding of the principles of general circulation, global and local energy balance models, and basic meteorological processes is assumed. Prerequisite: *Geography 245*. Lectures, tutorials and exercises. (Offered this year and in alternate years.)

*J.G. Cogley*

*Geography 342b*

Hydrometeorology - snow and ice. Study of geographical aspects of ice

with particular reference to its role in hydrometeorological processes. Treatment of falling snow, snowcover, lake ice, glacier ice. Pre- or co-requisite:

*Geography 245*. One lecture per week, and one laboratory bi-weekly, leading to a field trip in the reading week. (Offered this year, and in alternate years.)

*P.M. Lafleur*

*Geography 351a*

Glacial and Quaternary geomorphology. Prerequisite: *Geography 250* or *Geography-Science 240*. (Offered in alternate years, but not this year.)

*Geography 353a*

Hydrology. Prerequisite: *Geography 245*. (Offered in alternate years, but not this year.)

*Geography 354b*

Fluvial geomorphology. Morphology of rivers and river systems; relationships between process and form. Erosion, transportation and deposition of sediments; channel morphology, the drainage basin as a geomorphic unit; human impact on river morphology. Prerequisite: *Geography 250* or *Geography-Science 240* or permission of instructor. Three hours of lectures, tutorials and laboratories weekly, field work. (Offered this year and in alternate years.)

*C.L. McKenna Neuman*

*Geography 355a/b*

Introduction to groundwater movement. Prerequisite: *Geography 353a* and *Mathematics 100* or equivalent. (Offered in alternate years, but not this year.)

*Geography 356a*

Pedology. The course will concentrate on the techniques employed in the analysis of the physical, hydrological, chemical, and biological properties of soils, as well as those processes which control the development of the soil. Prerequisite: *Geography 250* or *Geography-Science 240* or permission of instructor. Lectures, laboratories and field work. (Offered this year and in alternate years.)

*J.M. Buttle*

*Geography 357b*

Modelling applications in physical geography. Prerequisite: *Geography 201* and either *245* or *250* and *Mathematics 100*. (Offered in alternate years, but not this year.)

*Geography-Canadian Studies 361*

Geography of Canada. A problem-oriented course with a strong concentration for a short period on background knowledge, followed by a variety of themes and issues treated from a geographical perspective. Prerequisite: *Geography 101* or permission of instructor. Three hours or more weekly; lectures, seminars, tutorials, occasional field trips. Enrolment in this course is limited.

*F.M. Helleiner*

*Geography-Canadian Studies 363b*

Historical geography of Canada before 1900. Prerequisite: *Geography 263a*. Excludes *Geography 330*. (Offered in alternate years, but not this year.)

*Geography-Canadian Studies 364a/b*

Geography of the polar regions. Prerequisite: *Geography 101* or permission of instructor. (Not offered this year.)

*Geography-Canadian Studies 371b*

Urban planning. Prerequisite: *Geography 101* and *271a*. (Offered in alternate years, but not this year.)

*Geography 373b*

Advanced urban geography. The city as a system; historical perspectives on urban change; the internal organization of cities; social and economic patterns and processes within cities; contemporary urban geographic problems; urban planning. Excludes *Geography 270*. Prerequisite: *Geography 271a*. Lecture and seminar weekly.

*Geography-Canadian Studies 376a*

The urban-rural fringe. The course is primarily concerned with the urban-rural land use conflicts occurring in the areas surrounding major cities, the problems arising from these conflicts, and the types of policy required to resolve them. A particular focus will be the impact of urbanization on the countryside in Canada. Prerequisite: *Geography 101*, or *Economics 101a/b* and *Economics 102a/b*, or *Sociology 100*. Lecture and seminar weekly. (Offered this year and in alternate years.)

*Geography 380b*

Regional economic development. Prerequisite: *Geography 101* or permission of instructor. (Not offered this year.)

*Geography 390, 391a, 392b, 393c*

Reading course. Prerequisite: *Geography 101*. (Offered only if instructor is available.)

*Geography 395, 397b*

Special topic in geography. (Offered only if instructor is available.)

*Geography-Environmental and Resource Science 396a*

Introduction to Geographical Information Systems. The course examines the fundamental concepts and principles of Geographical Information Systems (GIS). The components, capabilities, and main operations of GIS are described. The essentials of spatial data structures and data bases, data capture, storage, retrieval, manipulation, and spatial modelling are examined, together with GIS applications and products. The course has a very strong component of laboratory exercises with different spatial data structures to provide hands-on experience. Prerequisite: *Geography 201*, or *Environmental and Resource Science 220*, or *Computer Studies 100*, or *101a* and *102b/150b*. An intermediate level of PC-based experience is essential. Lectures and laboratory weekly. Enrolment limited to 20 students. *R. Ponce*

*Environmental and Resource Science - Geography 398a*

Land resources assessment for land-use planning. (See *Environmental and Resource Studies*)

*Geography 401, 402*

Honours thesis. Students will engage in a major research project entailing periodic meetings with faculty. Seminar presentations in Fall and Winter terms on research. Students taking this course are strongly encouraged to obtain full details of it and begin preparation prior to registering for the course. *Geography 402* is double-credit in Geography. *Geography 401* is single-credit involving the same thesis as submitted to the other department/program in a joint-major. Prerequisite: *Geography 303a*, two other three-hundred level Geography course equivalents, and a 70% average in Geography courses. Instructor's permission required at time of pre-registration. *J.M. Buttle*

*Geography 404a*

Hydrochemical fluxes in the hydrosphere. Prerequisite: *Geography 201* and permission of instructor. (Not offered this year.)

*Geography-Computer Studies 405b*

Geographical computer graphics. Prerequisite: *Geography 201* or an equivalent methodological course, *Computer Studies 202a*. Note: Open to students in third quarter. (Not offered this year.)

*Environmental and Resource Science-Biology-Geography 406a*

The geochemistry of natural waters. This course is a graduate-level course open to a limited number of fourth-quarter students with appropriate qualifications. Prerequisite: students contemplating taking this course should have at least two chemistry courses and two of the following aquatic science courses - *ES-Biology 304*, *Biology 305*, *ES 350* or *ES 370*. Permission of the instructor is required. Lecture and seminar weekly. (See ERS) *R.D. Evans*

*Environmental and Resource Science-Biology-Geography 407b*

The fate of contaminants in the aquatic environment. This course is a graduate-level course open to a limited number of fourth-quarter students with appropriate qualifications. Prerequisite: *Geography-Biology-ERS 406a*. (Not offered this year.) (See ERS)

*Geography 411b*

Philosophy of geography. The evolution of geographical ideas, particularly concepts of place, region, environment, or organization of space by nature and by society; philosophy of science and history; ethical issues, academic and social prejudice in geographical studies, radical geography. Prerequisite: *Geography 201*. Note: Open to students in third quarter. *Geography 411a/b* is required for honours graduation.

*Geography 440*

Research in physical geography. A seminar course on themes, methodologies and approaches of current major interest. Individual presentations based on directed readings and study. Prerequisite: two of *Geography 341a*, *342b*, *351a*, *353a*, *354b*, *355b*, *356a*, *357b*, *486a/b*. Three hours, fortnightly in alternate weeks to *Geography 470*. *C.H. Taylor*

*Geography 470*

Research in human geography. A seminar course on themes, methodologies and approaches of current major interest. Individual presentations based on directed readings and study. Prerequisite: two of

*Geography 332a/b, 333a/b, 337a/b, 363b, 371a/b, 373b, 376a/b, 380a/b, 486a/b.*

Three hours, fortnightly in alternate weeks to *Geography 440*.

*F.M. Helleiner*

*Geography 486a*

Field course in geography. This course is highly recommended for all Geography majors, and may be taken in the third or fourth quarter. It involves an extended period during the Fall or Winter Reading Break in the field area with extensive preparation and follow-up. Prerequisite: *Geography 201*. One lecture, and seminar per week. Minimum of six days in the field at cost to student.

*P.M. Lafleur*

*Geography 495, 496a, 498c*

Special topic in Honours Geography. Systematic and/or regional geography on themes, problems and questions of interest to individual faculty. Prerequisite: fourth quarter standing and permission of the instructor. (Offered only if instructor is available.)

*Geography-Environmental and Resource Science 497b*

Geographical Information Systems: principles and applications. This course examines the principles upon which the applications of Geographical Information Systems (GIS) are based. Advanced technical issues regarding data structures, georeferencing, spatial data bases and models, spatial analysis, and modelling are examined. The course concentrates on advanced algorithms for spatial analysis and spatial modelling and examines the use of remote sensing information in GIS for applications to environmental and urban problems. Contemporary issues such as error propagation and modelling, Spatial Decision Support Systems, and Expert Systems in GIS are also analyzed. Central to this course are, in addition to a few introductory laboratory exercises, the formulation, execution, and completion of a complete GIS application project with real data, in one of the main areas of GIS applications. Prerequisite: *Geography-Environmental and Resource Science 396a*. Lectures and laboratory work weekly. Enrolment limited to 20 students.

*R. Ponce*

## History

*Associate Professor and Chair of the Department*

*J. Sangster, B.A. (TRENT), M.A., PH.D. (MCMMASTER)*

*Professors Emeriti*

*F.A. Hagar, A.B. (HARVARD), M.A., PH.D. (CALIFORNIA-BERKELEY), M.LITT. (CAMBRIDGE); A. Wilson, M.A. (DALHOUSIE), PH.D. (TORONTO)*

*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); B.W. Hodgins, B.A. (WESTERN ONTARIO), M.A. (QUEEN'S), PH.D. (DUKE); E.H. Jones, B.A. (SASKATCHEWAN), M.A. (WESTERN ONTARIO), PH.D. (QUEEN'S); D. McCalla, B.A. (QUEEN'S), M.A. (TORONTO), D.PHIL. (OXFORD); J.S. Milloy, B.A. (ST. PATRICK'S), M.A. (CARLETON), D.PHIL. (OXFORD); P.M. Morton, M.A., PH.D. (TORONTO) (on leave 1994-95); S.T. Robson, B.A. (BRITISH COLUMBIA), D.PHIL. (OXFORD) (on leave 1994-95); S.D. Standen, B.A. (BRITISH COLUMBIA), M.A. (OREGON), PH.D. (TORONTO); J.E. Struthers, M.A. (CARLETON), PH.D. (TORONTO); J. Syrett, B.A. (COLUMBIA), M.A., PH.D. (WISCONSIN) (on leave 1994-95); K. Walden, M.A., PH.D. (QUEEN'S)*

*Associate Professors*

*J.N. Jennings, B.A. (TORONTO), M.A. (CALGARY), PH.D. (TORONTO); P.T. Zeleza, B.A. (MALAWI), M.A. (LONDON), PH.D. (DALHOUSIE)*

*Assistant Professors*

*O. Andriewsky, B.A. (BROWN), M.A., PH.D. (HARVARD); I. Eibl, M.A. (CHARLES), M.A., PH.D. (TORONTO); D. Sheinin, B.S.C. (TORONTO), M.A., PH.D. (CONNECTICUT)*

*Lecturer*

*C. Kay, B.A. (TORONTO), M.PHIL. (OXFORD)*

*University Librarian*

*M.W. Genoe, M.A. (WATERLOO), M.L.S. (WESTERN ONTARIO), M.PHIL. (WATERLOO)*

*Adjunct Faculty*

*M. Eibl, M.A. (CHARLES), M.A. (TORONTO); S.D. Grant, M.A. (TRENT); N. Thornton, B.A. (TRENT), B.ED. (OTTAWA), PH.D. (ADELAIDE); R.A. Wright, B.A. (TRENT), M.A., PH.D. (QUEEN'S)*

**Required Courses**

The single-major Honours program consists of nineteen courses. Minimum nine History courses: *History 100, 120 or 170*, two *two-hundred* series courses, three *three-hundred* series courses, plus four courses in the fourth quarter of the program, of which at least three must be *four-hundred* series courses. One course in the fourth quarter may be in a field other than History.

Joint-major Honours program. Minimum seven History courses: *History 100, 120 or 170*, two *two-hundred* series courses, two *three-hundred* series courses, plus at least two *four-hundred* series courses.

Single-major General program. Minimum six History courses: *History 100, 120 or 170*, two *two-hundred* series courses, and three *three-hundred* series courses.

Joint-major General program: Minimum five History courses: *History 100, 120 or 170*, two *two-hundred* series courses, and two *three-hundred* series courses.

**Special Provisos**

- Departures from patterns above must be authorized by the Department through the Chair.
- *One-hundred* series courses: Only one *one-hundred* series History course may be taken by first quarter students, and no more than two may be counted towards a degree. First quarter students wishing to take a second History course must obtain written permission from the Department Chair.
- There are no prerequisites for any History courses but History majors or joint majors normally are required to take *two-hundred* series courses before taking *three-hundred* series history courses.
- Students seeking admission to *four-hundred* series courses before entering the fourth quarter must apply to the instructor and their application must then be approved by the Chair.
- History majors and joint majors must complete, in addition to either *History 100, 120 or 170*, one course from each of the three lists below. Some courses appear in two lists and fulfil two requirements. Students considering a third-year abroad will simplify their program planning if they satisfy this requirement in their second year.

	I	II	III
	200	211	200
	205	221	205
	303	235	220
	311	254	320
	350	255	330
	360	270	335
	375	300	336
	380	301	340
		302	350
		303	351
		307	360
		308	370
		310	375
		311	380
		312	399
		316	
		345	
		347	

- in individual cases, with the approval of the Department, certain courses in Canadian Studies may be counted as History credits.
- With the permission of the Chair, a student may count one *two-hundred* or *three-hundred* series Classical History course, except *Classical History 201*, toward a History major.

**Enrolment limits**

Allocation of places in restricted enrolment courses will be by departmental preregistration, held before the deadline for submission of university CPS forms. Details of the procedure may be obtained from the Office of the Chair, History instructors, and College Offices after the Winter Reading Week. Information regarding the availability of places in all courses with enrolment limitations will be published in the Calendar Supplement in September.

*History 100*

Canada: selected problems critically examined. Not a survey, the course examines issues in Canada's social, political, intellectual, regional and economic history, with an emphasis on new interpretations. Weekly lectures and weekly tutorial.

*D. Standen and staff**History 120*

Western European history from the Middle Ages to the present. Subjects covered include feudalism, the Renaissance, the Enlightenment, the French Revolution, the 19th-century women's movement, the industrial revolution, the world wars, Nazism, the

Russian Revolution, the Holocaust, and Europe since 1945. Weekly lectures and tutorials.

*C. Kay and staff*

*History 170*

World history. The world's history since 1500, survey and analysis. The course focuses on how different continents and civilizations have shaped the global community and emphasizes the richness and diversity of the human experience. Weekly lectures and weekly tutorial.

*P.T. Zeleza and staff*

*History 200*

The expansion of Europe in the early modern era, 1450-1825. An exploration into the origins of the phenomenon of European global domination. Special emphasis is given to Europe's impact on the Americas, Africa and Asia, the impact of the wider world on European thought, economy, politics, and society, and the roots of international development and underdevelopment. Lecture weekly and tutorial fortnightly.

*I. Elbl*

*History 205*

The Medieval panorama: Selected topics (Christianity, sovereignty, lord and peasant, the marketplace, education, architecture, parliamentary government, famine, plague, and war) to illustrate the rise of the West European consciousness. Lecture and seminar weekly.

*History 211*

United States history. Social, economic and political developments from the American Revolution through the Civil War to 1920. Lecture and tutorial weekly.

*E. Jones, D. Sheinin and staff*

*History 220*

Europe from the Enlightenment through World War II. A study of problems in the development of modern Western society from various perspectives, using a variety of modern and contemporary sources. One and one-half hour lecture weekly; two-hour tutorial fortnightly.

*C. Greene and staff*

*History-Canadian Studies 221*

Modern Ontario. (See Canadian Studies)

*History-Canadian Studies 235*

Canada since 1914. This course examines the main currents in the development of Canada since 1914. The main theme is Canada's coming of age in such areas as foreign relations, Canadian-American relations, culture, an acceptance of

multiculturalism and the profound effects of the two World Wars. Other important topics include immigration, regionalism, the development of the North, the Americanization of Canada and the role of women in our society. Lecture and tutorial weekly.

*J. Jennings and staff*

*History-Canadian Studies 254*

Canada and the modern experience. The course explores some characteristics of modernity since 1890, with Canada as an example. Among the topics examined will be photography, travel, crime, new styles of business, government and educational organization, and changing attitudes toward sex, death and religion. Lecture and tutorial weekly.

*K. Walden and staff*

*History-Native Studies-Canadian Studies 255*

History of Indians of Canada. (See Native Studies)

*History-Native Studies-Canadian Studies 270*

History and politics of the Metis and non-status Indians of Canada. (See Native Studies)

*History-Canadian Studies 300*

Canada: communities and identities. (See Canadian Studies)

*History-Canadian Studies-Politics 301*

Canadian political culture, 1864 to the present. The history and politics of Canadian federalism are examined in the light of the sectionalism and biculturalism so evident in a country with the geographic size, diversity and historic duality of Canada. Occasional lectures and weekly tutorial.

*B. Hodgins*

*History-Canadian Studies 302*

Quebec since 1867. Economic, social and political development from a regional perspective. Industrial and urban growth; war, prosperity and depression; institutional change; the Quiet Revolution; nationalism; minorities; recent issues. Lecture and tutorial weekly.

*D. Standen*

*History-Canadian Studies 303*

Early French Canada. (Not offered this year)

*History-Canadian Studies 307*

The Atlantic Provinces. (Not offered this year.)

*History-Canadian Studies 308*

Business history: The Canadian experience in international perspective. Financial, technological, marketing, organizational and managerial strategies and structures which shaped the emergence of the modern corporation. The relationship of Canadian companies with the changing international business system. Lecture weekly and tutorial weekly.

*D. McCalla*

*History 310*

The American reform tradition, 1896-1941. (Not offered this year.)

*History 311*

Colonial and Revolutionary America, 1630-1800. An exploration of the social, economic, religious and intellectual aspects of political change in the thirteen colonies. Lecture weekly and tutorial fortnightly.

*E. Jones*

*History 312*

Contemporary United States. (Not offered this year.)

*History-Canadian Studies-Women's Studies 316*

Women in North America. Selected themes and topics about women from the seventeenth century to the present, with emphasis on the Canadian experience. Lecture weekly and tutorial fortnightly.

*J. Sangster*

*History 320*

Modern British history, from the Industrial Revolution to the era of Margaret Thatcher. Special emphasis on the Victorians, culture, class and gender, and the making of modern British society. Lecture weekly and tutorial fortnightly.

*History-Canadian Studies 324*

Canada: The North. The historical and contemporary Canadian North in both its arctic and sub-arctic contexts. Emphasis will be intellectual and social. Two-hour seminar and occasional lectures.

*History 330*

Modern German history, 1815 to the present. The cultural, social, economic and political history of the modern German nation, from the Restoration era to Germany's reunification in 1990. Lecture weekly and tutorial fortnightly.

*C. Kay*

*History 335*

The era of the First World War. (Not offered this year)

*History 336*

The era of the Second World War. (Not offered this year.)

*History-Comparative Development 340*

The emergence of modern Africa. Political, economic and social changes since 1800, with emphasis on internal and external factors. Lecture weekly and seminar fortnightly.

*P.T. Zeleza*

*History-Anthropology 345*

Slavery in the Americas: the American South, West Indies, and Latin America. (Support course for Comparative Development Studies) (Not offered this year.)

*History 347*

Survey of Latin American history from native communities in the generation before the Spanish Conquest to Central American revolutionary struggles in the 1980s. Topics will include native resistance, methods of colonial domination, slavery and other labour systems, the independence struggles, neo-colonialism, the formation of modern nation states, militarism, the roots of modern social unrest, and revolutionary change. Lecture and tutorial weekly.

*D. Sheinin*

*History 350*

Studies in the history of France, 1750-1914. Tutorials will emphasize the use of literature as an historical source. Weekly one-and-one half hour lecture and two-hour tutorial fortnightly.

*C. Greene*

*History-French 351*

La civilisation française. Offered in Nantes only. (See Modern Languages, French Section)

*History 360*

The Crusades from 1095 to the fall of Acre, 1291. (Not offered this year.)

*History 370*

Russian history from the thirteenth century to the present. Special emphasis on the evolution of autocracy, the nature of the historic challenges to political authority, Russian attitudes towards the "West", and the paradox of great power ambitions and economic backwardness. Lecture weekly, tutorial fortnightly.

*O. Andriewsky*

*History-Women's Studies 375*

A survey of British/European women's history with special emphasis on the medieval, Renaissance and early modern periods. Lecture and tutorial weekly.



*History 380*

Early modern Europe. (Not offered this year.)

*History 395*

Special topics. For details of offerings (if any), consult the Department and the Supplement to the Calendar.

*History 399*

Historians and history. A critical study of how historians have aimed to understand the past and found differing interpretations. The impact of new disciplines and social interests on history-writing today. Lecture and tutorial weekly.

*J. Barker*

*History-Native Studies 400*

Research seminar in Indian history. (See Native Studies).

*History-Canadian Studies 403*

History of Night. An introduction to contemporary approaches to cultural history through an investigation of witchcraft, crime, sexuality, entertainment and other themes related to nighttime.

*K. Walden*

*History-Canadian Studies 406*

Upper Canada, 1784-1867. The foundations of Ontario society; selected studies in cultural, social, and intellectual history. Seminar weekly.

*D. McCalla*

*History-Canadian Studies 407*

The Canadian-American frontier. The Canadian West from first contact between Europeans and Native People to the end of the settlement period in the early twentieth century. Special emphasis on Indian-White relations, exploration, the fur trade, the two rebellions, government policies for the West, the ranching and farming frontiers and the influx at the end of the nineteenth century of many new immigrant groups. Comparisons in a number of areas are made with the American West. Weekly seminars.

*J. Jennings*

*History-Canadian Studies 410*

Social and political traditions and ideas in Canada and the United States since 1896. (Not offered this year.)

*History 415*

The American South. (Not offered this year.)

*History 418*

The United States and the Vietnam War. (Not offered this year.)

*History-Canadian Studies 422*

Canada: The North. The historical and contemporary Canadian North in both its arctic and sub-arctic contexts. Emphasis will be intellectual and social. Two-hour seminar and occasional lectures.

*History-Canadian Studies-Native Studies 425*

The evolution of the Settlement Commonwealth. A comparative study of Canada, Australia, and New Zealand, with special emphasis on the relationship between the 'settlers' and the aboriginal peoples.

*B. Hodgins*

*History 440*

Aspects of modern history. A combination seminar-reading course. Theme in 1993-94 will be the modern urban experience.

*History 444*

African labour history. This course is concerned with the development of the labour process in African societies, and examines the nature of work and its transformation, the changing divisions of labour, the development of wage and non-wage labour, working class organization, conditions of employment and unemployment, and the relations between labour, capital and the state.

*P.T. Zeleza*

*History 445*

International history, 1919-1939. (Not offered this year.)

*History 447*

Topics in Latin American History - History of Mexico. Native communities in Pre-Columbian Mexico, the Spanish conquest, the long-range clash of native and non-native cultures, the Catholic Church, nation-building, foreign economic influences, ideologies of change, the Mexican Revolution, import substitution, and the entrenchment of authoritarian political structures. Weekly seminar.

*D. Sheinin*

*History 450*

The origins of capitalism. An examination of the changes in European thought, economy, politics, social structures, values and attitudes associated with the emergence of capitalism in the Middle Ages and the early modern period, with parallels to world history.

*I. Elbl*

*History 451*

The Enlightenment in Britain, France and America. An advanced study of intellectual development in the

seventeenth and eighteenth centuries, reviewing the course of scientific discovery and the new outlook's effect on areas of social and cultural importance.  
*J. Barker*

**History 465**

Reformation Europe. (Not offered this year.)

**History 472**

Social history of medicine. (Not offered this year.)

**History-Canadian Studies 475**

History of everyday life: a course in applied history. Theory, method and technique in research and interpretation of ordinary life in the past, with emphasis on Canadian themes. Weekly seminars and/or project meetings. Occasional field trips, one of which will be for two or three days during the Fall Reading Week. Field trip fee of \$85.

*E. Jones, D. Standen*

**History-Canadian Studies 476**

Studies in Canadian labour. (Not offered this year.)

**History-Canadian Studies 477**

Studies in Canadian social policy. (See Canadian Studies)

**History 490**

Reading course. Individual courses designed to provide opportunities for more intensive study of particular topics in areas of history offered by the Department. Open to undergraduates in the fourth quarter of the Honours program in History or by special permission. Prior consultation with relevant tutors is essential. Regular consultation during the year.

**History 4901**

German cultural history, 1871-1945. Reading seminar on the cultural history of modern Germany, with special attention paid to developments in visual art, literature, theater, film, and music from Imperial Germany to the Third Reich. This course investigates the strong links between German culture and German politics & society. Fortnightly seminar.

*C. Kay*

**History 495**

Special topic. The Department expects to offer some special topics courses in 1994-95. For details of offerings, consult the Department and the Supplement to the Calendar.

## Mathematics

*Professor and Chair of the Department*  
T.N. Murphy, B.Sc. (LIVERPOOL)

**Professors Emeriti**

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

**Professors**

I.C. Chakravarty, M.Sc. (GAUHATI), Ph.D. (SASKATCHEWAN); E.A. Maxwell, M.Sc., Ph.D. (TORONTO)

**Associate Professors**

G.F. Hamilton, B.A.Sc., M.A., Ph.D. (TORONTO), P.ENG.; J.P. Henniger, M.Sc., Ph.D. (MCGILL); D.G. Poole, B.Sc. (ACADIA), M.Sc., Ph.D. (MCMASTER)

**Assistant Professors**

S. Bilaniuk, B.Sc. (TORONTO), A.M., Ph.D. (DARTMOUTH); B. Zhou, B.S. (SHANGHAI), Ph.D. (SOUTH CAROLINA) (on leave 1994-95)

**Required Courses**

The single-major Honours program consists of twenty courses. Minimum eleven courses in Mathematics including:

*Mathematics 110 and 130*

*200, 205a and 206b*

*260, or both 251a and 252b*

*330, both 306a and 310b*

two *four-hundred* series Mathematics courses, and two additional *three-hundred* or *four-hundred* series Mathematics courses.

Joint-major Honours program. Minimum seven and one-half courses in Mathematics including:

*Mathematics 110 and 130*

*200, 205a or 206b*

*305b or 306a or 310b*

*330 or 260 or both 251a*

*and 252b*

one *four-hundred* series Mathematics course, and one and one-half additional *three-hundred* or *four-hundred* series Mathematics courses.

Single-major General program. Minimum six courses in Mathematics, including:

*Mathematics 110 and 130*

*200, 205a and 206b*

*305b or 306a or 310b*

one and one-half additional Mathematics courses at the *two-hundred* level or higher.

Joint-major General program. Minimum five courses in Mathematics, including: *Mathematics 110* and *130*

200, 205a or 206b  
305b or 306a or 310b

one additional Mathematics course at the two-hundred level or higher.

### Special Notes

A student having credit in *Mathematics 230* may not count *Mathematics 330*.

A student having credit in *Mathematics 300* may count neither *Mathematics 206b* nor *Mathematics 306a*. A student having credit in *Mathematics 301* may count neither *Mathematics 205a* nor *Mathematics 305b*.

#### *Mathematics 100*

Introductory calculus. A first course in calculus for those lacking a Grade 13/OAC calculus credit. Functions, limits and continuity, differentiation and integration and related applications. Not to be credited towards a major in Mathematics. Prerequisite: Grade 12 Advanced Mathematics. Not available to students with 60% or better in Grade 13/OAC calculus or with credit for *Mathematics 110*. Three lectures weekly, tutorial fortnightly.

#### *Mathematics 110*

Calculus of one variable. An examination of the concepts and techniques of calculus, with applications to other areas of mathematics and the physical and social sciences. Prerequisite: Grade 13/OAC calculus with at least 60% or equivalent, or *Mathematics 100*. Three lectures and one seminar weekly.  
*I.C. Chakravarty and staff*

#### *Mathematics 130*

Introduction to linear algebra. Vectors, systems of linear equations, matrices, vector spaces, linear transformations, eigenvalues. Selected applications. Prerequisite: A Grade 13/OAC Mathematics credit with at least 60%. Three lectures and one tutorial weekly.  
*S. Bilaniuk*

#### *Mathematics-Statistics 150*

A non-calculus-based introduction to probability and statistical methods. Data summary, elementary probability, estimation, hypothesis testing, comparative methods, analysis of variance, regression, nonparametric methods, introduction to elementary applications of statistical computing. Not credited toward Mathematics major requirements, nor available to students

enrolled in, or with credit for *Mathematics-Statistics 251a* or *Mathematics 110*. (See *Mathematics-Statistics 251a*) Three lectures weekly, two-hour problems session fortnightly.  
*E.A. Maxwell*

#### *Mathematics 200*

Calculus in several dimensions. Vector geometry, curves, surfaces in three dimensions. Partial differentiation and applications, multiple integrals. Differential equations, elementary properties of complex variables and infinite series. Prerequisite: *Mathematics 110*. Three lectures and one seminar weekly.

*J.P. Henniger*

#### *Mathematics-Physics 205a*

Differential equations. Separation of variables. Integrating factors. Linear differential equations. Applications to physical problems. Power series solutions. Prerequisite: *Mathematics 110*. Corequisite: *Mathematics 200*. Recommended: *Mathematics 130*. Four hours weekly.

*J.P. Henniger*

#### *Mathematics 206b*

Analysis. The real number system. Limits. Continuity. Differentiability. Mean-value theorem. Convergence of sequences and series. Uniform continuity. Prerequisite: *Mathematics 110*. Corequisite: *Mathematics 200*. Three hours weekly.

*D.G. Poole*

#### *Mathematics-Physics 211b*

Classical mechanics. (See Physics)

#### *Mathematics 225*

Introduction to geometry. Elements of Euclidean and non-Euclidean geometries stressing links to modern mathematical methods. Axiomatic systems. Geometric transformations and symmetry. Projective geometry. Prerequisite: Either *Mathematics 110* or *Mathematics 130*. Two lectures and one tutorial weekly.  
*D.G. Poole*

#### *Mathematics-Statistics 251a*

Probability and Statistics I: A calculus-based introduction to probability and statistics. Probability, expectation, probability functions and density functions. Reliability. Summarizing and presenting data. Introduction to linear regression. Estimation and hypothesis testing for means and proportions. Introduction to elementary applications of statistical computing software.

Prerequisite: *Mathematics 100* or equivalent. Three hours weekly.  
E.A. Maxwell

*Mathematics-Statistics 252b*  
Probability and Statistics II: A continuation of *Mathematics-Statistics 251a*. Functions of random variables. Moment generating functions, Joint, marginal and conditional probability functions and densities. Further estimation and hypothesis testing. Comparative methods, analysis of variance, normal regression, nonparametric tests. Applications of statistical computing software. Prerequisites: *Mathematics 110* or equivalent. *Mathematics-Statistics 251a* or equivalent. Three hours weekly.  
E.A. Maxwell

*Mathematics-Computer Studies 260*  
Discrete structures. Mathematics related to computer science including propositional logic, recursive functions, combinatorics, graphs and networks, Boolean algebras. Applications to languages, analysis of algorithms, optimization problems, coding theory, and circuit design. Prerequisite: *Mathematics 110* or *130*; or *Computer Studies 102b* together with one Grade 13/OAC credit in Mathematics. Two lectures and one tutorial weekly.  
D.G. Poole

*Mathematics-Physics 305b*  
Partial Differential Equations. An introduction to methods for the solution of partial differential equations. Fourier Analysis. Prerequisite: *Mathematics 205a*. Two lectures and one tutorial weekly.  
G.F. Hamilton

*Mathematics 306a*  
Complex Analysis. Functions of a complex variable, analytic functions, complex integrals, Cauchy integral theorems, Taylor series, Laurent series, residue calculus. Prerequisite: *Mathematics 200*. Two lectures and one tutorial weekly.  
I.C. Chakravarty

*Mathematics 310b*  
Metric Spaces. The Dedekind definition of the real numbers. Cardinality of sets of numbers. Completeness, compactness, the Heine-Borel theorem and connectedness in the context of metric spaces. Prerequisite: *Mathematics 206b*. Two lectures and one tutorial weekly.  
T.N. Murphy

*Mathematics-Physics 311b*  
Advanced classical mechanics.  
(See Physics)

*Mathematics 322*  
Number theory and related topics in algebra and analysis. Prerequisites: *Mathematics 110* and *130*. Three hours weekly. (Offered in alternate years, but not this year.)

*Mathematics 330*  
Algebra. An introduction to abstract algebraic structures. Groups, rings, integral domains, fields, lattices and Boolean algebras. Prerequisite: *Mathematics 130*. Two lectures and one tutorial weekly.  
T.N. Murphy

*Mathematics-Computer Studies 341*  
Linear and discrete optimization. Prerequisites: *Mathematics 130* and *Mathematics-Computer Studies 260*. (Not offered this year.)

*Mathematics-Computer Studies-Statistics 351*  
Linear statistical models. Regression analysis, analysis of variance and design of experiments. Computer solutions for multiple regression and analysis of variance problems with computer software such as MINITAB, SAS, SPSS-X. Prerequisite: *Computer Studies 102b* or *150b*, *Mathematics 110* or *130*, *Mathematics-Statistics 251a* (or *Mathematics-Statistics 150* with permission of instructor). Two hours weekly.  
E.A. Maxwell

*Mathematics-Science 380*  
History of mathematics. A study of the major currents of mathematical thought from ancient to modern times. Emphasis on the relationships between mathematics, science and society. Prerequisites: *Mathematics 110* and *130* or *Mathematics 110* and permission of the instructor. Second-year students wishing to take the course must have permission of the instructor. Three hours weekly. (Offered this year and in alternate years.)  
I.C. Chakravarty

*Mathematics 390*  
Reading-seminar course. Details may be obtained by consulting the Department.

**Four-hundred Series Courses**  
Prior to enrolling in any four-hundred series Mathematics course, a student must have completed either *Mathematics 306a* or *Mathematics 305b*. An information

meeting for students wishing to undertake the fourth quarter of the Honours degree will be arranged early in the Winter Term.

**Mathematics 405**

Logic and Computability. Prerequisites: *Mathematics 260, 330*, or permission of the instructor.

S. Bilaniuk

**Mathematics 411**

Introduction to mathematical modelling. Differential equations, ordinary and partial. Prerequisite: *Mathematics 305b*. Two to three hours weekly.

G.F. Hamilton

Depending on student demand and the availability of instructors, other four-hundred series offerings from:

**Mathematics 400**

Analysis. Prerequisites: *Mathematics 130, 200, 306a, 310b*.

**Mathematics 425**

Differential Geometry. Prerequisite: *Mathematics 206b*. Recommended: *Mathematics 310b*.

**Mathematics 430**

Algebra. Prerequisite: *Mathematics 330*.

**Mathematics 435**

Topology. Prerequisite: *Mathematics 310b*.

**Mathematics 470**

Dynamical systems, chaos and fractals. Prerequisites: *Mathematics 130, 205a, 206b*. Recommended: *Mathematics 310b*.

**Mathematics 490**

Reading-seminar course. Details may be obtained by consulting the Department.

The following courses are not offered this year but may be available next year:

**Mathematics 441**

Numerical analysis. Prerequisite: *Mathematics 341*.

**Mathematics-Statistics 451a**

Sampling theory. Prerequisites: *Mathematics 251a, 252b*.

**Mathematics-Statistics 452b**

Theory of inference. Prerequisites: *Mathematics 251a, 252b*.

**Mathematics 460**

Combinatorics and graph theory. Prerequisite: *Mathematics 260*. Recommended: *Mathematics 330*.

## Statistics

**Mathematics-Statistics 150**

A non-calculus-based introduction to probability and statistical methods. (See Mathematics)

**Mathematics-Statistics 251a**

Probability and statistics I. (See Mathematics)

**Mathematics-Statistics 252b**

Probability and statistics II. (See Mathematics)

**Computer Studies-Mathematics-Statistics 351**

Linear statistical models. (See Mathematics)

**Mathematics-Statistics 451a**

Sampling theory. (See Mathematics)

**Mathematics-Statistics 452b**

Theory of inference. (See Mathematics)



## Modern Languages and Literatures

### Chair of the Department

R.M. Garrido, LIC.DER., DR.DER.  
DR. FILOLOGIA (SEVILLA), M.A. (TORONTO)

### Associate Chair of French

J.-P. Lapointe, B.A. (R.M.C.), M.A. (MCGILL)

### Associate Chair of German

A.A. Krüger, STAATSEXAMEN (MÜNCHEN)

### Associate Chair of Spanish

R.M. Garrido, LIC.DER., DR.DER.  
DR. FILOLOGIA (SEVILLA), M.A. (TORONTO)

### Modern Languages 100

An introduction to the fundamental concepts of language. (Not offered this year.)

## French Studies Section

### Professor

P. Royle, M.A. (OXFORD), PH.D. (NATAL)

### Associate Professors

A.E. Franklin, M.A. (CAMBRIDGE, TORONTO), D.E.A. (MONTPELLIER) (on leave Winter Term); H.B. Lapointe, B.A. (BALDWIN-WALLACE), M.A. (MCGILL); J.-P. Lapointe, B.A. (R.M.C.), M.A. (MCGILL); Y. Thomas, B.A. (UQAM), M.A., PH.D. (MONTREAL) (Y.A.P. in Nantes)

### Assistant Professor

A. Germain-Rutherford, MAÎTRISE, D.E.A. (PROVENCE-AIX-MARSEILLE 1), DOCTORAT NOUVEAU (SORBONNE)

### Required Courses

The single-major Honours program consists of nineteen courses. Minimum ten courses in French including:

*French 110*

211

one full course equivalent of *French 233a/234b, 312a/313b, 331, 361*  
one of *French 250, 325, 383* (formerly 390)

four *four-hundred* series courses or their equivalent.

Joint-major Honours program. Minimum eight courses in French including:

*French 110*

211

one full course equivalent of *French 233a/234b, 312a/313b, 331, 361*  
one of *French 250, 325, 383* (formerly 390)

two *four-hundred* series courses or their equivalent.

Single-major General program. Minimum six courses in French, including:

*French 110*

211

one full course equivalent of *French 233a/234b, 312a/313b, 331, 361*  
one of *French 250, 325, 383* (formerly 390)

Joint-major General program. Minimum five courses in French. Same required courses as for single-major.

### Québec Studies Emphasis

Students who, in satisfying all of the current requirements for a degree, elect to take a total of three or more Québec courses, not counting *French 110* in their program, will be granted a B.A. in French (Québec Studies Emphasis).

Recommended courses for intending French majors: *Latin 100, Classical Literature 100, Philosophy 101* and courses in at least one other modern language.

### Year Abroad Program

Courses offered at Nantes in the Year Abroad Program are listed at the end of this section.

### Note:

In order to register in *two-hundred* and *three-hundred* series courses students must have attained a minimum grade of C- (60% or better) in the prerequisite indicated or in its equivalent.

Students who do not have prerequisite for courses listed below must have departmental permission to enrol in those courses.

### *French 100*

An intensive course in oral and written French for students who do not have Ontario Grade 13/OAC French or their equivalent. Four hours weekly. Not credited toward French major requirements. (May not be taken concurrently with or subsequent to any other French course.)

A. Germain-Rutherford

### *French 101a/b*

#### *Oral French - Level 1*

This course will focus on developing functional oral skills through the integrative use of authentic audiovisual resources and different types of communicative situations. Two seminars and one lab weekly. Prerequisite: one OAC French or equivalent and completion of a placement test; or a mark of C- 60% or better in Trent *French 100*. Not

credited towards French Major requirements. (May not be taken concurrently with *French 100* or *French 110*.)

A. Germain-Rutherford and staff

*French 103alb*

*French Composition - Level 1*

This course will explore different types of writing and review grammatical concepts in order to develop skills in composition through writing exercises. Two seminars weekly. Prerequisite: one OAC French or equivalent and completion of a placement test; or a mark of C- 60% or better in Trent *French 100*. Not credited towards French Major requirements. (May not be taken concurrently with *French 100* or *French 110*).

A. Germain-Rutherford and staff

*French 105*

Grammar review, comprehension, conversation. (Not offered this year.)

*French 110*

Introduction to the critical analysis of French Literature and development of writing and pronunciation skills. This course is required of students intending to major in French. Four hours weekly: Lecture and a weekly seminar on French Literature, composition seminar and lab. Prerequisite: OAC French or equivalent; or a grade of C- 60% or better in *French 101alb* and *French 103alb*.

P. Royle and staff

*French 201alb*

*Oral French - Level 2*

This course will focus on developing: 1) advanced functional oral skills in French, 2) an awareness of the socio-cultural aspects of oral French, 3) an awareness of national and regional varieties of spoken French. Two seminars weekly. Credited towards French Major requirements. Prerequisite: completion of a placement test or a grade of C- 60% or better in *French 101alb* or *French 110*.

A. Germain-Rutherford and staff

*French 203alb*

*French Composition - Level 2*

Exploring advanced forms of writing (reports, argumentative writing, fiction) through writing and rewriting exercises. Complete review of grammar. Two seminars weekly. Credited towards French Major requirements. Prerequisite: completion of a placement test or a grade of C- 60% or better in *French 103alb* or *French 110*.

A. Germain-Rutherford and staff

*French 205*

Advanced oral and written French. (Not offered this year.)

*French 211*

Le théâtre classique français. Required for a Major in French. Prerequisite: *French 110*. Lecture and seminar weekly.

H.B. Lapointe

*French 233a*

Le théâtre français du dix-neuvième siècle. (Not offered this year.)

*French 234b*

Le théâtre français du vingtième siècle. (Not offered this year.)

*French-Canadian Studies 250*

La civilisation québécoise. A general survey of the social and cultural history of the Québec people, illustrated by readings on the arts, letters, religious, social and political life. Prerequisite: *French 110* or permission of the instructor. Lecture and seminar weekly.

J.-P. Lapointe

*French 305*

An introduction to the techniques of translation (theory and practice). Two hours weekly. Prerequisite: *French 201alb* and *French 203alb*.

*French 312a*

Le roman français du dix-neuvième siècle. Prerequisite: *French 110*. Lecture and seminar weekly.

H.B. Lapointe

*French 313b*

Le roman français du vingtième siècle. Prerequisite: *French 110*, *French 312a*. Lecture and seminar weekly.

P. Royle

*French-Canadian Studies 325*

Théâtre et poésie du Québec. (Not offered this year.)

*French 331*

La pensée française. (Offered only in Nantes.)

*French-History 351*

La civilisation française. (Offered only in Nantes.)

*French 361*

La poésie française. A survey of French poetry from the 16th to the 20th centuries. Prerequisite: *French 110*. Lecture and seminar weekly.

P. Royle and staff

*French-Canadian Studies 383*

Le roman québécois. (Not offered this year.)

*Four-hundred* series courses are normally open only to students in the fourth quarter of the Honours program in French.

**French 400**

Linguistique, stylistique et sémantique. Two hours weekly.

*H.B. Lapointe*

**French 401**

Initiation à la recherche littéraire. Single credit thesis course. Two hours weekly. Prior consultation with Chair and approval of Section required.

**French 402**

Recherche littéraire approfondie. Double credit thesis course. Four hours weekly. Prior consultation with Chair and approval of Section required.

**French 410**

Langue et littérature du Moyen Age. (Not offered this year.)

**French 420**

La critique littéraire. (Not offered this year.)

**French 440**

La Renaissance française. (Not offered this year.)

**French 4951**

Special topic in Québec Literature. Topic for 1994-95: L'oeuvre de Jacques Poulin. Prerequisite *French 383* or permission of the instructor.

*J.-P. Lapointe*

**French 4952**

Special topic in French Linguistics. Topic for 1994-95: Vers une approche autonome de l'apprentissage du Français Langue Etrangère/Français Langue Seconde. Auto-apprentissage et Auto-évaluation.

*A. Germain-Rutherford*

**French 4953**

Special topic in French Literature. Topic for 1994-95: Simone de Beauvoir romancière. Prerequisite: *French 312a*, *French 313b* or permission of the instructor.

*H.B. Lapointe*

**Year Abroad Program**

Normally, in order to be eligible to study for a year at the University of Nantes, for Trent credits with a Trent/Waterloo professor, a student must achieve a minimum of a B- average on all Trent courses (or equivalent courses) and a B+ standing in *French 110* or equivalent. Enrolment is limited to 15 students from Trent. Honours candidates are especially encouraged to spend a year at Nantes.

For further details, please consult the Section Chair.

Courses to be offered in 1994-95 at Nantes either by Trent University Professor Y. Thomas, or by the University of Nantes faculty are:

*French 233a*: Le théâtre du dix-neuvième siècle.

*French 234b*: Le théâtre du vingtième siècle.

*French 312a*: Le roman du dix-neuvième siècle.

*French 313b*: Le roman du vingtième siècle.

*French 351*: La civilisation française.

*French 331*: La pensée française.

*French 361*: La poésie française.

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## German Studies Section

*Professors Emeriti*

G. Baumgaertel, M.A. (BROWN), DR. PHIL. (TÜBINGEN); D.D. Stewart, M.A., PH.D. (TORONTO)

*Associate Professors*

J.C. Fewster, M.A. (MANCHESTER); A.A. Krüger, STAATSEXAMEN (MÜNCHEN)

**Note:**

Students who entered *German 105* in 1992-93 can obtain a joint Honours degree in German Studies within the period ending 1995-96. Students who entered *German 100* in 1992-93 and all students entering *German 100* and *German 105* from 1993-94 onwards can obtain a joint-major General degree in German Studies by completing courses a) at Trent alone or b) at Trent and within the year abroad program in Freiburg.

**Required Courses**

The single-major Honours program consists of nineteen courses. Minimum nine courses in German including:

*German 105*

205a

310a

316b

360a

and at least two full courses from the *four-hundred* series.

Joint-major Honours program. Minimum seven courses in German, including:

*German 105*

205a

310a

316b

360a



and at least one full course from the four-hundred series.

Single-major General program. Minimum six courses in German, including:

*German 105*

*205a*

*310a*

*316b*

*360a*

Joint-major General program. Minimum five courses in German, including:

*German 105*

*205a*

and two of *310a, 316b, 360a*.

### Year Abroad Program

Courses offered at Freiburg in the Year Abroad Program are listed at the end of this section.

### Special Provisos

- More advanced students may enrol in *German 205a* after passing a placement test.
- *Four-hundred* level courses are normally open only to students in the fourth quarter of the Honours program.
- To achieve a coherent combination, majors are urged to co-ordinate 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 an integrated computer-assisted language learning program, language laboratory as well as an introduction to present-day Germany. Three lecture/seminars, one laboratory hour weekly. Not open to students with OAC German or equivalent standing. Not credited toward a major in German.

A.A. Krüger

#### *German 105*

Intermediate German language course with comprehensive grammar review, intensive language practice and access to computer-assisted language learning program. Introduction to German literature and culture in the Winter Term. Prerequisite: *German 100*, Grade 12 German, Grade 13 German or equivalent. Four lecture-seminars, one laboratory weekly.

Staff

#### *German 205a*

Advanced Language Practice I: with special emphasis on written and oral German using a variety of contemporary

texts. Prerequisite: *German 105* or permission of the Department. Three lecture/seminars weekly.

J.C. Fewster

#### *German 206b*

German literature and thought from Nietzsche to Brecht. Modern writers and events. Prerequisite: *German 205a* or permission of the Department. One lecture, two seminars weekly.

J.C. Fewster

#### *German 220*

Modern German literature in English translation. (Not offered this year.)

#### *German 231*

German civilization. (Offered only in Freiburg.)

#### *German 232a*

German Civilization I. Taught in English. A survey of culture and society of German-speaking countries from their origins to the French Revolution, including literature, music, art, architecture, and political and scientific history, with the use of films, slides and music tapes. Prerequisites: None. Two courses of *German 232a, 233b* or *240b* may be counted towards a major in German. Two lectures, one seminar weekly.

A.A. Krüger

#### *German 233b*

German Civilization II. Taught in English. A survey of culture and society of German-speaking countries from the French Revolution to the present, including literature, music, art, architecture, and political and scientific history, with the use of films, slides and music tapes. Prerequisites: *German 232a* desirable. Two courses of *German 232a, 233b* or *240b* may be counted towards a major in German. Two lectures, one seminar weekly.

A.A. Krüger

#### *German 240b*

Freud's Vienna from the Habsburgs to Hitler. Taught in English. An examination of a society in decline and its important contributions in its music, painting, architecture and intellectual life to the shaping of the modern mind, with the use of films, slides and music tapes. Open to all students. Two courses of *German 232a, 233b* or *240b* may be counted towards a major in German. Two lectures, one seminar weekly.

J.C. Fewster

*German 305b*

Advanced Language Practice II: with special emphasis on business German, conversational skills and instant translations. Prerequisite: *German 205a* or permission of Department. Three lecture/seminars weekly.

A.A. Krüger

*German 310a*

The Age of Enlightenment and "Sturm and Drang". A study of the beginnings of modern German literature, with special attention to Lessing, Goethe and Schiller. Prerequisite: *German 205* or permission. Two lectures, one seminar weekly.

J.C. Fewster

*German 316b*

Studies in German Romanticism in the European context. Prerequisite: *German 205a* or permission. One lecture, two seminars weekly.

Staff

*German 330a*

The German Novelle and Erzählung of the nineteenth and twentieth centuries. (Not offered this year.)

*German 340a*

The German drama from Classicism to modern experimentation: Realism, naturalism, expressionism, epic theatre, documentary theatre. Prerequisite: *German 205a* or permission of Department. One lecture, two tutorials weekly.

Staff

*German 351a*

Studies in modern German poetry. (Not offered this year.)

*German 352b*

The German novel from Grimmelshausen to the present. (Not offered this year.)

*German 360b*

Studies in German literature and cultural developments of the period 1780-1832 with special attention to Goethe, Schiller and Kleist. Prerequisite: *German 205a* or permission. Two lectures, one seminar weekly.

J.C. Fewster

*German 401a*

History of the German language and linguistics. (Not offered this year.)

*German 402b*

Medieval and late medieval German literature. (Not offered this year.)

*German 405a*

Advanced Language Practice III: special aspects of German grammar. Written and oral exercises with an oral presentation and proficiency test. Prerequisite: *German 305b* or permission. Three lecture/seminars weekly.

A.A. Krüger

*German 410b*

German Baroque literature. A survey of seventeenth-century literature in its European context. Two lectures, one seminar weekly.

J.C. Fewster

*German 420b*

Studies in modern German literature. Two lectures, one seminar weekly.

J.C. Fewster

*German 440a*

East German literature. Two lectures, one seminar weekly.

J.C. Fewster

*German 490*

Special topics.

*German 491a*

Special topics.

*German 492b*

Special topics.

**Year Abroad Program**

Normally, in order to be eligible to study for a year at the University of Freiburg, Germany, for Trent credits with a Trent/Brock/McMaster professor, a student must achieve a minimum of a B- average on all Trent courses (or equivalent courses) and a B- standing in *German 105* or equivalent. For further details please consult the Chair of the Section.

Three full courses at the second and third year level will be offered in 1994-95 at Freiburg by Professors R. and F. Widmaier, McMaster University.

**Hispanic Studies Section***Professors*

R.M. Garrido, LIC.DER., DR.DER., DR. FILOLOGIA (SEVILLA), M.A. (TORONTO); T.A. Noriega, LIC. EN FILOLOGIA (COLOMBIA), M.A., PH.D. (ALBERTA); D.L. Smith, M.A., D.PHIL. (OXFORD) (on leave)

*Professor Emeritus*

J.P. González-Martin, LIC.DER. (OVIEDO), DR.DER. (ZARAGOZA)

*Associate Professor*

G.D. Aitken, B.A. (TRENT), M.A. (STANFORD)

**Assistant Professor**

F.B. García-Sánchez, B.A. (HAVANA), M.A.,  
PH.D. (LAVAL)

**Required Courses**

The single-major Honours program consists of nineteen courses. Minimum ten courses in Spanish, including:

*Spanish 100* or *200* (formerly *111*)

201

211

300

Six additional courses at the *three-hundred* or *four-hundred* series level (excluding *Spanish 324a*, *325b* and *326*).

Joint-major Honours program. Minimum seven courses in Spanish, including:

*Spanish 100* or *200* (formerly *111*)

201

211

300

Three additional courses at the *three-hundred* or *four-hundred* series level (excluding *Spanish 324a*, *325b* and *326*).

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

In exceptional cases students may take literature courses exclusively but will be expected to comply with the minimum number of courses required for the completion of each program.

Single-major General program. Minimum six courses in Spanish, including:

*Spanish 100* or *200* (formerly *111*)

201

211

300

Two additional courses at the *three-hundred* or *four-hundred* series level (excluding *Spanish 324a*, *325b* and *326*).

Joint-major General program. Minimum five courses in Spanish, including:

*Spanish 100* or *200* (formerly *111*)

201

211

300

One additional course at the *three-hundred* or *four-hundred* series level (excluding *Spanish 324a*, *325b* and *326*).

**Special Provisos**

- Students intending to major in Hispanic Studies are strongly recommended to take *Modern Languages 100*, as well as courses in at least one other modern language. Other related courses recommended are *Latin 100*, *Classical Literature 100* and *200*, *Anthropology*

*230* and *304*, *English 200* and *332*, *Comparative Development Studies 200* and *Cultural Studies-English 325*, *History 347* and *447*.

- Students with sufficient knowledge of Spanish may be admitted directly to *Spanish 200*, *201*, *210* or *211*, at the discretion of the Section.
- *Spanish 200* (formerly *111*) and *201* may be taken concurrently.

**Year Abroad Program**

\*Courses marked with an asterisk are part of the Year Abroad Program detailed at the end of this section.

***Spanish 100***

Beginners' course in Spanish. An introduction to Spanish language with emphasis on oral Spanish. Texts include a grammar and one reader. One lecture, two seminars, and one laboratory hour weekly. *G. Aitken* and *F.B. García-Sánchez*

***Spanish 200***

Continuing Spanish. A language course with comprehensive grammar review, intensive language practice and an introduction to Spanish and Spanish-American culture. Prerequisite: *Spanish 100* or the equivalent. Students with high school credits in Spanish or previous knowledge of the language will be required to write a diagnostic test to be admitted into the course. Two seminars, one conversation hour and one laboratory hour weekly.

*F.B. García-Sánchez*

***Spanish 201\****

Intermediate Spanish. A general course of Spanish conversation, pronunciation, composition and reading. Two seminars, one conversation hour and one laboratory hour weekly. Prerequisite: *Spanish 100* (with 70% or better), *Spanish 200* (formerly *111*), or permission of Section. *T.A. Noriega*

***Spanish 210\****

Introduction to Spanish and Spanish-American civilization. A study of civilization in the Spanish-speaking countries (history, art, ideas, social development). One lecture, one seminar weekly. Conducted in Spanish. Students enrolled in this course normally are also required to register in *Spanish 200* (formerly *111*) or *Spanish 201*. (Offered only in Year Abroad Program this year.)

***Spanish 211\****

Introduction to Hispanic literatures and culture. One lecture, one seminar weekly

conducted in Spanish. Students enrolled in this course are also normally required to register in *Spanish 200* (formerly *111*) or *Spanish 201*.

*R.M. Garrido and T.A. Noriega*

*Spanish 300\**

Advanced oral Spanish and composition. An analytical study of the elements required in the use of Spanish, especially in writing. Lecture two seminars weekly. Prerequisite: *Spanish 201* or *200* (formerly *111*) with permission of Section Chair.

*G. Aitken*

*Spanish 311a\**

Spanish contemporary literature. Prose from the generation of 1898 to our times. Lecture and seminar weekly.

*F. García-Sánchez*

*Spanish 312b\**

Spanish contemporary literature since the generation of 1898. Theatre from Valle Inclán to Arrabal and poetry, with special emphasis on the generation of 1927. Lecture and seminar weekly.

*F. García-Sánchez*

*Spanish 322a\**

Spanish-American poetry. A survey of Spanish-American poetry with special emphasis on the contemporary period. Lecture and seminar weekly.

*T.A. Noriega*

*Spanish 323b\**

Spanish-American prose. A survey of Spanish-American prose with special emphasis on the contemporary period. Lecture and seminar weekly.

*T.A. Noriega*

*Spanish 324a*

Modern Spanish-American literature in translation: Poetry. (Not offered this year.)

*Spanish 325b*

Modern Spanish-American literature in translation: Prose. (Not offered this year.)

*Spanish 326*

The contemporary Latin-American novel as aesthetic adventure and commitment: A socio-literary approach. The course is conducted fully in English, and it involves a detailed study of works such as *One Hundred Years of Solitude*, *Reasons of State*, *The Emperor of the Amazon*, *Aunt Julia and the Scriptwriter*, *Like Water for Chocolate*, etc. The initial stage will be concerned with the most distinctive structural aspects of each text. The second stage will be an analysis of intertextual relationships between each one of these narratives and the social, political, and

cultural discourses which generate them. Not for credit toward a Spanish major.

Two-hour seminar weekly. (See Comparative Development Studies)

*T. A. Noriega*

*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. Lecture, seminar weekly.

*R.M. Garrido*

*Spanish 401*

Honours seminar leading to the completion of an undergraduate thesis, with problems of bibliography and literary criticism. (Subject to be chosen in consultation with Section Chair and instructor.)

*Spanish 415a*

History of the Spanish language. A historical survey of the formation and development of the Spanish language from preliterary times to the present day. Lecture and seminar weekly.

*G. Aitken*

*Spanish 416b*

Medieval Spanish literature. Studies of the Spanish literature from *El Cid* (twelfth century) to *La Celestina* (end of the fifteenth century). Lecture and seminar weekly.

*R.M. Garrido*

*Spanish 417*

Cervantes and the novel. A detailed textual study of *Don Quijote* and the *Novelas Ejemplares*. (Not offered this year.)

*Spanish 420*

Contemporary Spanish-American novel: narrative structure and world view. Prerequisite: *Spanish 323b* or permission of the instructor. (Not offered this year.)

*Spanish 495\*, 496a, 497b*

Special topics in Hispanic Studies. Prerequisite: permission of the Chair and the instructor concerned.

*Spanish 4951*

Special topic: A course on some period of Spanish or Spanish-American literature.

*Spanish 4952*

Special topic: A course on some author or topic of Spanish or Spanish-American literature.

**Year Abroad Program**

Normally, in order to be eligible to study for a year on the Year Abroad Program,

for Trent credits with a Trent/Toronto professor, a student must achieve a minimum of a B- average on all Trent courses (or equivalent courses) and a B- standing in *Spanish 100, 200* (formerly *111*) or equivalent. Enrolment is limited to 15 students from Trent. Honours students are especially encouraged to spend a year at a Spanish speaking country. For further details, please consult the Chair of the Section.

The courses to be offered in 1993-94 by Trent University professor or by a professor from the host University are:

*Spanish 201\**: Intermediate Spanish. Conversation, pronunciation, composition and reading.

*Spanish 210\**: Introduction to Spanish and Spanish-American civilization.

*Spanish 211\**: Introduction to Hispanic literatures and culture.

*Spanish 300\**: Advanced oral Spanish and composition.

*Spanish 311a\**: Spanish contemporary literature since the generation of 1898.

Prose and Theatre.

*Spanish 312b\**: Spanish contemporary literature since the generation of 1898.

Poetry.

*Spanish 322a\**: Spanish-American poetry.

*Spanish 323b\**: Spanish-American prose.

*Spanish 4951\**: Special topic in Hispanic Studies.

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## Native Management and Economic Development Program

This Program provides an interdisciplinary and integrated approach to the development of management, community and economic development knowledge and skills appropriate for working within an aboriginal environment. The Program is offered by the Department of Native Studies and the Administrative Studies Program, thus blending a study of native culture with management and economic development skills.

The Program offers:

- a. a two-year Diploma for students who have the equivalent of Ontario Grade 12 or qualify as mature students. Students are required to complete a summer pre-session course (*Communications 91*) plus a minimum of 7.5 university credits. Students are required to complete the courses listed below.

*Native Studies 100*

Introduction to Native Studies.

*Native Studies 150a*

Introduction to community development.

*Native Studies 151b*

Introduction to economic development.

*Administration Studies-Native Studies*

*190*: Introduction to management decision-making.

one other *one-hundred* level course - *AD 105, AN 100, CD 100, PI 105, PO 100* are recommended.

one of *Native Studies 200* (Native Politics), *Native Studies 290* (Native Economic Development), *Native Studies 300* (Aboriginal Governance)

*Administrative Studies 201a*

Financial accounting.

*Administrative Studies-Native Studies*

*270*: Organizational behaviour in contemporary aboriginal organizations.

one further course in Administrative Studies or Native Studies.

Students are required to include *Communications 92c* in their first quarter of studies.

- b. a Bachelor of Arts in Native Studies (NMED emphasis). Fifteen courses. Students are required to take at least six courses in Native Studies and at least four courses in Administrative Studies. This course of study must include the core courses listed above plus:

*Administrative Studies 202b*

Fundamentals of management accounting.

*Administrative Studies 250*

Organization theory.

*Administrative Studies 350*

Planning, budgeting and control.

*Economics 101a/102b* is highly recommended.

## c. an Honours (4 year) Degree Program.

*Option 1:*

Bachelor of Arts (Honours) in Native Studies (NMED emphasis). As in b. above plus an additional academic year and successful completion of a minimum of four additional credits of which three must be *four-hundred* series. *Administration 400* is highly recommended.

*Option 2:*

Bachelor of Administrative Studies (NMED emphasis). Students are required to take the courses listed above at some time over the four years of the program. Students intending to complete the B.A.S. degree should consult with the Director of the Program or designate prior to the start of the second quarter.

Joint-major Honours program. Minimum seven courses in Native Studies including: *Native Studies 100*

200

one of 280 or 310

381a

one of 382a, 383b, 384a,  
or 385b

and two *four-hundred* series courses.

Single-major General program. Minimum six courses in Native Studies, including: *Native Studies 100*

200

one of 280 or 310

Joint-major General program. Minimum five courses in Native Studies. Same required courses as for single-major.

**Special Proviso**

Students will not normally be permitted to count more than two selections from *Native Studies 280, 380, 225 and 325* in the minimum five or six courses required for a major.

*Native Studies 100*

Introduction to Native Studies. The course examines the contemporary situation of native people in Canada in the context of their cultural traditions and the historical interactions between Indian and non-Indian societies. Case studies, documentary sources and contemporary social analysis are used in conjunction with oral traditions to define methods of inquiry in Native Studies. Seminar and two lectures weekly.

*Native Studies 150a*

Introduction to community development. An overview of the concepts of "community" and "community development" in the native development context. The course will examine the community planning process, including the preparation of a community profile. Current issues in native community development will also be discussed. Students are expected to undertake a major research project. Lecture and seminar weekly.

*Native Studies 151b*

Introduction to community-based economic development. The course provides an overview of the formal and informal economies of native and non-native communities within a traditional economics framework including concepts of supply and demand and the principles that influence the location of economic activities. Lecture and seminar weekly.

**Native Studies***Chair of the Department*

To be named.

*Professor Emeritus*

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

*Professors*

M.J. Castellano, B.A. (QUEEN'S), M.S.W. (TORONTO) (on leave 1994-95); D.N.

McCaskill, B.A. (WINNIPEG), M.A.

(CARLETON), PH.D. (YORK); J.S. Milloy,

B.A. (ST. PATRICK'S), M.A. (CARLETON),

D.PHIL. (OXFORD)

*Associate Professor*

D. Newhouse, B.Sc., M.B.A. (WESTERN ONTARIO)

*Assistant Professors*

P. Kulchyski, B.A. (WINNIPEG), M.A., PH.D.

(YORK) (on leave 1994-95); E. Manitowabi;

S.I. Williams, B.A. (TRENT)

**Required Courses**

The single-major Honours program consists of nineteen courses. Minimum nine courses in Native Studies including:

*Native Studies 100*

200

one of 280 or 310

381a

one of 382a, 383b, 384a,  
or 385b

and three *four-hundred* series courses.

*Native Studies-Administration 190*

Introduction to management and decision-making in contemporary aboriginal organizations. (See Administrative Studies)

*Native Studies 200*

Politics and native communities. The course will focus both on the traditional political culture of native peoples and on the political structures of colonialism (Indian Acts, Treaties, etc.) viewed from legal and historical perspectives. Contemporary analysis will treat Indian self-government including models of development, cultural and ideological foundations, government policy and implementation strategies. Lecture and seminar weekly.

*Native Studies-Anthropology 201*

Native societies of Canada. (See Anthropology)

*Native Studies 210*

The Algonkian identity. A study of aboriginal 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, childrearing, Windigo and others.

*P. Bourgeois*

*Native Studies 211*

Native identity development. The course will examine the process of native identity development in various life stages. Formative experiences in traditional and modern settings, development of self-concept and problem solving strategies will be explored in seminars and workshops. Open to first year students with permission of the instructor. Two-hour seminar weekly.

*Native Studies 220*

Iroquois culture and traditions. (Not offered this year)

*Native Studies 225*

Oral Mohawk. An introduction to Mohawk designed for students with little or no knowledge of the language. This is a conversational course, emphasizing the use and understanding of Mohawk through the learning of the basic vocabulary and sentence patterns in class and in language laboratory. Four hours weekly.

*Native Studies-Anthropology-**Canadian Studies 253*

Art of the Americas. (See Anthropology)

*Native Studies-Canadian Studies-*  
*History 255*

History of the Indians of Canada. A study of the "prehistoric" period to the present day. Emphasis will be placed on Indian involvement in the fur trade and imperial politics of the eighteenth century, the development of European "civilizing" policies, and the growth and ideology of the modern Indian political movement. Seminar and lecture weekly.

*Native Studies 260*

Social services and the native people. A study of tribal and contemporary approaches to meeting common human needs. The structure and impact of health, welfare, family and correctional services are examined, along with contemporary initiatives to establish community control of programs. Prerequisite: *Native Studies 100* or permission of instructor. Lecture and seminar weekly.

*Native Studies-Canadian Studies-*  
*History 270*

History and politics of the Métis and non-status Indians of Canada. An examination of the historical development of the Métis nation and survey of selected issues facing the Métis today. The course will explore topics such as Métis origins and identity, ideology and the emergence of Métis nationalism, Métis leadership, land claims and others.

*J.S. Milloy*

*Native Studies-Administration 272*

Organizational behaviour in contemporary aboriginal organizations. (See Administrative Studies)

*Native Studies 280*

Oral Ojibway. An introduction to Ojibway designed for students with little or no knowledge of the language. This is a conversational course, emphasizing the use and understanding of Ojibway through the learning of the basic vocabulary and sentence patterns in class and in the language laboratory. Three hours weekly.

*S.J. Williams*

*Native Studies-Canadian Studies 285*

Native people and the North. A study of political, economic, social and cultural factors which affect the native peoples of Northern Canada, both in the historical and contemporary periods. The course will examine government structure and policies, community processes, and cultural adaptation as well as current land claims, economic development, and cultural interaction. Lecture and seminar weekly.

*Native Studies 290*

Native economic development. Provides an overview of the economic development process with specific reference to native communities. The course examines types of economic activities, where they locate and why. Planning for community economic development as well as business feasibility studies will be covered. Such areas as conflict between community goals and business goals, impact assessment and plan evaluation will also be addressed. Prerequisite: *Economics 101a/b* and *102a/b* or *Native Studies 150a* and *151b*.

*Native Studies 300*

Aboriginal governance. This course examines and analyses the development of aboriginal forms of governance in Canada with a particular emphasis upon cultural, philosophical and political foundations. *D. Newhouse*

*Native Studies-Comparative Development 305*

Native community development. A study of various approaches to community development in native and Third World communities. The course will examine current initiatives in human resource, political and economic development, and critical issues relating to local control, values, gender, government policies, and roles in social change processes. Methods and techniques as applied in community development processes will be included. Practicum optional. Lecture and seminar weekly (three hours).

*Native Studies 310*

Culture and community. A study of cultural continuity, change and revitalization in native communities in Canada. The dynamic nature of cultural adaption and the significance of tribal language, spirituality and social responsibilities will be emphasized. Lecture and seminar weekly.

*E. Manitowabi*

*Native Studies 320*

Urbanization and the native peoples. An analysis of migration, adjustment and integration of native people into urban areas, examining various assimilation and acculturation models as well as cultural interaction between native and white society in rural native communities. Lecture and tutorial weekly.

*D.N. McCaskill*

*Native Studies 325*

Advanced Mohawk language and culture. (Not offered this year.)

*Native Studies 330*

Education and the native peoples. The course will examine issues pertaining to the development of an appropriate educational system for native people including Indian control of Indian education, learning theories, Indian culture, values and identity, teaching and learning styles, pedagogy and curriculum planning. Seminar and lecture weekly.

*Native Studies 340*

Native law. The course focuses on the contemporary legal and justice issues that affect the lives of Aboriginal people in Canada after an examination of the systems of law that have influenced definitions of Aboriginal rights. Also examined are treaties, proclamations and policies from a legal perspective, the cases at the Supreme Court of Canada level that have broad implications for Aboriginal people, and those of the lower courts that have an almost daily impact at the community level. Lecture and tutorial weekly.

*Native Studies-Canadian Studies-English 360*

Native peoples in literature. (See English)

*Native Studies 380*

Advanced oral Ojibway. A general course in advanced conversation and pronunciation using language laboratory and classroom participation. Four hours weekly. Enrolment may be limited. Prerequisite: *Native Studies 280* or permission of instructor.

*S.I. Williams*

*Native Studies 381a*

Theory of community-based research. A practical introduction to research methods in the social sciences, including a critique of those methods in the context of Native development. The ideological base of participatory and action research is examined along with case studies exemplifying alternative methodologies. Normally taken as the foundation course for research methods in Native Studies. Lecture and seminar weekly.

*Native Studies 382a*

Community service methods. (Not offered this year.)



*Native Studies 383b*

Community-based oral history methods. A course in specific oral-history methods. Emphasis is upon the cultural and strategic approaches which enhance oral history methods in aboriginal communities. Topics include research design, community rapport, administration, community-based data collection and analysis, political-economic issues, and dissemination/ materials development. A small-scale field project will be developed. *Native Studies 381a* recommended. Weekly lecture and seminar.

*Native Studies 384a*

Social survey research methods. (Not offered this year.)

*Native Studies 385b*

Program planning and evaluation. (Not offered this year.)

*Native Studies 386, 387a, 388b, 389c*

Native Studies field work. This course will provide students with experience in applying the methodology learned in *Native Studies 381a, 382a, 383b, 384a* or *385b*. Research or service projects will normally be carried out in the field under the joint supervision of faculty and personnel in native agencies. Application is normally made by April 30 of the preceding academic year. Approximately 60 hours for a half course and 120 hours for a full course, plus fortnightly seminars. Prerequisite or corequisite: one of *Native Studies 381a, 382a, 383b, 384a, 385b*.

*Native Studies 390, 391a, 392b*

Reading course. Intended for third-year majors and for second-year students, by application to the Department, who wish to carry out independent research. Details must be arranged before the end of the preceding academic year.

*Native Studies 395*

Special topic. First Nations Women. This course examines the status of First Nations Women in Canada today with respect to cultural expression in the arts, education, work, family, health, politics and the law. The historical context and the nature of the kinds of oppression facing First Nations Women will be examined. *E. Manitowabi*

*Native Studies 396a, 397b*

Special topic.

*Native Studies-History 400*

Research seminar in Indian history. The research seminar will examine the history of the Indian in the fur trade, reserve and modern periods and the nature of Indian historiography. Students will be required to produce one major paper based upon primary research material. Seminar weekly first term, individual tutorial supervising research project second term. *J.S. Milloy*

*Native Studies 402*

Thesis. A double credit in-depth study course in library or field-oriented research, for which a double fee is charged, supervised by the Honours Committee and a Research Project Committee. Students are to arrange all details with the Department Chair before the end of the preceding academic year.

*Native Studies 410*

Seminar on indigenous knowledge. (Not offered this year.)

*Native Studies-Canadian Studies-History 425*

The evolution of the settlement commonwealth. (See History)

*Native Studies 430*

Critical theory and native studies. A seminar on the relevance of contemporary western social and political thought to aboriginal issues. The course will apply a broad range of theoretical approaches to develop understandings and insights of aboriginal and western societies and the specific character of the interactions between them.

*Native Studies-Anthropology-Canadian Studies 450*

Native art of Canada. (See Anthropology)

*Native Studies 481*

Selected topics. (Not offered this year.)

*Native Studies-Comparative Development 482*

Indian responses to cultural interaction. Focus will be on social and psychological processes involved when cultures meet, examining acculturation and conflict models, culture and personality, interaction perspectives and ethnic identity studies. *D.N. McCaskill*

*Native Studies 490*

Reading course. Students may select an area of study under the direction of an adviser. Details are to be arranged through the Department Chair before the end of the preceding academic year.

*Native Studies 495*

Special topic. Ojibwa/Odawa First Nations Language. This fourth year course will be a continuation of further studies of the First Nation's language. It is complementary to *Native Studies 280* and *380* with more in-depth study of the grammatical structure. *Native Studies 280* and *380* are pre-requisite but fluent speakers who want to know the orthography and grammar structure and linguistic researchers may be admitted.

*S.J. Williams*

## Diploma Program in Native Studies

This program is open to students who have the equivalent of Grade 12, or who qualify as mature students. Students of native ancestry are encouraged to enrol. Over a two-year period students are required to complete seven undergraduate courses four of which must be drawn from Native Studies course offerings.

Students must enrol in *Communications 91*, a three-week summer pre-session prior to their first year. In their first year, students will also take *Communications 92c*. Both courses are required. For description of Native Studies course options see Native Studies.

On completion of the diploma requirements, students may apply for admission to the B.A. program. Undergraduate course credits earned in the Diploma program are transferable to meet requirements for a degree.

Application for admission to the Program should be made to the Office of the Registrar.

Inquiries should be directed to the Department of Native Studies.

### Required Courses

Summer prior to Year 1

*Communications 91* (Pre-session)

### Year 1

*Communications 92c*, *Native Studies 100*, and two additional courses, one of which may be a *one-hundred* series course in a discipline other than Native Studies. Some *two-hundred* series Native Studies courses are available with permission of the instructor.

### Year 2

Four courses selected from *two-* or *three-hundred* series Native Studies courses exclusive of *Native Studies 390*.

A *one-hundred* series course from a discipline other than Native Studies may be substituted for any of these courses.

### *Communications 91* (Pre-session)

An intensive three-week summer course providing skill-development in study skills, writing, reading, speaking and listening. Focus is on native content. Successful completion leads to admission to the Diploma Program in the fall.

### *Communications 92C*

A course to provide specific research skills for both Native Studies and Native Management and Economic Development streams. Class instruction, seminars and individual tutoring focus on content relevant to undergraduate course work of participants.

## Northern and Polar Studies

### *Program Coordinator*

P.M. Lafleur, B.Sc. (BRANDON), M.Sc. (TRENT), Ph.D. (MCMASTER), Department of Geography

The Emphasis in Northern and Polar Studies is designed to stimulate interest in the higher latitudes in all academic departments and programs at Trent. It is also designed to give students from the north an opportunity to extend and deepen knowledge of their home regions.

The Emphasis takes the form of an annotation on the transcript of students graduating in the General or Honours programs at Trent. It reads "... with an Emphasis in Northern and Polar Studies."

It can be earned in the following manner:

- Students must have completed at least one month of formal post-secondary study in the north or south polar regions. Such study may take the form of course work or independent or supervised research. As an alternative, students may have lived in the north or south polar regions for more than one year during their teens or later years. Proof of polar experience must be submitted to the Committee on Northern and Polar Studies at least six months prior to graduation. The definition of "North polar regions" used here is that of the Northern Scientific Training Grants

Program of Indian and Northern Affairs Canada. This definition includes northern parts of most provinces. In the South, the continent of Antarctica and the sub-Antarctic islands qualify. The Committee on Northern and Polar Studies shall rule where eligibility is in doubt.

- Credits from Yukon and Arctic Colleges, acceptable to Trent University, may be counted towards this emphasis to a maximum of two-and-a-half courses. Students are encouraged to consult the Committee on Northern and Polar Studies about their selection of courses for the Emphasis at the start of their second year. They must do so at least six months prior to graduation. Early contact with the Committee has the advantage of putting the student in touch with others, students and faculty, with like interests.

Students must have successfully completed five full course equivalents selected, as indicated, from the following, before they graduate.

- (a) Two or more of the following. With the exception of those courses marked with an asterisk, consent of the instructor must be obtained, before the course begins. This is to ensure that a northern emphasis for the student in question will be provided.

AN 311  
 AN/NS 450  
 CA/ER 200  
 CA/CU 413  
 ER 250  
 ER 360  
 GO 342b  
 GO/CA 361  
 \*GO/CA 364a/b  
 HI 370  
 HI/CA 407  
 \*HI/CA 422  
 HI/CA/NS 425  
 NS 200  
 \*NS 285  
 NS/CD 305  
 NS 340  
 \*NS 481  
 \*NS/CA/SO 496a  
 \*NS/CA/SO 497b  
 PO/CD 440

- (b) No more than three of the following for which permission of the instructor and the Committee on Northern and Polar Studies must be obtained. Permission forms are available from the Committee.

All reading/special topic/thesis courses for which acceptable subject matter can be arranged. There are approximately one hundred of these courses in the Trent Calendar, generally at the third- and fourth-quarter levels.

## Philosophy

*Professor and Chair of the Department*  
 M.L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO)

*Professor Emeritus*  
 D. Gallop, M.A. (OXFORD)

*Professors*  
 C.V. Boundas, M.A., PH.D. (PURDUE) (on leave 1994-95); J.W. Burbidge, M.A. (YALE), B.D., PH.D. (TORONTO); R.E. Carter A.B. (TUFTS), M.DIV. (HARVARD), M.A., PH.D. (TORONTO); J.I. MacAdam, B.A. (NEW BRUNSWICK), M.A. (QUEEN'S), PH.D. (LONDON) (on leave Fall Term 1994)

*Associate Professors*  
 B.J. Hodgson, M.A. (TORONTO), PH.D. (WESTERN ONTARIO); F.C. McKinnon, B.A. (MCGILL), B.PHIL., D.PHIL. (OXFORD); R.M. Neumann, B.A. (COLUMBIA), M.A., PH.D. (TORONTO); C.W. Tindale, B.A. (WILFRID LAURIER), M.A., PH.D. (WATERLOO)

### Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Philosophy, (*Philosophy 101* or *105* strongly recommended) including:

*Philosophy 210*  
                   310  
                   240a

and two four-hundred series courses.

Joint-major Honours program. Minimum seven courses in Philosophy, (*Philosophy 101* or *105* strongly recommended) including:

*Philosophy 210*  
                   310

and one four-hundred series course.

Single-major General program. Minimum six courses in Philosophy, (*Philosophy 101* or *105* strongly recommended) including:

*Philosophy 210*  
                   310

Joint-major General program. Minimum five courses in Philosophy, (*Philosophy 101* or *105* strongly recommended) including:

*Philosophy 210*  
310

#### Special Provisos

- *Philosophy 101* and *Philosophy 105*, although not formal prerequisites, offer a preparation for all other courses in the subject.
- *Philosophy 101* and *Philosophy 105* may not both be taken in the first year and only one of them may be counted towards a Philosophy major.
- First quarter students will occasionally be permitted to enrol in *two-hundred* series courses after consultation with the Chair of the Department.
- All *two-hundred* series courses in Philosophy may be counted as fulfilling the university requirements for *three-hundred* series courses.
- The Logic requirement for a single-major Honours degree shall normally be completed prior to commencement of the fourth quarter of an Honours program.
- The fourth quarter of the Honours program will normally consist of four courses, some of which may be *three-hundred* series courses.

#### *Philosophy 101*

An Introduction to philosophy through a study of fundamental problems, such as the nature of moral right and wrong, the freedom of the will, the relation between mind and matter, and the existence of God, as presented in works of major philosophers: e.g., Plato, Descartes, Kant and Nietzsche. Two hours weekly.  
*R.E. Carter, B.J. Hodgson,*  
*F.C. McKinnon and R.M. Neumann*

#### *Philosophy 105*

Practical reasoning. The study of the uses of statements and arguments in reasoning, as they occur in a variety of contexts. Emphasis will be placed on developing skills in recognizing, constructing and critically evaluating arguments. Two lectures weekly; bi-weekly workshops.  
*J.W. Burbidge and C.W. Tindale*

#### *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. Two hours weekly.  
*C.W. Tindale*

#### *Philosophy 214*

Introduction to existential philosophy. Themes will include consciousness as a source of meaning and interpretation, individuality, inter-subjectivity and community, freedom, choice and responsibility, difference and repetition, and nihilism and creation. Texts will be selected from the writings of Nietzsche, Kierkegaard, Camus, Sartre, de Beauvoir, Merleau-Ponty and Heidegger. Two hours weekly.

#### *Staff*

#### *Philosophy 230*

Moral issues. An application of basic principles of moral philosophy to the ethical problems of contemporary society. Two hours weekly.

*F.C. McKinnon and staff*

#### *Philosophy 232*

Philosophy of law, justice and the state. A systematic study of relationships amongst notions of the state and theories of justice and law. Special attention will be given to the relevant writings of major political and legal philosophers, such as Hobbes, Rousseau, Hart and Rawls. A moot court, using an actual legal case, actual judges and stressing a philosophical issue will be included. Weekly two-hour seminar. (Offered this year and in alternate years.)

*J. MacAdam and staff*

#### *Philosophy-Computer Studies 240a*

Symbolic logic. An introductory study of formal logical systems, together with their use in the analysis of various types of arguments. Two hours weekly. (Excludes *Philosophy-Computer Studies 240*)

*R.M. Neumann*

#### *Philosophy 275*

Philosophy of religion. An inquiry into the nature of religion and religious belief, the relations among faith, reason, knowledge and revelation, the analysis of religious language, the mystical claim to direct knowledge of God, the nature of evil, and religion and ethics. Two hours weekly. (Offered this year and in alternate years.)

*R.E. Carter and staff*

#### *Philosophy-Psychology 277*

Philosophy of mind. An introduction to philosophical investigations into the relationship between mind and brain. Two hours weekly. (Offered this year and in alternate years.) (Excludes *Philosophy-Psychology 377a*)

*F.C. McKinnon*

*Philosophy 282*

East Asian philosophy: China and Japan. (Offered in alternate years but not this year.)

*Philosophy 310*

Early modern philosophy. A study of the important philosophies of the seventeenth and eighteenth centuries, including those of Descartes, Spinoza, Leibniz, Locke, Berkeley and Hume. Two hours weekly. (Excludes *Philosophy 212*)

*J.W. Burbidge*

*Philosophy 315*

Descriptive and existential phenomenology. (Offered in alternate years but not this year.)

*Philosophy 316*

Hermeneutics and deconstruction. Themes and texts will be selected from the writings of Heidegger, Gadamer, Ricoeur, Derrida, Deleuze, Foucault, Lacan, etc. Prerequisite: *Philosophy 214* or permission of the instructor. Two hours weekly. (Offered this year and in alternate years.)

*R.E. Carter and staff*

*Philosophy 330*

Moral and political philosophy. A study of some of the following: the relation between morality and rationality, the notion of freedom in morals and politics, the limits of utilitarianism, and the limits to rights. Weekly two-hour seminar.

*J. MacAdam and staff*

*Philosophy-Computer Studies 341b*

Logics and logical theories. A look at selected topics in logic, including some of: modal and 3-valued logics, the foundations of arithmetic, formal semantics, the theory of rational choice, completeness, soundness, and truth. Prerequisite: *Philosophy-Computer Studies 240a* or permission of the instructor. Two hours weekly.

*R.M. Neumann*

*Philosophy 370*

Philosophy and the sciences. An enquiry into the history and method of science, with special attention to the concepts of explanation and truth employed in both the natural and human sciences. Two hours weekly. (Offered this year and in alternate years.)

*B.J. Hodgson*

*Philosophy 376*

Philosophy of language. (Offered in alternate years, but not this year.) (Excludes *Philosophy 378b*)

*Philosophy 379*

Philosophy of art. (Offered in alternate years, but not this year.)

*Philosophy 382*

Indian philosophy. An introduction to Indian intellectual culture; a discussion of a selected set of philosophical issues; and an examination of the association of philosophy with religion and science. Prerequisite: At least one previous philosophy course. (Offered this year and in alternate years.)

*P. Bandyopadhyay*

*Philosophy 390*

Reading course. Students will be encouraged to pursue a special interest, largely through independent study, for full-course credit. Details must be arranged in consultation with the staff in Philosophy between April 15-30 of the preceding academic year. Periodic tutorials.

*Philosophy 395I*

Special topics. The Topic this year is Environmental Philosophy. An examination of philosophical issues arising from reflection on the moral and ontological status of the non-human world. Among the topics to be considered are "deep ecology and the rights of nature," "animal vs. human rights and welfare," "obligations to posterity," "eco-feminism," and "the reconceptualization of nature and humanity's place in it." Weekly two-hour seminar. Prerequisite: At least one philosophy course.

*L. Rubinoff*

*Philosophy 410*

Major Texts: Individual and Collective Reason. The writings of Jean-Jacques Rousseau will be used as point of departure for a look at attempts to solve moral problems by redefining the self. The course will cover contemporary theorists such as Robert Nozick, Barbara Goodwin, Charles Taylor, and Derek Parfit, and will touch on topics such as justice, multiculturalism, the nature of rationality, and the nature of the self. Weekly two-hour seminar.

*R.M. Neumann*

*Philosophy 411*

Medieval philosophy. The development range and variety of philosophical thought in the Middle Ages, with special emphasis upon selected writings of St. Augustine and St. Thomas Aquinas. Weekly two-hour seminar. Prerequisite:

*Philosophy 210* or permission of instructor. (Excludes *Philosophy 311*) (Offered this year and in alternate years.)  
J.W. Burbidge

#### *Philosophy 412*

Nineteenth century philosophy. Prerequisite: *Philosophy 212* or permission of the instructor. (Excludes *Philosophy 312*) (Offered in alternate years, but not this year.)

#### *Philosophy 414*

The Philosophy of I. Kant. (Not offered this year.)

#### *Philosophy 420*

Advanced Metaphysics and Epistemology. A study of such problems as the nature of existence, space and time, determinism, universals, knowledge and belief, perception, personal identity, meaning and truth. Prerequisite: *Philosophy 210* and *310*, or permission of the instructor. Open only to students with a 70% average in their philosophy courses.

B.J. Hodgson

#### *Philosophy 490*

Reading course. Students will be encouraged to pursue a special interest, through independent study, for full-course credit. Details to be arranged in consultation with the staff in Philosophy between April 15-30 of the preceding academic year.

#### *Philosophy 495*

Special topics. (Not offered this year.)

## Physics

### *Professor and Chair of the Department*

P.C. Dawson, M.Sc. (TRENT), Ph.D. (VICTORIA)

### *Professors Emeriti*

L.C.R. Alfred, M.Sc. (BOMBAY), Ph.D. (SHEFFIELD); J.I. Lodge, M.A. (QUEEN'S), Ph.D. (VIRGINIA)

### *Professors*

K. De'Bell, M.Sc., Ph.D. (LONDON); W.F.J. Evans, M.A., Ph.D. (SASKATCHEWAN); R.G. Johnson, M.Sc. (QUEEN'S), Ph.D. (LIVERPOOL); J.W. Jury, M.Sc., Ph.D. (TORONTO); A.J. Slavin, M.Sc. (TORONTO), Ph.D. (CAMBRIDGE)

### *Associate Professors*

J.W. Earnshaw, B.A.Sc. (TORONTO), Ph.D. (CAMBRIDGE)

### *Senior Demonstrator*

J. Breukelaar, B.Sc. (YORK), M.Sc. (TRENT)

### *Demonstrator*

D. Marshall, B.Sc. (WATERLOO)

### Required Courses

The single-major Honours program consists of twenty courses. Minimum ten courses in Physics, including:

*Physics 100*

202a, 270a, 211b, 280b

302b, 321, 355a

400, 420, 461c\*

and two other *four-hundred* series Physics courses.

\*A student may substitute *Physics 460* for *461c* under exceptional circumstances and with approval of the Department.

Joint-major Honours program. Minimum seven courses in Physics, including:

*Physics 100*

202a, 270a, 211b, 280b

302b, 321

400

and one other *four-hundred* series Physics course.

Single-major General program. Minimum six courses in Physics, including:

*Physics 100*

202a, 270a, 211b, 280b

302b, 321

Joint-major General program. Minimum five courses in Physics including:

*Physics 100*

202a, 270a, 211b, 280b

302b, 321

### Special Provisos

- First quarter students may take *Physics 100* and *Physics 150* as courses counting as two different disciplines.
- Students electing no more than two courses in Physics will normally elect *Physics 100* and *Physics 202a*.
- Students wishing to deviate from programs outlined above, or to obtain exemption from course prerequisites, should consult the Chair.

### Notes:

- Course prerequisites should be carefully noted by the student.
- See also under Chemical Physics.
- *Mathematics 110* and *200* are required for Physics majors, and *Physics-Mathematics 301* or *Physics-Mathematics 205a/305b* for Honours Physics. *Mathematics 130* is strongly recommended for the Honours programs.

- *Physics-Mathematics 301* has been replaced by *Physics-Mathematics 205a*, and *Physics-Mathematics 305b*. Both courses can be taken in the third quarter and count as three-hundred level courses in Physics.
- *Physics 325a* may be taken by students in second quarter.
- *Physics 355a* may be counted as a four-hundred level course.
- The word "course" under "Required Courses" means one full-course or two half-courses.

#### *Physics 100*

Elementary physics. Particle dynamics translational and rotational motion, electricity, magnetism, optics, special relativity. Prerequisite: OAC Calculus or Algebra, or equivalent, or permission of the Department. OAC credits in Physics and Calculus are recommended, and concurrent enrolment in first-year calculus is strongly recommended. *Mathematics 110* is required for upper-level Physics courses. Three class meetings and three-hour laboratory weekly, tutorial fortnightly.

*A.J. Slavin*

#### *Physics 150*

Introductory astronomy: a non-mathematical treatment. The solar system, sun, and stars. Stellar evolution, supernovae, neutron stars, black holes. Galaxies, quasars, introductory cosmology. The Big Bang. Astronomy vs. astrology, the search for extraterrestrial intelligence. No prerequisite. Not to be counted toward a major in Physics. Two lectures weekly plus periodic workshops for observations.

*P.C. Dawson, J. W. Earnshaw*

#### *Physics 202a*

Introductory quantum physics. Special relativity, particle-like aspects of radiation, atomic structure, wave-like properties of matter, Schrodinger equation and applications to one-dimensional systems. Prerequisite: *Physics 100* and *Mathematics 110*. Three lectures and three-hour laboratory weekly, tutorial fortnightly.

*R.G. Johnson*

#### *Physics-Mathematics 205a*

Differential equations. (See Mathematics, and under Notes)

#### *Physics-Mathematics 211b*

Classical mechanics. Applied mathematics as found in the classical mechanics of particles. One-dimensional motion, vector differential operators, three-dimensional motion, moving and rotating coordinate

systems, central forces, systems of particles. Prerequisite: *Mathematics 110* and *Physics 100* or permission of the instructor. Corequisite: *Mathematics 200*. Three lectures and tutorial weekly.

#### *Physics 270a*

Thermal physics. First and second laws of thermodynamics and applications, heat transfer, blackbody radiation, kinetic theory of gases, statistical thermodynamics. Prerequisite: *Physics 100*. Corequisite: *Mathematics 200*. Three lectures weekly, tutorial fortnightly.

*W.F.J. Evans*

#### *Physics 280b*

Wave theory. Simple oscillating systems, waves in solids and membranes, acoustic waves in gases, reflection and transmission at a boundary, electromagnetic waves in free space and at surfaces, waves in optical systems. Prerequisite: *Physics 100* and *Mathematics 110*. Corequisite: *Mathematics 200*. Three lectures weekly and tutorial fortnightly, three-hour laboratory weekly.

*J.W. Earnshaw*

#### *Physics 302b*

Quantum physics. Quantum mechanics of one-electron atoms, magnetic dipole moments and spin, transitions and selection rules, identical particles, excited states of atoms, molecules, nuclear and particle physics. Prerequisite: *Physics 202a* and *Mathematics 200*. Three lectures and tutorial weekly, three-hour laboratory weekly.

*P.C. Dawson*

#### *Physics-Mathematics 305b*

Partial differential equations. (See Mathematics, and under Notes)

#### *Physics-Mathematics 311b*

Advanced classical mechanics. Applied mathematics as found in the classical mechanics of particles, rigid bodies and continuous media. Motion of rigid bodies, Lagrangian mechanics, Hamiltonian mechanics, dynamics of oscillating systems. Prerequisite: *Mathematics 200* and *Physics-Mathematics 211a/b*. Three class meetings weekly.

*P.C. Dawson*

#### *Physics 321*

Electricity and magnetism. Electrostatics magnetostatics, electric and magnetic properties of matter, Maxwell's equations, electromagnetic wave propagation. Prerequisite: *Physics 100* and *Mathematics 200*. Three class meetings, laboratory or problems session weekly.

*Physics 325a*

Electronics. A basic applied course in the electronic circuits most commonly used in laboratory sciences. Circuit theory, test instruments, operational amplifiers, semiconductor theory, measurement sensors, power control, digital circuits, AC circuit theory, filters, DC power supplies, RC timing circuits. Prerequisite: *Physics 100* and OAC Calculus or equivalent. Three class meetings weekly, three-hour laboratory weekly. (Excludes *Physics-Computer Studies 223a* and *Physics 224b*)

*J.W. Earnshaw*

*Physics 355a*

Relativity and tensor analysis. Special relativity-kinematics: events and space-time, Minkowski geometry, four vectors, tensors in spacetime. Special relativity-dynamics: conservation of momentum and energy, covariant equations of motion. General relativity: geometry and space, the curvature tensor, equivalence principle and curved spacetime, principle of general relativity, metric form of spacetime, tests of Einstein's theory of gravitation. Prerequisite: *Physics 202a* and *Mathematics 200*. Three lectures weekly, tutorial fortnightly.

*P.C. Dawson*

*Physics 400*

Quantum mechanics. Review of elementary quantum mechanics. States and operators in Hilbert space, Dirac notation, interpretative postulates, representations, symmetry transformations, angular momentum theory, spherically symmetric potentials, approximation methods, scattering theory, identical particles. Selected special topics as time permits. *Physics 302a/b*, *Mathematics-Physics 301*. Three lectures, tutorial weekly.

*R.G. Johnson*

*Physics 420*

Electromagnetic theory. General methods for the solution of Laplace's and Poisson's equations. Advanced treatment of Maxwell's equations. Relativistic transformation of electromagnetic fields. Motion of charged particles in electromagnetic fields. Electromagnetic radiation. Radiating systems. Prerequisite: *Physics 321*, *Mathematics-Physics 301*.

Corequisite: *Physics 355a*. Three class meetings weekly.

*K. De'Bell*

*Physics 431b*

Solid state physics. Crystallography, crystal binding, lattice vibrations and thermal properties, band theory, electron transport. Prerequisite: *Physics 300* or *302a*, *321*, and *Mathematics-Physics 301*. Three class meetings weekly.

*A.J. Slavin*

*Physics 441a*

Nuclear physics. Nuclear properties, inter-nucleon forces, nuclear models, radiation and decay, nuclear reactions, applications, accelerators and detectors. Prerequisite: *Physics 302a*. Three class meetings weekly.

*J.W. Jury*

*Physics 442b*

Particle physics. High energy physics phenomena, elementary particles and their interactions, quarks and gluons. Electro-weak unification. Grand unified theories. Prerequisite: *Physics 355a*. *Physics 441a* strongly recommended. Three class meetings weekly.

*R.G. Johnson*

*Physics 460*

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, atomic potential theory, wind turbine testing, surface physics, high temperature superconductivity, etc. Projects are selected in consultation with members of the Department; students must obtain approval for the project on the form provided, by the preceding March.

*Physics 461c*

Advanced laboratory. This course provides the opportunity for advanced laboratory work in several areas of physics. Prerequisite: All required courses at the *one-hundred*, *two-hundred* and *three-hundred* levels.

*Physics 470a*

Statistical and thermal physics. Fundamental concepts. Thermodynamic quantities. Statistical thermodynamics and applications. Statistical mechanics and applications. Phase equilibrium. Quantum statistics. Phase transitions. Computer simulation. Prerequisite: *Physics 300* or *302b*. Three class meetings per week.



**Physics 490**

Reading course. A course designed to allow advanced students in Physics to pursue independent study under the direction of departmental faculty. This course will be available only in exceptional circumstances, and with the approval of the Department of Physics.

**Political Studies****Chair of the Department**

To be named.

**Professors Emeriti**

M.P. Doxey, B.Sc., Ph.D. (LONDON);  
D. Kettler, M.A., Ph.D. (COLUMBIA)

**Professors**

R. Campbell, B.A. (TRENT), M.A. (TORONTO),  
Ph.D. (LONDON) M. Gunther, B.A. (WITWATERSRAND),  
Ph.D. (NORTH CAROLINA) (on leave 1994-95);  
K.R.V. Lyon, Ph.D. (BRITISH COLUMBIA);  
D.R. Morrison, M.A. (SASKATCHEWAN),  
D.Phil. (SUSSEX) (on leave 1994-95);  
R.C. Paehlike, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH),  
Ph.D. (BRITISH COLUMBIA);  
J. Wearing, B.A. (WESTERN ONTARIO), M.A. (TORONTO, OXFORD),  
D.Phil. (OXFORD)

**Associate Professors**

J.D. Driscoll, M.A., Ph.D. (QUEEN'S);  
D. Torgerson, A.B. (CALIFORNIA-BERKELEY),  
M.E.S. (YORK), M.A., Ph.D. (TORONTO) (on leave Winter 1995)

**Assistant Professors**

E. Helleiner, B.A. (TORONTO), M.A., Ph.D. (LONDON);  
M. Neufeld, B.A. (WATERLOO), M.A., Ph.D. (CARLETON);  
A. Pickel, M.A. (GUELPH),  
Dipl.Pol. (BERLIN), Ph.D. (YORK);  
E. Stavro-Pearce, M.A., Ph.D. (TORONTO)

**Conjunct Professor**

S.G.D. Smith, B.A. (MCGILL), M.A., B.Litt. (OXFORD),  
D.Litt. (TRENT)

**Required Courses**

The department provides for general study and concentration in one or more fields-political theory, Canadian politics, comparative politics, international relations, and public policy. Political theory is important for every field because all political analysis is theoretically informed. Students of politics are thus strongly advised to plan their studies in a way that will advance their theoretical development. The requirements for honours (see below) indicate the

minimum a student needs to develop the theoretical understanding necessary for work at an advanced undergraduate level. A theory course is a prerequisite for entry to the fourth quarter.

The single-major Honours program consists of nineteen courses. Minimum nine courses in Politics, including: *Politics 100*, at least two courses at the *three-hundred* level, and at least three courses at the *four-hundred* level, and two political theory courses chosen from *Politics 233, 333, 334, 335, 430, 435*. Alternatively, one of these political theory course requirements may be fulfilled by taking two *four-hundred* level courses for which a prior course in political theory is recommended.

Joint-major Honours program. Minimum seven courses in Politics, including: *Politics 100*, at least two courses at the *three-hundred* level, at least two courses at the *four-hundred* level, and two political theory courses chosen from *Politics 233, 333, 334, 335, 430, 435*. Alternatively, the political theory course requirement may be fulfilled by taking one *four-hundred* level course for which a prior course in political theory is recommended.

Single-major General program. Minimum six courses in Politics, including *Politics 100*, and at least two courses at the *three-hundred* level.

Joint-major General program. Minimum five courses in Politics including *Politics 100*, and at least two courses at the *three-hundred* level.

**Special Provisos**

*Politics 100* or permission of the Department is a prerequisite for all *two-hundred* to *four-hundred* series courses.

- In exceptional circumstances, students may submit written proposals for reading courses (*Politics 390* or *490*) and the Honours thesis (*Politics 402*) to the departmental curriculum committee. Proposals must also be approved by the instructor concerned before departmental permission is recorded on the registration form.

**Politics 100**

Introduction. The Democratic Challenge. The course employs literature, film and political writings to examine the ways in which questions of power, people and politicians are dealt with in the continuing

effort to resolve conflicts within a democratic framework of government. Two lectures and one tutorial weekly.  
*E. Stavro-Pearce and staff*

*Politics-Canadian Studies 201*

Canadian politics. A general introduction to Canadian political institutions and practices, with emphasis upon the federal constitution, parliament and cabinet, political parties and elections, the Charter and the courts and the policy process. Regular lectures and tutorials.

*J. Wearing and R. Campbell*

*Politics 210*

American politics. The objective of the course is to seek a fuller understanding of how liberal democratic governments might be made more responsive to the needs and aspirations of their citizens. The differing political systems of the United States and of Sweden, with particular emphasis on the US, are analyzed to determine the strengths and weaknesses of each. The political cultures, representative institutions, policy outputs, and proposals for reform of both systems are studied. The relevance of this external political experience to Canada is considered. Weekly lectures and tutorials.  
*V. Lyon*

*Politics 220*

International politics. In this course, students study the evolution of the global system, survey the variety of approaches which scholars and practitioners have developed for analyzing international politics, and examine contemporary issues within that historical and theoretical context. Attention is paid to both security issues as well as international political economy. Regular lectures and tutorials. (Support course for *Comparative Development Studies*)

*M. Neufeld, E. Helleiner*

*Politics 233*

Political theory. A survey of some classic texts in the history of western political thought with an emphasis on problems of interpretation and the ways in which a tradition of political discourse determines our conceptions of the political and legitimates political activity. Lecture and tutorial weekly.

*J. Driscoll*

*Politics 240*

Comparative Politics. An introduction to the comparative study of politics under democratic and non-democratic regimes in Western, ex-communist, and developing

countries. Analysis of historical origins, institutions, culture, the economy, and contemporary problems. (Support course for *Comparative Development Studies*).  
*A Pickel*

*Politics 260*

An introduction to political analysis and public policy. A comparison and evaluation of competing approaches to the study of public policy with special emphasis on problems of analysis and applications to Canadian politics.

Lecture and tutorial or seminar weekly.  
*J. Driscoll*

*Politics-Canadian Studies-History 301*

Canadian political culture, 1864 to the present. (See History)

*Politics-Canadian Studies 305*

Politics and society in Quebec. (Not offered this year.)

*Politics-Canadian Studies 309*

Ontario politics. The objective of the course is to seek a fuller understanding of how liberal democratic government can be made more responsive to the needs and aspirations of its citizens. The political system of Ontario is taken as a case study of liberal democratic regimes and its strengths, weaknesses and prospects are analyzed. The political culture, representative institutions and policy outputs of the Ontario polity are studied. The course concludes with a consideration of proposals to make the province and, by extension, liberal democracies generally, more democratic and their governments more effective. Weekly lectures and tutorials.

*V. Lyon*

*Politics 320*

Conflict and co-operation in international relations. (Not offered this year.)

*Politics 321*

International organization. (Not offered this year.)

*Politics-Canadian Studies 322*

The Politics of North American Economic Integration. An overview of Canadian-American relations with special focus on the emergence of a North American economic region within the international political economy. The course examines key relationships within the region (including Mexico) as well as the region's interactions with the broader international system. Regular lectures and tutorials.

*E. Helleiner*

*Politics 333*

Political theory. (Not offered this year.)

*Politics 334*

Liberal democratic theory. (Not offered this year.)

*Politics 335*

The Political imagination. Political thought is by no means restricted to texts which fall neatly under the heading of political theory. Political themes occupy much of literature, film, and theatre in ways which can enhance both our understanding of politics and our approach to political theory. By focusing on political thought as it appears in a diversity of sources as well as in established texts of political theory, this course will examine the role of imagination in understanding, challenging, and constructing political reality. With the twentieth century and the politics of our own time forming a point of reference, the course is meant to open a particular route of access to both past and present political thought. Weekly lecture/seminar.

*D. Torgerson and E. Stavro-Pearce*

*Politics 340*

Comparative European politics. (Not offered this year.)

*Politics 341*

Party organization and elections. Political parties in the electoral process and how they have been affected by new electoral technologies and changes in voting behaviour. The internal organization of parties and how this affects their performance in legislatures and in government. Prerequisite: A two-hundred level Politics course or permission of the instructor. Weekly lectures and fortnightly tutorials. (Offered this year and in alternate years.)

*J. Wearing*

*Politics-Canadian Studies 362*

Public policy and administration in Canada. An integrated study of the policy-making process in Canada, linking ideas, ideologies and interests with political and administrative structures and processes. Special attention will be given to the politics of economic policy. Students will carry out a year-long research project in a specific policy area of their choosing. Regular lectures and tutorials.

*R. Campbell*

*Politics-Canadian Studies 366*

Canadian Political Economy. (Not offered this year, but will be offered in 1995-96).

*Politics 390, 391a, 392b*

Reading course in politics. Open only to students majoring in Politics and designed to provide an opportunity for more intensive examination of material studied in other politics courses. Periodic tutorials. Prerequisite: Permission of the Department, but see Special Provisos.

*Politics 3951*

Special topic: Actors in world politics. A study from theoretical and practical perspectives of the nature of the international system. This course will focus on a range of actors in world politics including traditional international actors (states - e.g. Canada), revitalized international actors (international organizations - e.g. United Nations), and new international actors (social movements - e.g. peace movement, women's movement). Attention will also be paid to the theoretical traditions that have been developed to understand international actors. Prerequisite: *Politics 220*. Regular lectures and tutorials.

*M. Neufeld*

*Politics 402*

Honours thesis. A scholarly project on a specific topic to be developed and carried out under the supervision of a member of the department and for which a double credit will be given. (See Special Provisos)

*Politics-Canadian Studies 405*

Contemporary Canadian problems. A critical study of selected Canadian political problems. Regular seminars.

*J. Wearing*

*Politics 420*

Contemporary problems in international politics. A critical study of selected problems and themes in international politics. Prerequisite: *Politics 220* or permission of the instructor. A political theory course is recommended.

*M. Neufeld*

*Politics-Women's Studies 430*

Contemporary political analysis. "Feminists theorize the political". An examination of contemporary debates within feminist theory. Prerequisite: a political theory course is recommended. Weekly seminars.

*E. Stavro-Pearce*

*Politics 435*

Political ideologies. (Not offered this year.)

*Politics-Comparative Development 440*

Political economy and comparative politics. (Not offered this year.)

**Politics-Comparative Development 450**

Problems of underdevelopment: democracy and democratization. A study of transitions from authoritarian rule in theoretical, historical, and comparative perspectives. Major themes include democratic political theory, approaches to democratization, capitalism and democracy, and political culture.

Prerequisite: A two-hundred level Politics course or *Comparative Development 200* or permission of the instructor. A political theory course is recommended. Weekly seminars. This course is also open to students in the third quarter of the Honours program.

A. Pickel

**Politics-Environmental and Resource Studies 460**

Public policy in comparative perspective. The course uses a comparative and case study method to compare selected policies in Canada and other Western polities. Areas to be examined include environmental, economic, health and social policy. The course will emphasize the development of projects involving primary research. Prerequisite: a political theory course is recommended. Weekly seminars.

R. Paehlke

**Politics 490, 491a, 492b**

Reading course in politics. Open only to students in the fourth quarter of a Politics major program. Periodic tutorials.

Prerequisite: permission of the Department, but see Special Provisos.

**Politics 4951**

Special topic. Selected topics in international political economy. This course is designed as an advanced introduction to the field of international political economy. Students examine some of the key concepts, theoretical traditions, and historical interpretations that have been developed within the field in the last two decades. The course also explores selected contemporary trends and issues within the international political economy such as economic hegemony, globalization and regionalization, changing global production structures and the politics of international finance. Prerequisite: *Politics 220* or permission of the instructor. A political theory course is recommended. Regular seminars.

E. Helleiner

**Psychology****Associate Professor and Chair of the Department**

P. Watson, M.A., PH.D. (WESTERN ONTARIO)

**Professor Emeritus**

J.P.S. Robertson, M.A. (NEW ZEALAND), PH.D. (LONDON), F.B.P.S.S.

**Professors**

C.H. Ernest, B.A. (SASKATCHEWAN), M.A., PH.D. (WESTERN ONTARIO); G.T. Reker, B.A. (MCMASTER), M.A.SC., PH.D. (WATERLOO); C.T. Smith, B.SC. (MANITOBA), M.A., PH.D. (WATERLOO); Gordon Winocur, M.A. (MANITOBA), PH.D. (WATERLOO); P.T.P. Wong, B.A. (CARLETON), M.A., PH.D. (TORONTO) (on leave 1994-95)

**Associate Professors**

F.A. Bleasdale, B.A. (TORONTO), M.A., PH.D. (WESTERN ONTARIO) (on leave Winter Term 1994); D.J. Kennett, B.A., PH.D. (MCMASTER); D.G. Lowe, B.A. (MCMASTER), M.A., PH.D. (WATERLOO); R.B. Morris, B.A. (REDLANDS), M.SC. (WASHINGTON), PH.D. (ALBERTA); R.G. Settington, M.A., PH.D. (TORONTO); C.F. Sproule, M.A. (TORONTO) (on leave 1994-95); H.J. Stanford, M.A., PH.D. (QUEEN'S) (on leave 1994-95)

**Assistant Professor**

J.B. Aubrey, M.SC. PH.D. (ALBERTA)

**Conjoint Assistant Professor**

G.A. Burkhart, B.A. (CALVIN COLLEGE, MICHIGAN), M.SC. (WATERLOO), PH.D. (WINDSOR)

**Required Courses**

The Department of Psychology offers two Honours programs, one course-based (normally leading to the B.A.) and one thesis-based (leading to the B.Sc.). Students intending to do a thesis-based Honours program should discuss their program with the Chair of the Honours Committee before choosing their *three-hundred* and *four-hundred* level courses.

The course-based Honours program consists of twenty courses with a minimum of eleven full-course equivalents (or eight if joint-major) in Psychology, including:

**Psychology 101**

215

One from 221, 235, 271, 280

One of 315 or 333

Two *Basic* full-course

equivalents (or one if joint-

major) from: 302a, 306,

312b, 351, 375a,

376b, 470, 4952

Two *Specialized* full-course equivalents (or one if joint-major) from: 301, 320, 340, 382, 430, 480, 4951

Three additional *three-hundred* or *four-hundred* level Psychology courses (or two if joint-major).

The thesis-based Honours program consists of twenty courses with a minimum of eleven full-course equivalents (or eight if joint-major) in Psychology, including:

*Psychology 101*

215

One from 221, 235, 271, 280

315

Two *Basic* full-course equivalents (or one if joint-major) from: 302a, 306, 312b, 351, 375a, 376b, 470, 4952

Two *Specialized* full-course equivalents (or one if joint-major) from: 301, 320, 340, 382, 430, 480, 4951, (see Notes)

402 (or 401 if joint-major)

410

The General program consists of fifteen courses with a minimum of six full-course equivalents (or five if joint-major) in Psychology, including:

*Psychology 101*

215

One from 221, 235, 271, 280

One *Basic* full-course equivalent from: 302a, 306, 312b, 351, 375a, 376b, 470, 4952

One *Specialized* full-course equivalent from: 301, 320, 340, 382, 430, 480, 4951

One additional *three-hundred* or *four-hundred* level Psychology course (delete this sixth course if joint-major)

#### Notes:

- A standing of C- (60%) or higher is required in *Psychology 101* in order to register in any other Psychology course; no credit is given for any upper level Psychology course completed at another University before a standing of C- or higher is received in *Psychology 101* or its equivalent.
- Students contemplating taking a reading course must consult with the course

coordinator prior to April 30 of the preceding academic year.

- Students doing research involving animal subjects in any Psychology course must complete satisfactorily the University's Animal Care Course as part of the Psychology course requirements.
- *Psychology 333* requirement will be waived for students who have completed the former *Psychology 332b*.
- If both *Psychology 315* and *Psychology 333* are satisfactorily completed, *Psychology 333* may be counted as a *Specialized* course.

*Psychology 101*

Introduction to psychology. A survey of the major areas of psychology, including its historical development and the methods of the science, the development of behaviour, learning and memory, biological and perceptual processes, individual differences and personality, and social determinants of behaviour. Two lectures weekly; two-hour laboratory fortnightly.

*Staff*

*Psychology 215*

Basic experimental methods and statistics. An introduction to methodological and statistical techniques in psychological research and the application of these techniques to empirical research in the discipline. (This course fulfills the Mathematics requirement for the B.Sc.) Prerequisite: C- or higher in *Psychology 101*. Three lectures weekly, workshop or laboratory weekly.

*J.B. Aubrey, F.A. Bleasdale*

*Psychology 221*

Introduction to physiological and comparative psychology. A consideration of the methods and techniques of physiological and comparative psychology, including neuroanatomy, sensory and motor systems, and physiological mechanisms of behaviour. Prerequisite: C- or higher in *Psychology 101*. Two lectures weekly; seminar fortnightly.

*C.T. Smith*

*Psychology 235*

Personality theory. An examination of significant personality theories including Freudian, Neo-Freudian, Behaviourist, Third Force, Existentialist and Phenomenological theorists. Prerequisite: C- or higher in *Psychology 101*. Lecture and seminar weekly.

*Staff*

*Psychology 271*

Social psychology. A discussion of contemporary research in attribution and social cognition; attitude formation and change, group structure and processes; social influence processes; and inter-personal relations, including liking, prejudice, aggression, and altruism. Prerequisite: C- or higher in *Psychology 101*. Two lectures weekly; seminar fortnightly.

*Staff*

*Psychology-Philosophy 277*

Philosophy of mind. (See Philosophy) Not counted as part of the minimum requirements for the General or Honours degrees in Psychology.

*Psychology 280*

Child psychology. The development of the normal child from conception to adolescence, with emphasis on the empirical research and theoretical issues pertaining to child development and behaviour. Prerequisite: C- or higher in *Psychology 101*. Two lectures weekly; seminar fortnightly.

*Staff*

*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. Prerequisite: any two-hundred level Psychology course. Two lectures weekly; seminar fortnightly. *R. B. Morris*

*Psychology 302a*

Psychology of language. (Not offered 1994-95.)

*Psychology 306*

Human information processing. An intensive examination of selected aspects of human behaviour which are analyzed by an information processing approach. Specific topics include detection, discrimination, decision making, sensory coding, pattern recognition, attention, and memory. Prerequisite: *Psychology 215*. Three lectures/laboratories weekly. *D.G. Lowe*

*Psychology 312b*

Special topics in research methodology. (Not offered 1994-95.)

*Psychology 315*

Advanced statistics and research design. An intensive study of the application of statistical techniques to a variety of research questions and experimental designs. The course will prepare students for *Psychology 401* and *402* where they will be required to design, analyze and interpret their research. Focus is on the laws of probability, techniques of analysis of variance and covariance, correlation, regression, and multivariate procedures. Prerequisite: *Psychology 215*. Three lectures and two-hour workshop weekly. *D. J. Kennett*

*Psychology 320*

Applied learning. (Not offered 1994-95.)

*Psychology 333*

Advanced psychometrics. A detailed intensive examination of the principles of test construction, involving item writing, scaling, item analysis, reliability, validity, and validity checks. Advanced topics include factor analysis and multiple regression. Introduction to SPSS computer programming, test administration, and test evaluation. In the second half of the course, a number of educational, psychological, and clinical instruments will be examined in depth. Prerequisite: *Psychology 215*. Two lectures weekly; two-hour laboratory fortnightly. (Students may not count for credit both the former *Psychology 332b* and *Psychology 333*.) *G.T. Reker*

*Psychology-Biology 336b*

Animal behaviour. (See Biology) Not counted as part of the minimum requirements for the General or Honours degrees in Psychology.

*Psychology 340*

Abnormal psychology. A survey of deviations and disorders in behaviour as investigated by experiments and other systematic procedures. Prerequisite: any two-hundred level Psychology course. Two lectures weekly; seminar fortnightly. *Staff*

*Psychology 351*

Learning. In the first half of the course, major findings and issues in animal learning will be examined with the focus on classical and instrumental conditioning. In the second half, emphasis will be on the higher cognitive activities involved in human learning, memory, and related areas. Prerequisite: *Psychology 215*. Two lectures weekly; two-hour laboratory or problem session fortnightly. *C.T. Smith, C.H. Ernest*

*Psychology-Biology 375a*

Principles of the nervous system. An intensive coverage of the central nervous system, its anatomy and physiological interactions. The course emphasizes subcortical and cortical brain structures and their functional characteristics. Prerequisite: *Psychology 221* or an upper-level Biology course (which requires permission of the Department.) Two lectures and two-hour laboratory weekly.

Staff

*Psychology-Biology 376b*

Neuropsychology. An examination of the relationship between brain function and psychological processes, drawing heavily from contemporary research involving humans and animals, and describing the neural bases for such psychological processes as learning, memory, language, and emotion. Special attention is given to behavioural abnormalities resulting from brain pathology. Prerequisite: *Psychology-Biology 375a*. Two lectures and seminar weekly.

J.B. Aubrey

*Psychology 382*

Exceptional development. An overview of the major areas of exceptional development, including mental retardation, giftedness, sensory impairments, specific learning disabilities, behaviour problems, autism, multiple impairments, and problems of aging. Prerequisite: *Psychology 280*. Three lectures/discussions weekly.

R.G. Settington

*Psychology 390, 391a, 392b*

Reading course. A course designed to allow advanced students in Psychology to pursue independent study under the direction of departmental faculty. Not counted as part of the minimum requirements for the General or Honours degrees in Psychology. Prerequisite: *Psychology 215* and permission of the department. (See Notes.)

Department Chair

*Psychology 401*

Joint-major Honours thesis. This is the same course as *Psychology 402* with the exception of the thesis being jointly supervised by and given a single course credit by both participating departments. Prerequisite: same as *Psychology 402*. Corequisite: *Psychology 410*. For part-time students, *Psychology 401* and *410* are to be completed as the final requirements toward the B.Sc. degree.

For 1994-95, combined enrolment for *Psychology 401* and *402* is limited to 20 students. Students must secure agreement of faculty for supervision before March 31, 1994.

D.G. Lowe

*Psychology 402*

Single-major Honours thesis. A double-credit course, for which a double fee is charged, during which students will design and execute a major piece of psychological research under the supervision of departmental faculty. Prerequisite: *Psychology 315*, one *Basic* full-course equivalent from *302a, 306, 312b, 351, 375a, 376b, 4952* (note that *Psychology 470* is excluded from this list). Corequisite: *Psychology 410*. For part-time students, *Psychology 402* and *410* are to be completed as the final requirements toward the B.Sc. degree. For 1994-95, combined enrolment for *Psychology 401* and *402* is limited to 20 students. Students must secure agreement of faculty for supervision before March 31, 1994.

D.G. Lowe

*Psychology 410*

Honours seminar. A seminar course in which students discuss empirical and theoretical issues related to their Honours thesis research, colloquia topics, and current issues in psychology under the direction of departmental faculty. Prerequisites: same as *Psychology 401* and *402*. Corequisite: *Psychology 401* or *402*. Two seminars weekly.

Staff

*Psychology 430*

Human abilities. In addition to historical background, the first half of the course includes a discussion and critique of psychometric theories of intelligence; information processing approaches to understanding the nature of abilities; and behaviour genetics of intelligence. The second half focuses on environmental determinants of intelligence; developmental theories; and group differences such as age, sex, and race/culture. Prerequisite: *Psychology 215*, plus successful completion of at least 10 courses, plus Honours standing. Two lectures weekly; seminar fortnightly. (Students may not count both *Psychology 430* and *Psychology 330a* for credit.)

C.H. Ernest

*Psychology 470*

History and systems of psychology.

A survey of the history and systems of psychology through a discussion of the work of various authors who may be considered important in the history of psychology because of their contribution to systematic theory, research, or the organization of the discipline. Prerequisite: any four Psychology courses as pre- or corequisite. Three lectures weekly.

*R.B. Morris*

*Psychology 480*

Adult development and aging. A detailed examination of psychological processes associated with development in adulthood and old age. Topics include biological and psychological theories of aging; research methods; age changes in memory, intelligence, personality, attitudes, stress coping and health; successful aging; psychopathology; senile dementia; methods of assessment; methods of prevention and intervention. Prerequisite: *Psychology 215*, plus successful completion of at least 10 courses, plus Honours standing. Two lectures weekly; seminar fortnightly.

*J.B. Aubrey and staff*

*Psychology 490, 491a, 492b*

Reading course. A course designed to allow students in the fourth year of their Psychology program to pursue independent study under the direction of departmental faculty. (See *Notes*.) Not counted as part of the minimum requirements for the Honours degree. Prerequisite: *Psychology 215*, plus successful completion of at least 10 courses, plus Honours standing, plus permission of the Department.

*Department Chair*

*Psychology 4951*

Special topic: Health psychology. This course examines, from a multidisciplinary perspective, the interface of psycho-social and biomedical processes in the prevention of illness and promotion of health. While the focus is on theory-based psychological research, there is also a strong emphasis on the practice of health psychology in terms of cognitive and behavioural principles. Topics include attribution theory, self-efficacy, stress and coping, life style and risk factors in various medical disorders such as cancer, cardiovascular disease and AIDS.

Prerequisite: *Psychology 215*, plus successful completion of at least 10 courses, plus Honours standing. Two

lectures, seminar/workshop weekly.  
*G.T.Reker, D.J. Kennett*

*Psychology 4952*

Special topic: Psycholinguistics and reading processes. A survey of theory and research on the production and comprehension of spoken and written language. Topics covered include syntactic and semantic structure of language, mental representation, the relation between language and cognitive processes, language development, bilingualism, and reading processes. Prerequisite: *Psychology 215*, plus successful completion of at least 10 courses, plus Honours standing. Two lectures weekly; laboratory fortnightly. (Students may not count both *Psychology 4952* and *Psychology 302a* for credit.)  
*P. Watson*

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**Science**

*The Associate Dean of Arts & Science (Science)*, is responsible for the administration of all general science courses.

*Physics 150*

Introductory astronomy. See *Physics 150*.

*Science 200*

Discovering science. (Not offered this year.)

*Science 220*

Evolution. (Not offered this year.)

*Science-Geography 240*

(Not offered this year.)

*Science 350*

Communicating science. This course is designed to help students develop their skills in communicating science to colleagues in their own field and to specific audiences within the general public. Focus is on written and oral communication skills, although non-traditional skills (theatre, displays, games) are also examined. Computers and audio-visual equipment are used extensively. Two-hour lecture and two-hour lab weekly, and one compulsory weekend field trip. Open to science students and to students in the Teacher Education Program with a minimum of three science credits or with the permission of the instructor.  
*M. Havas*

*Science-Mathematics 380*

History of mathematics. (Not offered this year.)



## Sociology

### Professor and Chair of the Department

R.T. Bowles, B.Sc. (BRIGHAM YOUNG), Ph.D. (OREGON)

### Professors Emeriti

R.F. White, B.A., B.A.Sc., M.COMM. (TORONTO), Ph.D. (CHICAGO); R.A. Lockhart, M.A. (SIMON FRASER), Ph.D. (ESSEX)

### Professors

P. Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD, MANCHESTER), Ph.D. (MANCHESTER); A. Heitlinger, B.A. (KENT), Ph.D. (LEICESTER) (on leave 1994-95); J. Hillman, M.A. (OXFORD), Ph.D. (SUNY, BUFFALO)

### Associate Professors

D.M. Clarke, B.A. (TRENT), M.A. (MCMASTER), Ph.D. (CARLETON); J.R. Conley, B.A. (ALBERTA), M.A. (TORONTO), Ph.D. (CARLETON) (on leave 1994-95); C.V. Huxley, B.A. (YORK, ENG.), M.A. (SIMON FRASER), Ph.D. (TORONTO); S. Katz, B.A. (YORK), M.A. (MCGILL), Ph.D. (YORK); B.L. Marshall, M.A. (GUELPH), Ph.D. (ALBERTA); F. Nutch, M.A. (HAWAII), Ph.D. (YORK); G.M. Thibault, B.A., B.Ed., M.A., Ph.D. (DALHOUSIE)

### Assistant Professors

S. Arat-Koc, B.A. (BOGAZICI), M.A. (WATERLOO), Ph.D. (TORONTO)

### Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Sociology, including:

*Sociology 100*

210

220

221a/b

222a/b or equivalent\*

at least four *three-hundred series* or *four-hundred series* courses of which at least one must be a *four-hundred series* course. Students planning to enter graduate school are strongly advised to take *Sociology 400* (Contemporary Sociological Theory).

Joint-major Honours program. Minimum seven courses in Sociology, including:

*Sociology 100*

210

220 (or 280 for

SOC-CDS Joint-major)

221a/b

222a/b or equivalent\*

plus at least two *three-hundred series* or *four-hundred series* courses of which at least one must be a *four-hundred series* course. Students planning to enter graduate school are strongly advised to take *Sociology 400* (Contemporary Sociological Theory).

Single-major General program. Minimum six courses in Sociology, including:

*Sociology 100*

210

220

plus two *three-hundred series* courses.

Joint-major General program. Minimum five courses in Sociology, including:

*Sociology 100*

210

220 (or 280 for

SOC/CDS Joint-major),

plus one *three-hundred series* course.

### Notes:

The program has two tiers: foundation courses in basic areas of Sociology at the *one-hundred* and *two-hundred* level, and courses in specialized areas of Sociology at the *three-hundred* and *four-hundred* levels. The foundation courses aim to provide a grounding in the core theoretical and methodological aspects of the discipline. The specialized courses permit students to study in some detail particular substantive areas in sociology.

A standing of C- (60%) or higher is required in *Sociology 100* for registration in upper-year Sociology courses. Students enrolling in cross-listed courses have the option to substitute minimum 60% in *Sociology 100* with minimum 60% in the prerequisite for that particular Department or Program. The prerequisite is contained in the Calendar specification for the relevant courses.

*Three-hundred series* courses are open to students who have completed five university courses. Students are strongly encouraged to complete at least one full course credit from among *Sociology 210*, *220*, *221a/b* and *222a/b* before proceeding to *three-hundred series* courses.

*Four-hundred series* courses are open to students who have completed ten university courses, of which at least two should be at the *three-hundred* level. Students are strongly encouraged to complete at least two full course credits from among *Sociology 210*, *220*, *221a/b* and *222a/b* before proceeding to *four-hundred series* courses.

Students are advised to take *Sociology 389* if they are intending to enter professional or graduate schools in Canada.

\**Mathematics-Statistics 150, Psychology 215* or *Psychology 315* will be deemed equivalent to *Sociology 222alb* for program requirements. *Sociology 222alb* is not open to students who have completed or are currently registered in either *Mathematics-Statistics 150, Psychology 215* or *Psychology 315*.

#### *Sociology 100*

Introduction to social analysis. An introduction to the basic ideas of sociological analysis. Two-hour lecture, workshop weekly.

F. Nutch & staff

#### *Sociology 210*

Classical sociological theory. An examination of the structure and scope of sociological theorizing. Conceptions of theory, method, and object of investigation will be explored with regard mainly to Marx, Weber and Durkheim. Prerequisite: C- or higher in *Sociology 100*. Lecture, workshop weekly.

J. Hillman

#### *Sociology 220*

Social inequality: class, gender, ethnicity. The sociological study of social inequality, concentrating on class, gender, and ethnicity as relations of domination will be explored through a variety of theories and methods. The course will focus on the structural analysis of these social relationships, their links with each other, and their effects on societies and individuals. Prerequisite: C- or higher in *Sociology 100*. Lecture weekly, workshop fortnightly.

D. Clarke

#### *Sociology 221b*

Research methods. An introduction to the major research methods employed in sociological research. Lecture, seminar weekly.

C. Huxley

#### *Sociology 222a*

Statistics. An introduction to basic statistics and their application in sociological research. Lecture, seminar weekly.

#### *Sociology 230*

Self and society. An examination of the relationship between the individual and society. The first term investigates interactionist, dramaturgical and ethnographic frameworks. Topics include

the social construction of identity, body language, socialization, power relations and marginality. The second term explores the cultural contexts which shape the meanings of personal experience. Prerequisite: C- or higher in *Sociology 100*. Lecture, seminar weekly.

S. Katz

#### *Sociology 241*

Family and kinship. Application of sociological frameworks to the analysis of different family forms, internal family processes and the societal contexts which shape families. Canadian and comparative materials will be used. Prerequisite: C- or higher in *Sociology 100*. Lecture, workshop weekly.

*Sociology-Comparative Development 280* Society and economy. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

#### *Sociology-Administration 333b*

Social organization and bureaucracy. An overview of different approaches to the analysis of complex organization including classical theories of bureaucracy, the managerial tradition and perspectives drawn from contemporary sociology. Selected case studies are examined with special emphasis on the analysis of the modern enterprise. Prerequisite: C- or higher in *Sociology 100*, or *Administration 250*. Lecture, seminar weekly.

#### *Sociology 334a*

Sociology of work. The nature and meaning of paid work in North America in the last half of the 20th Century. The effects of technological changes, the shift to a service economy, and the changing gender composition of the labour force on managerial and employee strategies to control the workplace. Prerequisite: C- or higher in *Sociology 100*, or *Administration 250*. Lecture, seminar weekly.

C. Huxley

#### *Sociology-Canadian Studies 340*

Sociology of education. An examination of the role of schooling with particular emphasis on the relationship between family, education and society, education and inequality, the social organization of knowledge, education and social change, the politics of education. Prerequisite: C- or higher in *Sociology 100* or *Canadian Studies 200* or *300*. Lecture workshop weekly.

G. Thibault

**Sociology-Women's Studies 342**

Sociology of Gender. This course focuses on gender as a key category of sociological analysis, and examines both theoretical and empirical treatments of gender difference and inequality with an emphasis on recent feminist scholarship. Topics include the social construction of masculinity, femininity and sexuality, as well as gender-focused analyses of language, media, paid and unpaid work, reproduction and politics. Prerequisite: C- or higher in *Sociology 100* or *Women's Studies 200*. Lecture, workshop weekly.  
*B. Marshall*

**Sociology 345**

Culture and society. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology 347**

Sociology of religion. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology-Cultural Studies 350**

Modern cultural theory. (See Cultural Studies)

**Sociology 361**

Deviance and social control. This course examines major sociological theories and debates about deviant and criminal behaviour; informal modes of social control as they relate to gender and deviance or youth subcultures; and formal modes of social control including crime policing and the justice system. Prerequisite: C- or higher in *Sociology 100*. Lecture, seminar weekly.

**Sociology 363**

Sociology of health and illness. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology 366**

Analysis of social policy. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology 380**

State and class. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology-Comparative Development Studies 382**

Historical sociology. Prerequisite: C- or higher in *Sociology 100* or *Comparative Development 100*. (Not offered this year.)

**Sociology 383a/b**

Urban culture. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology 384a/b**

Urban social structure. Prerequisite: C- or higher in *Sociology 100*. (Not offered this year.)

**Sociology-Canadian Studies 389**

The social structure of Canada. Topics to be covered include class and stratification the national question, regional differences and tensions, state organization and the formation of culture. Prerequisite: C- or higher in *Sociology 100* or *Canadian Studies 200* or *300*. Lecture, seminar weekly.

**Sociology 395**

Special topics in sociological investigation. This year: *Sociology-Women's Studies 3952*. Immigrant women in Canada: Gender, Race and Class Issues. (See Women's Studies)

*S. Arat-Koc*

**Sociology 396a, 397b, 398c**

Special topics in sociological investigation. (Not offered this year.)

**Sociology 400**

Contemporary sociological theory. Advanced analysis of major questions in sociological theory. This year, the focus will be on debates around modernity in social theory. A broad spectrum of issues flow out of these debates, and will be examined through an in-depth analysis of the work of theorists such as Anthony Giddens and Jurgen Habermas. Particular emphasis will be placed on the challenge of feminist and postmodern theories, and on the relationship between theory and politics as developed in theories of new social movements. Prerequisite: *Sociology 210* or permission of the instructor. Two-hour seminar weekly.

*B. Marshall*

**Sociology 402**

Honours thesis. A specific scholarly project on a well-defined topic, for which double credit will be given, to be worked out in consultation with the student's Honours supervisor. Prerequisite: 75% (B) average in sociology courses. Regular meetings with students writing Honours thesis.

**Sociology-Cultural Studies 440**

Special topics in the sociology of knowledge and culture. This year the course explores sociological applications of Michel Foucault's theories of power/knowledge, discipline, subjectivity and governmentality. Topics include the genealogy of the human science, regimes of calculability and surveillance,

technologies of the self in informational, gendered, lifecourse and lifestyle contexts, and popular resistance to disciplinary rationalities. Prerequisite: *Sociology 210*, *Cultural Studies 250*, or permission of the instructor. Seminar weekly.  
S. Katz

*Sociology-Canadian Studies 445*  
The media and communications in Canada. An examination and analysis of the communications industries and policies of Canada. The growth and development of newspaper, periodical and book publishing, and of film, radio, television and new communication technologies. Two-hour seminar weekly.  
D. Clarke

*Sociology-Women's Studies 461a*  
Gender, regulation and resistance. A study of the ways in which women are labeled and treated as deviant by virtue of their gender. Topics include the body and reproduction, mental and physical health and crime. Prerequisite: *Sociology 342* or *361*. Two-hour seminar weekly.  
G. Thibault

*Sociology-Women's Studies 462b*  
Women and social policy. A study of policy in areas which implicate women; such as health care and family welfare, sexuality, corrections and pay equity. Prerequisite: *Sociology 342* or *461a*. Two-hour seminar weekly.  
G. Thibault

*Sociology-Comparative Development Studies 470a*  
Social Movements-religion in development. (See Comparative Development Studies)  
J. Hillman

*Sociology 480*  
Comparative social analysis. Prerequisite: *Sociology 210* or permission of the instructor. (Not offered this year.)

*Sociology 495*  
Special topics in sociological investigation. (Not offered this year.)

*Sociology 4951*  
Special topics in sociological theory. Prerequisite: *Sociology 210* or permission of the instructor. (Not offered this year.)

*Sociology 496b*  
Special topics in sociological investigation. This year: "Science, Technology and Society". A sociological study of science and scientific knowledge as represented in field sciences, ecology, and environmental studies. Particular attention will be devoted to the social

construction of science, nature and the environment, and science as everyday practical activity. Readings include works by Berger and Luckmann, Kuhn, Keller, Latour and Woolgar, Lynch, and Restivo. Two-hour seminar weekly.  
F. Nutch

*Sociology 497b*  
Special topics in sociological investigation. This year: "Social Change and Recovering Nature." Texts focusing on nature, ecology and the environment will be interpreted sociologically as part of contemporary movements of thought and social change. Readings to include works by Bateson, Bird, Bookchin, Capra, Gore, Leiss, McRobie, Merchant, Robbins, Schumacher, and A. Wilson. Two-hour seminar weekly.  
F. Nutch

*Sociology-Comparative Development Studies 496b*  
Special topic: Protestantism in Latin America and the Caribbean. (See Comparative Development Studies)  
J. Hillman

### Reading Courses

Both full- and half-year reading courses are available as *Sociology 390*, *391a*, *392b*, *393c*, *490*, *491a*, *492b*, *493c*. Registration in reading courses is contingent on instructor's permission and Departmental approval in advance of course registration.

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## Women's Studies

### Assistant Professor and Chair of the Program

S. Arat-Koc, B.A. (BOGAZICI), M.A. (WATERLOO), PH.D. (TORONTO)

### Professor

C. Verduyn, B.A. (TRENT), M.A., PH.D. (OTTAWA)

### Associate Professor

J. Sangster, B.A. (TRENT), M.A., PH.D. (MCMASTER)

### Assistant Professor

W. Lem, M.A., PH.D. (TORONTO)

### Lecturer

M. Hobbs, B.A. (TRENT), M.A. (TORONTO)

### Associated Faculty

*Anthropology*, L. Hubbell; *Canadian Studies*, M. Lacombe; *English Literature*, J. Buckman, M.C. Eddy; *Political Studies*, E. Stavro-Pearce; *Sociology*, B. Marshall, G. Thibault

The Women's Studies Program provides an opportunity for students to pursue a joint-major Honours degree by combining Women's Studies core and support courses with a joint-major in another discipline.

### Required Courses

The joint-major Honours program consists of nineteen or nineteen and a half full courses, depending upon the number of courses required by the paired discipline. Minimum seven courses in Women's Studies including:

*Women's Studies* 100\*  
201\*  
300  
400

two other core courses, one other course, core or support.

Joint-major General program. Minimum five Women's Studies courses, including:

*Women's Studies* 100\*  
201\*  
300

one other core course, one other course, core or support.

\* for students entering the program in 1993-94 or later. Students who began the program before 1993-94 require *WS 200*.

Please note that some Women's Studies core and support courses have prerequisites not listed here.

Students may include no more than one reading course in the minimum five Women's Studies courses required for the General joint-major, and no more than two in the minimum seven Women's Studies courses required for the Honours joint-major.

### Core Courses

#### *Women's Studies 100*

Introduction to women's studies. An interdisciplinary introduction to women's studies. Areas to be examined include sex vs. gender, definitions of feminism, and issues in contemporary feminism. Lecture, seminar weekly. Not open to students with credit in *Women's Studies 200*.

*M. Hobbs and staff*

#### *Women's Studies 201*

Introduction to feminist analysis. An introduction to feminist research methods and the debates surrounding them. An overview of feminist critiques of some traditional academic disciplines, their theoretical underpinnings and methods. Prerequisite: *Women's Studies 100*.

*Staff*

#### *Women's Studies-Classical Civilization 231a*

The experience of women in Greek archaic and classical periods (c. 700-300 B.C.) (See *Classical Studies*)

#### *Women's Studies-Classical Civilization 232b*

The role in society of Roman women in the late Republican and Imperial period (100 B.C.-A.D. 300.) (See *Classical Studies*)

#### *Women's Studies-Canadian Studies-English 266*

Canadian women's writing. (See *Canadian Studies*)

#### *Women's Studies-Canadian Studies 275*

Women in Canada. (See *Canadian Studies*)

#### *Women's Studies 300*

Feminist theory. An examination of the development of feminist theory through classic texts and the debates those texts have inspired. The course focuses on key debates in Marxism and socialist feminism, literary theory, psychoanalysis, and feminist epistemology. Lecture, seminar weekly. Prerequisite: *Women's Studies 100* or permission of instructor. *M. Hobbs*

#### *Women's Studies-English 310*

Gender and literature. (See *English*)

#### *Women's Studies-Canadian Studies-History 316*

Women in North America. (See *History*)

#### *Women's Studies-Comparative Development 325*

Women and development. An exploration of the theoretical, analytical and political issues in the study of women and development, using case material from developing countries and regions within developed countries. Prerequisite: *Comparative Development 100* or *Women's Studies 100* or permission of the instructor. *W. Lem*

#### *Women's Studies-Sociology 342*

Sociology of gender. (See *Sociology*)

#### *Women's Studies-Anthropology 369a*

Gender in prehistory. (See *Anthropology*)

#### *Women's Studies-History 375*

European women's history. (See *History*)

#### *Women's Studies 390, 391a, 392b, 393c*

Reading course. Designed to pursue special research interests in women's studies largely through independent study.

Details to be arranged in consultation with Women's Studies staff and proposal to be submitted to Program for approval.

*Women's Studies 395*

Special topics: Consult Program Office.

*Women's Studies-Sociology 3952*

Special topic: Immigrant women in Canada: Gender, race and class Issues. An exploration of different groups of immigrant women, beginning with early French and British immigrants and continuing with more recent arrivals. Using both academic scholarly literature and material in women's own voice, the course will focus on the social, economic, and political and legal mechanisms which shape the status, conditions and lives of immigrant women in Canada.

Prerequisite: *Sociology 100* or *Women's Studies 100* or permission of the instructor.

S. Arat-Koc

*Women's Studies 400*

Feminist praxis. Analysis of the issues, struggles, debates, conflicts and forms of organization which have shaped the first and second waves of feminism in North America and feminist movements in Third World today. The course will focus on the articulation of the feminist project with class and racial/national projects.

Prerequisite: *Women's Studies 200* and *Women's Studies 300*.

S. Arat-Koc

*Women's Studies 401*

Honours thesis. Single credit. Consult Program Office for information and procedure.

*Women's Studies-Anthropology 422*

Women: an anthropological perspective. Offered if staffing permits. (See Anthropology)

*Women's Studies-Political Studies 430*

Contemporary political analysis. Feminists theorize the political. (See Political Studies)

*Women's Studies-Sociology 461a*

Gender, regulation and resistance. (See Sociology)

*Women's Studies-Sociology 462b*

Women and social policy. (See Sociology)

*Women's Studies-English 475*

Advanced studies in American literature. Topic for 1994-1995: William Faulkner and Toni Morrison. (See English)

*Women's Studies 490, 491a, 492b, 493c*  
Reading course. Consult Program Office for registration and procedure.

*Women's Studies 495*

Special topics: Consult program office.

*Women's Studies-Canadian Studies 4951*

Special topic, 1994-95: Ecofeminism. An exploration of the intersections of feminism and environmentalism in theory and practice. Prerequisite: Permission of the instructor.

M. Hobbs

*Women's Studies-English 4952*

Women artists by women artists. (See English)

**Support courses**

Women's Studies Program Support Courses are subject to yearly variation. Contact Program Office for current year's listings.



## Joint Programs With Fleming College

The University has entered into several agreements with Sir Sandford Fleming College for the provision of joint degree and non-degree programs. The Trent-Fleming joint programs extend educational opportunities by combining theory and practice in a number of professional and career fields.

Currently, degree programs are available in geographical information systems, museum studies, and nursing. Non-degree certificate programs in police administration and in child and family studies are under consideration.

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### Geographical Information Systems

The Trent-Fleming Geographical Information Systems program leads to an Honours Bachelor of Science degree from Trent in Geography or in Environmental and Resource Science with an emphasis in geographical information systems. In addition, students completing the program will receive an advanced GIS Applications Specialist Certificate from Fleming's School of Natural Resources. The certificate will be recognized on Trent's official transcript of grades by the notation that, in addition to a normal major, the student has completed an Emphasis in Geographical Information Systems.

Selected students will enrol in Fleming's GIS Certificate program on a full-time basis after completing ten full courses towards a Trent Honours degree with suitable standing. Completion of the two-semester Fleming certificate will constitute the third quarter of the student's Honours program; five upper-year science courses will be transferred to the student's university record on completion of the GIS certificate with a minimum average of 70%.

Students are selected for this program on a competitive basis. After consultation with the appropriate chair(s) to ensure that the entire 20-course program meets all the requirements for graduation, a student seeking admission to the GIS option must

complete an application form by March 1 of the second quarter. Selection will take place shortly thereafter and will be based on the program of courses completed and on cumulative averages to date (including mid-year marks in the second quarter); applicants will be informed of the decision in time for the completion of Early Registration. All decisions will be subject to review upon receipt of final grades in the second quarter. Note: Students choosing the GIS option must satisfy all normal university and departmental degree requirements; the critical importance of careful academic planning is therefore to be emphasized. Please refer to the appropriate sections of the calendar for further details regarding academic regulations.

Enrolment in the GIS program is limited. Academic criteria will be of prime importance in assessing applicants. Normally, successful applicants would be expected to have completed at least three courses in the major, including the *one-hundred* level introductory course; in the case of Geography majors, completion of *Geography 201* would also be expected. Both departments require *Computer Studies 101a* and *102b* (or equivalent) as pre-requisites for entering the GIS program.

Students admitted to the GIS program will register as full-time Fleming students during the third quarter of their degree and will pay regular Community College fees. Classes will be held at the Lindsay campus of the School of Natural Resources, but Trent students will retain access to University faculty and facilities during their GIS year, and will be included normally in Trent's Early Registration procedures for the fourth quarter of the degree. Students who wish to retain their Trent College affiliation during their GIS year may do so for an additional fee.

Fleming's GIS curriculum will include digital mapping, geographic data acquisition, database management, graphics programming and GIS mapping applications as well as the general and theoretical principles governing the use of various geographical information systems.

Further details and an application may be obtained by contacting the Chair of the Department of Geography or the Chair of the Environmental and Resource Studies Program.

## Museum Studies Program

The Trent-Fleming Museum Studies program leads to a Trent Honours degree in any discipline with an emphasis in Museum Studies. In addition, students completing the program will receive an advanced certificate in Museum Management and Curatorship from Fleming College. The certificate will be recognized on Trent's official transcript of grades by the notation that, in addition to a normal major, the student has completed an Emphasis in Museum Studies.

Selected students will enrol in Fleming's Museum Management and Curatorship certificate program on a full-time basis after completing ten full courses towards a Trent Honours degree with suitable standing. Students who complete the three-semester Fleming certificate with a minimum average of 70% will receive four upper-year full-course equivalents towards the Honours degree. Note: the maximum number of transfer courses, including those from the Fleming certificate, cannot exceed half of the degree requirements.

Students are selected for this program on a competitive basis. After consultation with the chair of the appropriate academic department to ensure that the entire honours program meets all the requirements for graduation, a student seeking admission to the program must complete an application form by March 1 of the second quarter. Selection will take place shortly thereafter and will be based on the program of courses completed and on cumulative averages to date (including mid-year marks in the second quarter); applicants will be informed of the decision in time for the completion of Early Registration. All decisions will be subject to review upon receipt of final grades in the second quarter. Note: Students choosing the Museum Studies option must satisfy all normal university and departmental degree requirements; the critical importance of careful academic planning is therefore to be emphasized. Please refer to the appropriate sections of the calendar for further details regarding academic regulations.

Enrolment in the Museum Studies program is limited. Academic criteria will be of prime importance in assessing applicants. Normally, applicants would be expected to have completed at least three courses in their major before admission to the program.

Students admitted to the program will register as full-time Fleming students during the third quarter of their degree and will pay regular Community College fees. Trent students will retain access to university faculty and facilities during this year, and will be included normally in Trent's Early Registration procedures for the fourth quarter of the degree. Students who wish to retain their Trent College affiliation during this year may do so for an additional fee.

The Museum Management and Curatorship certificate is intended for those seeking a career in museum, gallery or heritage work. The curriculum is designed to train generalist museum professionals with competence in all aspects of museum practice and administration. Skills are developed through the combination of theory with practice at local museum and heritage sites.

Further details and an application form may be obtained from the Registrar's Office or the chair of the department in which you plan to major or a member of Trent's Museum Studies Committee: Elwood Jones (chair), Susan Jamieson, Dale Standen or Joan Vastokas.

## Nursing

This is a four-year integrated program offered jointly by Trent University and Sir Sandford Fleming College which leads to a Special Emphasis General Degree from Trent University in addition to a Nursing Diploma from Sir Sandford Fleming College. Students accepted into the program must meet the admission requirements of both institutions.

Additional information about the program and admission procedures are available from:

The Admissions Office  
Sir Sandford Fleming College  
Brealey Drive  
Peterborough, Ontario  
K9J 7B1  
Telephone: (705) 749-5530

During the Program students are enrolled concurrently in Trent academic courses as well as nursing and clinical courses at Sir Sandford Fleming College. The Program consists of a minimum of nine Trent courses plus the equivalent of six courses undertaken at Sir Sandford Fleming



College in Peterborough. Details of the Trent course requirements are given below.

### Required Courses

<i>Psychology</i>	101
	280
	340
<i>Sociology</i>	100
	363
and four of:	
<i>Psychology</i>	382
<i>Sociology</i>	241
	342
	366
	389
<i>Anthropology</i>	348
<i>Women's Studies</i>	100

### Course Sequence

#### Trent University

##### Year 1

*Sociology* 100

##### Year 2

*Psychology* 101

one of *Sociology* 241

*Sociology* 389

*Women's Studies* 100

*Anthropology* 348

##### Year 3

*Psychology* 280

*Sociology* 363

one of *Sociology* 366

*Sociology* 389

*Anthropology* 348

*Women's Studies* 100

##### Year 4

*Psychology* 340

two of *Psychology* 382

*Sociology* 342

*Women's Studies* (course to be determined)

*Sociology* 241

*Sociology* 366

*Anthropology* 348

#### Sir Sandford Fleming College

##### Year 1

#### Fall Term:

*Health Theory* 1330049

*Biology* 1380142

*Clinical I* 1110241

*Nursing in the Community* 1330067

#### Winter Term:

*Nursing II* 1330050

*Biology II* 1380143

*Clinical II* 1110366

*Clinical II* 1110367

*Nursing Theory and Nursing Research* 1330068

##### Year 2

#### Fall Term:

*Nursing III* 1330051

*Clinical III* 1110352

#### Winter Term:

*Nursing IV* 1330052

*Clinical IV* 1110353

##### Year 3

#### Fall Term:

*Nursing V* 1330053

*Organizational and Professional Aspects of Nursing* 1330054

*Clinical V* 1110354

#### Winter Term:

*Clinical VI* 1110355

##### Year 4

#### Fall Term:

*Nursing Models in Theory and Practice* 1330069

*Clinical VII* 1110356

#### Winter Term:

*Nursing Models in Theory and Practice* 1330070

*Clinical VIII* 1110357

#### Summer Term:

*Consolidation (14 weeks)* 1110358

## Certificate Programs

Trent Fleming Certificate Programs in Police Administration and Child and Family Studies are under consideration but have not yet been approved.

Further details may be obtained from Trent's Julian Blackburn College (748-1229) or from Sir Sandford Fleming College (749-5530, ext. 1222).

# Graduate Academic Calendar

(See *University Diary* for overall Calendar and listing of observed holidays)

## Spring Term 1994

May	2	Monday	Registration for Spring Term
June	3	Friday	Spring Convocation

## Fall Term 1994

September	6	Tuesday	Registration for Fall Term
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## Winter Term 1995

January	9	Monday	Registration for Winter Term
April	21	Friday	<b>Last date for oral examinations for Spring Convocation</b>
April	28	Friday	<b>Last date for submission of Master's theses to Office of Research and Graduate Studies for Spring Convocation</b>
May	1	Monday	<b>Last date for recommendations for Master's degrees for Spring Convocation</b>
June	2	Friday	Registration for Spring Term Spring Convocation

# Graduate Study at Trent University

### Postal Address:

Office of Research and Graduate Studies  
Trent University  
Peterborough, Ontario  
K9J 7B8

### Location:

Room 2.69, Otonabee College  
Nassau Campus

### Telephones:

Office of Research and Graduate Studies  
.....(705) 748-1245  
C.H. Taylor, *Associate Dean of  
Research and Graduate Studies*  
.....(705) 748-1478  
Mrs. P. Strode, *Graduate Studies Officer*  
.....(705) 748-1346

### Administration:

The Office of Research and Graduate Studies is responsible for the administration of graduate degree programs offered at Trent University and the coordination and promotion of research and scholarship within the University.

The Office is administered by the Associate Dean of Research and Graduate Studies and the Graduate Studies Officer and University Research Officer in cooperation with University committees for specific areas.

The Committee on Graduate Studies consists of members of faculty and graduate students from various disciplines, and this body makes executive decisions regarding graduate admissions and the application of general regulations, standards and procedures.

### E-Mail I.D.:

PSTRODE@TRENTU.CA

### Facsimile:

(705) 748-1625

## Graduate Academic Information

### *Programs of Study*

Programs of graduate study are introduced at Trent on a selective basis. Each program has been approved by 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.

The Master of Arts degree is offered in Anthropology, Canadian Heritage and Development Studies, and Methodologies for the Study of Western History and Culture, the Master of Science in Watershed Ecosystems, and the Master of Arts/ Science in Applications of Modelling in the Natural and Social Sciences.

The Anthropology program stresses Archaeology. The program in Canadian Heritage and Development Studies involves study in one of three interdisciplinary areas: Native Studies; Environmental and Heritage Studies; Regions and Regionalism. The focus of the Methodologies for the Study of Western History and Culture Program is upon the foundations and structures of modern knowledge in its historical and cultural contexts.

Graduates in Biology, Geography, or Environmental Science may enrol in Trent's Watershed Ecosystems Program. Emphasis is placed on interaction between various biological and geographical aspects of water and catchment areas as elements in the environment. Commencing January 1994, the Watershed Ecosystems Program will also offer postgraduate studies at the Ph.D. level.

The Applications of Modelling in the Natural and Social Sciences Program is oriented towards quantitative models, utilizing computational, mathematical or statistical techniques and is discipline-based but is not a program in Applied Mathematics.

In addition to degree programs at Trent, an agreement with Queen's University at Kingston allows for selective enrolment at the Master's and Doctoral levels in programs at Queen's with actual study and research supervision under Trent faculty on Trent's campus.

Complete information on each program offered under the auspices of the Office of Research and Graduate Studies is

presented in the Graduate Programs of Study section of this calendar. Prospective applicants should note particularly the admission requirements, the fields in which advanced study and research may be undertaken, and the program requirements, in addition to the regulations of the Graduate Studies Committee which are outlined in this Calendar.

### **Application**

Initial enquiries concerning graduate study at Trent University may be made to the graduate programs. However, applications for admission to graduate studies must be made on the prescribed form and submitted to:

Office of Research and Graduate Studies  
Trent University  
Peterborough, Ontario, Canada  
K9J 7B8

The deadline for receipt of applications for fall admission to graduate study is February 15. In any case, students are urged to apply at an early date. Late applications from students who meet our minimum admission standards will be considered in the order received when vacancies remain in the chosen program.

Candidates must arrange to have submitted to the Office of Research and Graduate Studies by the appropriate officials of the university or universities they have attended, official transcripts showing the subjects studied and the standing received in all undergraduate and any graduate work so far undertaken. Normally, applications should be supported by letters of recommendation from at least two faculty members who are familiar with the work of the candidate. Letters of recommendation must be mailed directly by faculty members.

Applicants must list courses currently being taken and must arrange to have the final standings in them forwarded as soon as the results become available.

### **Admission**

At least an upper second class standing (B+) in the final year at the Honours level in the department or interdisciplinary areas of the program in which the graduate degree is being sought at Trent, or its equivalent, will be required for approval of the admission of candidates for the Master's degree. Candidates who do not meet this requirement should consult the Graduate Program Director for

guidance in developing a program which would make them eligible for consideration for admission to a graduate program. They will not become candidates for the Master's degree until their academic standing has been brought up to the Honours level.

Applicants to the Ph.D. program in Watershed Ecosystems should normally have an M.Sc. degree.

All applications will be initially examined and evaluated by the appropriate programs. All supporting documents (transcripts, letters of reference, etc.) must be received before any application can receive formal consideration. A program's recommendation for those students being recommended for admission will be forwarded to the Office of Research and Graduate Studies whereupon the completed applications will be considered by the Graduate Studies Committee. The Office of Research and Graduate Studies will officially notify each applicant of the action taken on his or her application.

Official letters of acceptance are only for the academic year indicated. Successful applicants must reply in writing indicating whether or not they accept the offer of admission. If they are unable to commence studies in the term agreed upon, the programs reserve the right to reconsider their acceptance.

#### **Transfer of Credit**

Graduate courses completed at another institution may be accepted in partial fulfillment of Trent's degree requirements. Credit for such work will be determined by the Graduate Studies Committee on the recommendation of the program concerned.

#### **Qualifying Year**

Students whose background is not sufficient for direct entry into a graduate program may be admitted to a make-up or Qualifying Year. Applicants possessing undergraduate degrees which are comparable to an General (3-year) degree from Trent University (rather than an Honours degree) will normally be admitted to a Qualifying Year. Successful completion of a Qualifying Year recommended by the program concerned will permit the student to compete for admission on an equal basis with other applicants. Admission to a graduate program is not, however, guaranteed.

#### **Language Proficiency**

The Graduate Studies Committee may require a test of proficiency in the English language for candidates whose mother tongue is not English, by means of one of the following:

- a) The English Language Institute, Testing and Certification Div., North Univ. Bldg., University of Michigan, Ann Arbor, Michigan 48104, USA.
- b) TOEFL, Educational Testing Service, Princeton, New Jersey 08540, USA.

Applicants are expected to make their own arrangements for taking this test by contacting the centre in their locale or by writing to one of the above.

Where the language of instruction in the undergraduate program has been English, the Graduate Studies Committee is prepared to consider evidence of proficiency in the use of the English language other than that provided by the tests referred to above.

#### **Graduate Record Examinations**

Applicants for admission whose academic credentials are difficult to assess may be asked to take the Graduate Record Examination administered by the Educational Testing Service, Princeton, NJ, 08540, USA. Students are expected to make their own arrangements and will bear the cost of taking the Graduate Record Examinations.

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## **Master's/Doctoral Degree Regulations**

#### **Registration**

Students whose applications for admission to graduate study have been approved for full- (or part-) time study should present themselves for registration on the dates recorded in the Calendar. Graduate students, full- or part-time, proceeding to a degree must maintain continuous registration, either active or inactive, in each successive term from the time of initial admission until the end of term during which the requirements for the degree are completed.

Registration consists of the completion of a registration form which requires a statement of the program of studies to be followed for the current year, the name of the student's supervisor, the names of the members of the student's supervisory committee, and the thesis topic. If it is not

possible to state the thesis topic at the time of registration the field of research should be indicated. The registration form must be signed by the director of the program and the Graduate Studies Officer.

A personal data form must be completed at registration and revised in subsequent years.

Full-time Master's students beyond second year, and part-time students beyond third year, carry out registration on a per term basis. Full-time Doctoral students beyond third year, and part-time students beyond fourth year, carry out registration on a per term basis.

#### **Failure to Register**

Graduate students who fail to register for any term and have not been given an official leave of absence will be considered to have withdrawn voluntarily from their program.

For subsequent reinstatement, the student must make application to the Office of Research and Graduate Studies after which the program must make a written recommendation, outlining any academic conditions which it deems necessary.

#### **Full-time, Part-time and Inactive Status**

A graduate student may be either full-time, part-time or inactive.

##### *Full-time*

A full-time student is one who

- (i) is designated by the University as a full-time graduate student
- (ii) is geographically available and visits the campus regularly;
- (iii) is not regularly employed on other work for more than an average of 10 hours per week for any period for which he/she is registered as a full-time graduate student, and is not employed outside the University except by permission of his/her supervisor; and
- (iv) in the light of the foregoing identifies himself/herself as a full-time graduate student.

#### **Note:**

It is understood that a graduate student may be absent from the University while still under supervision (e.g., visiting libraries, attending a graduate course at another institution, doing field work). If such periods of absence exceed four weeks in any term written approval must be obtained from the program director and the Graduate Studies Officer. Irrespective of this provision, a student conducting

experimental work in an external laboratory would not normally be considered as a full-time student except by written permission of the Graduate Studies Officer upon recommendation of the supervisor.

If the student is employed on a Graduate Assistantship, the 10 hours per week should represent the total time spent by the student in connection with the appointment; that is, it includes time spent on preparation work, reading set assignments, marking examinations, maintaining office hours etc.

Students who at any time cease to meet all of the criteria for full-time status, but are in good standing and wish to continue with their studies, must change to part-time status. If this change in status takes place during a term, adjustments to time limits and fees are made effective from the start of the next term. Such a change requires the written consent of the student's supervisor and Graduate Program Director.

##### *Part-time*

Any student is considered to be part-time who does not meet the conditions for a full-time student. Normally, a part-time student will be taking considerably less than a complete program each academic year.

If a student changes his/her status from part-time to full-time, he/she must re-register. Such a change requires the written consent of the student's supervisor.

##### *Inactive/Leave of Absence*

Students who have valid reasons for not registering for a term may apply for permission exempting them from registering by:

1. writing to the Graduate Studies Officer stating the reasons for an exemption; and
2. requesting a statement from their supervisor that they will not be on campus (involved in activities related to graduate courses or the thesis) for four months, will receive no supervision, and will not use any university facilities (i.e., library, laboratories, computer centre, or receive any type of supervision through correspondence). The statement, which must be forwarded to the Graduate Studies Officer, must confirm that *no thesis work of any kind will be pursued* during the term in question. Exemptions, if granted, will be for one term only.

### Residence Requirements

Full-time Master's degree candidates shall spend a minimum of one year as full-time students after completion of an Honours program. Full-time Doctoral degree candidates shall spend a minimum of two years as full-time students after completion of a Master's program. A student may register as full-time off-campus provided that such an arrangement has been approved by the Graduate Studies Officer (see previous section). For part-time graduate students two years of part-time study shall be deemed equivalent to one year of full-time study, due adjustment being made for any time spent as a full-time student during the summer.

### Time Limits

The maximum time allowed to complete all requirements for the Master's degree from initial registration is three years for a full-time candidate or five years for a part-time candidate. The maximum time allowed complete all requirements for the Doctoral degree from initial registration is five years or nine years for a part-time candidate. (Note: see regulations pertaining to full-time/part-time status.)

When students change status from full-time to part-time (or vice-versa) the time remaining to complete degree requirements will be adjusted with one term of full-time study being equivalent to two terms of part-time study. Such adjustments will take effect at the start of the next term. In all cases, the total time to complete all degree requirements will not exceed five years (Master's) or nine years (Doctoral).

In the case of full-time students, the completion of course work is an absolute requirement by the end of two years (Master's; or three years Doctoral) in order to continue on in the program.

### Extension of Time Limits

No extensions of the prescribed time limits will be granted except under extra-ordinary circumstances. In such instances, a Time Limit Extension Request form must be completed by the student in consultation with the supervisor and submitted to the Graduate Program Director. If the Director supports the request, a recommendation will be referred to the Associate Dean for approval.

### College Affiliation

Every student is required to have college affiliation at Trent. All graduate students (full- and part-time) will be assigned to Peter Robinson College where arrangements have been made for access to Common Room and other facilities.

Full-time graduate students may request to be assigned or transferred to another of Trent's five residential colleges (in particular for purposes such as accommodation in residence or donning). Part-time graduate students may request to be assigned or transferred to Julian Blackburn College.

The colleges sponsor a series of guest lectures, sports and social activities, and have common areas for resident/non-resident students.

### Residence Accommodation

A limited number of residence spaces are reserved for first-year graduate students. The accommodation offered are in predominantly undergraduate residences, consisting of one 4-bedroom townhouse at Peter Robinson College (without meal plan) and single room(s) with meal plan at Trent's other residential colleges. The time of occupancy is normally the undergraduate academic year although some negotiation is possible for summer occupancy in the townhouse at Peter Robinson College. Graduate room allocations are made by the Office of Research and Graduate Studies. All rooms must be confirmed by July 10, 1994 by completion of a College Application Form and payment of a residence deposit in the amount of \$200.

### Supervision

A supervisory committee for each graduate student shall be named by the graduate studies committee of the program to which the candidate is attached and shall consist of the thesis supervisor and two other members of the program, with the supervisor as committee Chair.

The role of the committee shall be:

- a) To ensure that reasonable progress is being made by the student in his/her research and course work. The supervisor shall submit a report on this progress to the Graduate Studies Officer at the end of each Winter Term.
- b) To approve the thesis topic and any prescribed work.
- c) To recommend to the Graduate Studies Officer appropriate action (withdrawal,

further research or course work) in the light of the student's progress.

- d) To suggest the membership of the thesis examining committee when the final preparation of the thesis is in hand.

If a student's supervisor expects to be absent from the University for an extended period of time (i.e., two months or more) it is his/her responsibility either to make suitable arrangements with the student and the program for the continued supervision of the student or to request the program to appoint another supervisor. Such arrangements should be communicated to the Office of Research and Graduate Studies before the supervisor leaves the University.

Guidelines for graduate programs, graduate students, faculty and graduate studies committees are available from the Office of Research and Graduate Studies.

### Research and Thesis Requirement

Normally a candidate for a Master's/Doctoral degree will undertake research and write a thesis. In the thesis students should give evidence that they have made a logical and intelligent approach to the selected problem, and the language of the thesis should be clear and precise. The thesis should be as original as possible. However, the goal of originality should not be stressed to the extent that it precludes the examination of old subjects in new ways; nor should it elevate the 'undone' for its own sake, lest the obscure and trivial be emphasized.

In exceptional cases, for a Master's degree only, the thesis may be replaced by other appropriate course work. When the degree is taken by course work, a comprehensive examination may be required.

Although a thesis may be submitted at any time, candidates should note the thesis submission deadlines for the spring convocation in the academic Calendar.

### Courses

Normally a student will be required to complete, with at least a second class standing (B-), no fewer than two graduate courses. A program may prescribe additional graduate courses and the student may be required or permitted by the program to take courses in addition to those prescribed for credit. Subject to a review of the candidate's competence in his/her major subject, a candidate may be permitted to take one course in another department/program.

### Course Changes

A course change is the addition and/or deletion of one or more individual courses by a registered graduate student. A course change is the only acceptable procedure for revising a graduate student's registration. All course changes must be approved and authorized by the program director and forwarded to the Graduate Studies Officer.

### Audit Courses

Upon the recommendation of his/her supervisor, and with the permission of the Graduate Studies Officer, a graduate student may register to attend a course without receiving a grade or credit. Details of the policy and regulations for audit students are available from the Office of Research and Graduate Studies. It should be noted in particular that no grade will be assigned, that permission must be obtained from the course instructor and that a fee is charged.

### Grading System for Courses

The minimum passing grade for required graduate courses is second class (B-). Effective with the 1982 spring academic session, the letter grades and their numerical ranges are: A+ = 100-90; A = 89-85; A- = 84-80; B+ = 79-77; B = 76-73; B- = 72-70; F = 69-0.

In addition to alphabetical or numerical grades, the following symbols may also be used on grade reports. These symbols are also used on the academic transcript of students: AEG (Aegrotat Pass); DRP (Course Dropped); AUD (Audit Course); WDN (Withdrawn); INC (Incomplete).

### Aegrotat Standing and Incomplete Standing

Petitions for special consideration because of sickness or misfortune at any time during the academic session should be sent to the Graduate Studies Officer 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.)

Incomplete standing will be granted only in cases where a student is unable to complete in proper time the work requirement of a course for reasons beyond the student's control such as illness, physical or emotional disability,

loss of or damage to work already completed or in progress, or adverse seasonal effects on field or laboratory projects. Failure by a student to organize the workload in a course will not in itself be considered an adequate reason. Students wishing temporary incomplete standing at the end of a course must petition through the program involved and, where possible, properly support and document the reasons.

Incomplete should not be confused with aegrotat which applies only in cases where students are unable, through similar physical or emotional disability, to write or perform in final examinations.

### **Courses at Other Universities**

Under certain circumstances it is permissible for a student admitted to a degree program and registered at one Ontario university to enrol in approved credit courses at another university. Credit will be granted only if written permission is received from the Associate Dean and the program director prior to registration for the course work. Application forms for inter-university co-operation are available in the Graduate Studies Office.

### **Language Requirement**

Some programs may require a reading knowledge of a language other than English. Consult the program listings for specific language requirements.

### **Grade Reports**

Program directors must submit a grade report on each student at the end of every academic year indicating grades received in course work. A copy of the report will be mailed to the student by the Graduate Studies Officer.

### **Unsatisfactory Work**

On the recommendation of the program, approved by the Graduate Studies Committee, a student whose work is unsatisfactory may at any time be required to withdraw from the University.

### **Appeals**

Appeals procedures for graduate students parallel those established for undergraduates (see Undergraduate section of Calendar). In general, the procedures emphasize consultation and cooperation among the individuals most intimately concerned with any problem, while still allowing for an impartial review of difficult cases. Thus, problems concerning individual courses should first be discussed with the instructor, those

concerned with course programs should be discussed with the student's supervisory committee, and problems concerned with the application of program or University regulations should be brought to the attention of the program director or the Graduate Studies Committee. Review is accomplished by the impartial body with the best knowledge of the particular problem, e.g., the program director, the Graduate Studies Committee, or, in exceptional cases, the Special Appeals Committee.

### **Principles Governing Submission and Examination of Theses**

The thesis will be defended by the candidate in an oral examination before a thesis examining committee. In the examination students will be required to give evidence that they have a thorough knowledge of the field in which they have been working.

#### **1. Submission of Thesis for Examination**

- 1.1 Supervisory committee members shall review a complete typed version of the thesis and send a signed form to the Program Director verifying that the thesis should proceed to examination.
- 1.2 Depending on program requirements at least 3-5 copies of the thesis shall be deposited with the Program Director not less than ten weeks before the convocation at which the candidate expects to receive the degree.

#### **2. Examining Committee**

- 2.1 After the supervisory committee has confirmed that the thesis can proceed to examination, the supervisor identifies three potential external examiners to participate in the thesis examination and defence. The Examining Committee is named by the Graduate Program Director, in consultation with the Associate Dean, and the date, place and time of the defence determined.
- 2.2 The Examining Committee consists of 3-5 members, of whom at least one must be from outside the university.
- 2.3 The candidate's supervisor is a member of the Examining Committee and any or all members of the supervisory committee may be named as members of the Examining Committee, subject to the policy of the program concerned.



- 2.4 The External Examiner must not have any affiliation with the university or the candidate that might be construed as creating a conflict of interest.
3. **Thesis Examination**  
Copies of the thesis shall be distributed amongst the Examining Committee by the Program Director at least three weeks before the scheduled date of the oral, along with a covering letter from the Associate Dean explaining the status of the thesis and the range of options for its disposition. A form is supplied on which each examiner should verify whether they recommend that the oral examination should proceed. These forms must be returned to the Program Director at least one week before the scheduled date of the oral.
4. **Defence**  
The thesis will be defended by the candidate in an oral examination before the Examining Committee. In the examination candidates will be required to give evidence that they have a thorough knowledge of the field in which they have been working.
- 4.1 The defence normally shall be scheduled within a period of no fewer than three, and no more than six weeks from the submission of the thesis. The parties concerned may agree upon a postponement.
- 4.2 The Examining Committee, and the thesis defence examination, will be chaired by a person appointed by the Graduate Program Director.
- 4.3 Subject to the policy of individual graduate programs, any member of the university is free to attend an oral thesis defence examination.
- 4.4 The Chair will give priority to questions from members of the Examining Committee, and will adjourn the examination when the Examining Committee decides that further questioning is unnecessary.
- 4.5 The deliberations of the Examining Committee are held in camera. That is to say, only appointed members of the Examining Committee are present at this stage.
- 4.6 It is the responsibility of the Chair to see that a report on the examination is prepared before the Committee adjourns.
- 4.7 Four decisions are open to the Examining Committee, voting to be based on a simple majority:
- the thesis is approved as it stands, or
  - the thesis is approved provided certain minor or major revisions are made, or
  - the thesis is not approved as it stands but may be resubmitted, and re-examined by some or all of the Examining Committee (this may or may not involve another oral defence), or
  - the thesis is not approved.
- 4.8 If revisions are required, each member of the examining committee must provide a written list of required revisions to the Program Director immediately following the oral. **Minor revisions** are defined as corrections which can be made immediately to the satisfaction of the supervisor. **Major revisions** are defined as corrections requiring structural changes, or other substantive revision. When a thesis is accepted with major revisions, a precise description of the modifications must be included with the Examining Committee's report. It is then the responsibility of the candidate's supervisor to demonstrate to the Examining Committee that the required revisions have been made.
- 4.9 If the Examining Committee is not prepared to reach a decision concerning the thesis at the time of the thesis defence, it is the responsibility of the Chair to determine what additional information is required by the Committee to reach a decision, to arrange to obtain this information for the Committee, and to call another meeting of the Committee as soon as the required information is available. It is also the Chair's responsibility to inform the candidate that the decision is pending.
5. **Final Submission**
- 5.1 The Program Director, in consultation with the thesis supervisor, must verify that appropriate corrections have been made, and then submits a summary of the thesis defence and examination to the Office of Research and Graduate Studies.
- 5.2 An approved thesis may be submitted at any time following the oral defence. However, for candidates wishing to graduate at a particular convocation,

specific deadline dates are printed in the Graduate Academic Calendar section of the Graduate Studies Calendar. The general formula for establishing these dates is five weeks before Spring Convocation. Candidates not meeting these deadlines are required to re-register until the thesis has been formally submitted and approved by the University.

- 5.3 The formal submission of the thesis to the University is made to the Graduate Studies Officer, Room 2.69, Otonabee College. At this point, the thesis should be in its final typed version, but only the original copy should be submitted. The Graduate Studies Officer checks through the thesis with regard to format and then seeks final approval from the Committee on Graduate Studies. If there are any discrepancies in format, the student will be contacted by the Graduate Studies Officer.
- 5.4 After the thesis has been formally approved, the candidate submits the required copies and pays the cost for binding and microfilming.
6. **Microfilming of Thesis**  
When the thesis is submitted, the candidate is required to complete a "Non-Exclusive Licence to Reproduce Theses" (Form NL/BN91 [90-09]). This gives consent for the thesis to be microfilmed by the National Library of Canada. There is a fee for this service and the candidate is billed for this at the time the final approved theses are submitted.
7. **Binding of Thesis**  
Theses must be bound in Trent Green with front cover and spine writing in gold. Binding arrangements are made through the Office of Research and Graduate Studies.
8. **Copyright Regulations**  
For information concerning thesis borrowing and copyright law, please refer to Appendix IV of "A Handbook for Graduate Students of Trent University".

**Note:**

1. Arrangements and expenses for typing the thesis are the responsibility of the student.
2. Subject to the approval of the program concerned, a candidate may write his/her thesis and be examined in French.

3. A Handbook for Graduate Students of Trent University including a detailed guide on the preparation of theses is available from the Office of Research and Graduate Studies.

## Fees

The following regulations and fees apply to:

- (i) Canadian citizens within the meaning of the Canadian Citizenship Act;
- (ii) landed immigrants within the meaning of the Immigration Act;
- (iii) dependents of persons admitted to Canada under section 7(1)(a) of the Immigration Act (diplomatic, consular and other representatives of foreign countries, the U.N. and other international agencies, their dependents and suites);
- (iv) dependents of persons admitted under section 7(1)(h) of the Immigration Act for the temporary exercise of the profession, trade or occupation.



## GRADUATE FEE SCHEDULE

(based on 1993-94 fees and subject to revision for 1994-95)

	Full-time \$	Part-time \$
<b>TUITION</b>		
<b>Canadian/Landed Immigrant</b>		
- 1st Year (3-terms)	2,911.00	1,455.00
- 2nd Year (3-terms)	1,455.00	1,455.00
- ensuing years	485.00/term	1,455.00 in 3rd Year then 485.00/term
<b>Visa</b>		
- 1st Year (3-terms)	13,106.50	n/a
- 2nd Year (3-terms)	6,553.00	
- ensuing years	2,184.00/term	
<b>ANCILLARY</b>		
- Student Health Service	27.00	2.40
- Athletics	109.00	55.00
- Graduate Student Activities	27.00	11.00
- Non-resident College Fee	63.00	31.50
- Convocation Fee	11.25	5.70
<b>Optional</b>		
- Transportation Fee	122.00	n/a
- GSA Health Insurance	61.09	n/a
<b>RESIDENCE</b>		
- Single Room in Townhouse without Meals (Peter Robinson College)	\$3,052.00	September-April
- Single Room on Meal Plan (at colleges other than Peter Robinson)	\$5,363.00	September-April

### Notes:

- The University reserves the right to alter fees and fee structure.
- All students must register at the beginning of their program of study and must maintain continuous registration (except during approved leaves) until degree requirements have been completed and notification of approval to convocate has been received. Returning students who have an unpaid University account for fees and other charges at the time of registration will be deemed financially ineligible to register.
- Students enrolled under the Trent-Queen's agreement, while at Trent, are assessed Queen's tuition fees and Trent's ancillary fees.
- Students paying in two instalments will be charged a \$30.00 first instalment fee. Students who fail to pay the second instalment by the 15th of the first month in second term will be charged an additional \$50.00.
- Per term tuition and ancillary fees will be charged to full-time Master's students beyond the 2nd Year/full-time Doctoral students beyond 3rd Year (part-time Master's students beyond 3rd Year/part-time Doctoral students beyond 4th Year) of a graduate program. Convocation, GSA Activities, GSA Health Insurance, and Transportation fees will be charged in full in the Fall Term; Health Service, Athletics, and Non-resident College Fees will be divided between Fall and Winter terms.
- Pro-rated "part-term" refunds of tuition, ancillary and other University fees may be available to those who a) withdraw from a graduate program, or b) complete degree requirements part way through the third (Master's; fourth Doctoral) or subsequent year. Full refunds of term fees will be available to students who complete their degree requirements (including oral defence and all necessary revisions) before the count date for the term.

## Programs of Study

### Anthropology

The focus of the M.A. program in Anthropology is on the Art and Archaeology of the Americas. Areas of concentration within the program include: the paleoecology, prehistory and ethnohistory of Canada, Mesoamerica, and South America; Old World prehistory; the anthropology of art, architecture, and material culture; archaeological method and theory; and Canadian historical archaeology. Other fields of interest can occasionally be accommodated in collaboration with faculty, e.g., physical anthropology.

Students are required to complete three courses, and to conduct research and write a thesis on an approved topic within one of the fields and areas listed above.

#### Graduate Director:

S. M. Jamieson, M.A. (MANITOBA), PH.D. (WASHINGTON STATE)

#### Faculty

P.F. Healy, B.A. (CALIFORNIA-BERKELEY), M.A., PH.D. (HARVARD): Archaeology, New World Prehistory, Mesoamerica and lower Central America (on leave 1994-95); H.S. Helmuth, D.SC., DR.HABIL. (KIEL): Physical anthropology, osteology; Germany, North America, Maya; S.M. Jamieson, M.A. (MANITOBA), PH.D. (WASHINGTON STATE): Northeastern North American prehistory and ethnohistory, Boreal Forest archaeology, complex societies, lithic analysis, locational analysis, historical archaeology; M.J. Tamplin, B.A. (TORONTO), M.A. (LONDON), PH.D. (ARIZONA): Paleoecology, typology, computer applications; Boreal Forest, Europe, Africa (on leave Fall Term 1994); J.R. Topic, M.A., PH.D. (HARVARD): Archaeology, complex societies, spatial analysis- Peru, South America; T.L. Topic, M.A., PH.D. (HARVARD): Archaeology, ceramic analysis, prehistoric ideology, gender; Central Andes, South America, J.M. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA): Anthropology of art, art and architecture of Europe and the Americas, material culture, Northwest Coast, Arctic, Northeast; R.K. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA): Visual anthropology, minority groups, culture and communication; Eastern Europe, eastern Woodlands.

#### Conjunct Professors

D.M. Pendergast, PH.D. (UCLA); P.L. Storck, PH.D. (WISCONSIN); H. Saradi-Mendelovici, B.A. (ATHENS), M.A., PH.D. (MONTREAL); C.D. White, M.A. (TRENT), PH.D. (TORONTO)

#### Research Associate

G. Watson, M.A. (TRENT)

#### Regulations

The general regulations and requirements of Trent University for the M.A. degree apply to graduate study in Anthropology. Students are admitted into the program only in September. Normally, candidates who have fulfilled the admission requirements will be required to take at least three graduate courses, *normally including Anthropology 510*, from those offered by the program. In consultation with their supervisors students select a research problem in their area of interest, conduct research, and write a thesis. Candidates shall maintain at least a second class standing in their work and shall pass an oral examination in defence of their thesis. In addition, students will be expected to demonstrate capacity to read in the language or languages relevant to their field of research and may be expected to show adequate background knowledge in a related discipline, e.g. art history. For further information write to the Graduate Director of the Department of Anthropology.

#### External Funding

All students contemplating application to the M.A. program in Anthropology at Trent are urged to apply for an Ontario Graduate Scholarship as well as to additional external (non-University) funding agencies. Applications for OGS materials are available from the Office of Research and Graduate Studies at Trent University.

#### Graduate Assistantships

All students admitted will be placed in competition for graduate assistantships, which involve a maximum of four terms, normally spanning two consecutive undergraduate academic years, of teaching and related work within the department. Most eligible students receive some form of financial assistance.

### Courses Available to Graduate Students

#### *Anthropology 510*

Method and theory in archaeology (normally required). An examination and evaluation of major theories and methods and their relationship to problems in archaeological analysis and interpretation. Emphasis will be placed on recent advances and their implications for the development of the discipline.

*Staff*

#### *Anthropology 520*

Selected themes in Canadian archaeology. Research-oriented investigations into the archaeological record of Central, Eastern and Northern Canada and adjacent areas. Topics will vary according to interests of staff and students, but will include a review and analysis of regional methodological and theoretical approaches.

*S.M. Jamieson*

#### *Anthropology 525*

Problems in North American Archaeology. Research topics will vary according to interests of staff and students, but will focus on the culture history and process of a selected region. Emphasis will be placed upon methodological and theoretical approaches.

*S.M. Jamieson, M.J. Tamplin*

#### *Anthropology 530*

Problems in Mesoamerican archaeology. Review of the long and variegated history of human occupation in Mexico and Central America. Problems include the rise, the structure, and the fall of complex societies, cultural ecology, the nature of cultural frontiers, and other related issues of Mesoamerican prehistory.

*P.F. Healy*

#### *Anthropology 540*

South American archaeology. South American prehistory with focus on the evolution of social, political, and economic organization in a wide variety of environments. Factors such as warfare, trade, migration, craft production, subsistence, ritual and ideology are considered. Emphasis is given to Central Andean civilizations, though influence from and interaction with other regions is considered.

*J.R. Topic and T.L. Topic*

#### *Anthropology 550*

Problems in the art and architecture of the Americas. The development and character of prehistoric, historic, and contemporary native art of the Americas. Emphasis is laid upon an historical perspective and upon an interpretation of art/artifacts/architecture from the point of view of symbolic, semiotic, and dialogic anthropology.

*J.M. Vastokas*

#### *Anthropology 555*

Problems in Old World archaeology. Archaeological data and approaches from the Old World are employed to explore cultural problems common to all areas of the world. Research topics will vary from year to year.

*M.J. Tamplin*

#### *Anthropology 560*

Paleoecology of the Americas. This course examines the biology and ecology of prehistoric populations in various environmental and cultural settings.

*M.J. Tamplin and H.S. Helmuth*

#### *Anthropology 570*

Anthropology of art and material culture. Theoretical and methodological issues relevant to art and artifacts in general, whether prehistoric, historic, or contemporary world objects. Focus is on the concrete work in its broadest sociocultural context, with concern for the processes of its production and its reception within or without the cultural system. The course seeks to re-examine, to re-define, and to establish new procedures for the interpretation of art and artifacts in light of current interdisciplinary developments.

*J.M. Vastokas*

#### *Anthropology 590*

Special topic: Word and Image in Cross-cultural Perspective. An exploration of the relationship between visual and verbal systems of communication from the Upper Palaeolithic to the postmodern West. The course aims to delineate and to account for cross-cultural similarities and/or differences in especially visual narratives whether in meaning or function these be mythical, historical, legendary, biographic, liturgical, self-expressive, or propogandistic. Three hour seminar weekly.

*J.M. Vastokas*

## Applications of Modelling in the Natural and Social Sciences

This interdisciplinary graduate program provides for study towards an M.Sc. or M.A. degree in the application of techniques and theory of modelling in the natural sciences and social sciences. It encompasses the following traditional disciplines: Biology, Chemistry, Computer Science, Economics, Environmental Science, Geography, Mathematics, Physics, Psychology and Sociology.

The Master's program in the *Applications of Modelling in the Natural and Social Sciences* is designed to overcome some of the barriers to interdisciplinary collaboration by bringing together, at the graduate level, students who are actively applying modelling techniques in their thesis research in a broad range of disciplines. The research is in the social and natural sciences, and in fields in which Trent has demonstrated strong research performance. Although it is oriented towards quantitative models, utilizing computational, mathematical or statistical techniques, it is discipline-based and is not a program in Applied Mathematics. It has three primary objectives:

1. The teaching of fundamental and common analytical modelling techniques required for research in a large number of quantitative fields.
2. The cross-fertilization that comes from sharing ideas with researchers in other disciplines, and the development of the communication skills required for this to occur.
3. Sufficient training of the student in his/her chosen discipline, including coursework and a research thesis, to permit progression to a disciplinary Ph.D. program at another institution.

Students are involved both in thesis research and coursework in their "home" discipline, and in interdisciplinary study. They carry out coursework in the foundations and methods of quantitative modelling and participate in an interdisciplinary seminar. In this seminar the student discusses, in a way comprehensible to the audience, the system being modelled, the model developed, and the means of validation of the model; here the emphasis is upon the

modelling process itself rather than on the relevance of the results to the discipline of the research. Through this seminar the students develop the skills required to communicate with researchers outside their own discipline, and develop a perspective on their own and other disciplines not obtainable from within a single-discipline context.

### Specific Admission Requirements

The normal requirement for admission into this program is an upper second class (77 or better) (B+ at Trent) standing, or its equivalent, in a joint or single honours B.Sc. or B.A. degree in one of the traditional disciplines (see above). Prior to acceptance, a Core Faculty member must have been identified who will supervise the student's work. Prospective students must be reasonably well versed in mathematics, statistics and computing. They must have one calculus course beyond the introductory level and some familiarity with linear algebra.

### Faculty

#### Director

A.J. Slavin, M.Sc. (TORONTO), PH.D. (CAMBRIDGE)

#### Chemistry:

R.E. March, B.Sc. (LEEDS), PH.D. (TORONTO); K.B. Oldham, PH.D., D.Sc. (MANCHESTER); J.M. Parnis, B.Sc., PH.D. (TORONTO)

#### Computer Studies:

R.T. Hurley, PH.D. (WATERLOO); S.B. Regoczei, M.Sc. (TORONTO)

#### Economics:

D.C.A. Curtis, M.A. (QUEEN'S), PH.D. (MCGILL); J.A. Muldoon, M.A. (GUELPH), PH.D. (MCMASTER); K.S.R. Murthy, M.Sc. (KARNATAK), M.A. (DELHI, WESTERN), PH.D. (WESTERN)

#### Environmental and Resource Studies:

W.F.J. Evans, M.A., PH.D. (SASKATCHEWAN)

#### Geography:

J.G. Cogley, M.A. (OXFORD), M.Sc., PH.D. (MCMASTER); P. Lafleur, M.Sc. (TRENT), PH.D. (MCMASTER); C.L. McKenna Neuman, PH.D. (QUEEN'S); R. Ponce-Hernandez, M.Sc. (CHAPINGO), PH.D. (OXFORD)

#### Mathematics:

C. Carter, B.Sc., PH.D. (LONDON) (Emeritus); D.G. Poole, M.Sc., PH.D. (MCMASTER); B. Zhou, PH.D. (SOUTH CAROLINA)

*Physics:*

K. De Bell, M.Sc., Ph.D. (LONDON); J.W. Jury, M.Sc., Ph.D. (TORONTO); A.J. Slavin, M.Sc., (TORONTO), Ph.D. (CAMBRIDGE)

*Psychology:*

D.J. Kennett, Ph.D. (MCMASTER)

*Conjunct Professor*

P.A. Davis, M.Sc., Ph.D. (TORONTO)

**Regulations**

The general regulations and requirements of Trent University for the M.Sc. or M.A. degree apply to this graduate program. Candidates are required to submit and be examined on a research thesis supervised by one of the Core Faculty listed above. Selection of the research topic is made by the student together with her/his supervisor and graduate supervisory committee (typically three Core Faculty members including the supervisor and the Chair of the home department).

Coursework counts for about one-third of the work towards the degree. A grade of at least B- (70) must be obtained in each of the graduate courses. Each student must satisfactorily complete at least five one-term modelling courses, consisting of three courses in the philosophical, mathematical and computational aspects of modelling, and two courses in the home discipline. The required coursework is normally completed in two terms, allowing the summer terms and the entire second year to be devoted to uninterrupted research. The student is also required to attend a regular seminar on modelling and to make one presentation each year.

**Courses Available to Graduate Students***AM 501 a/b, AM 502 a/b*

Discipline-specific courses in the home department. These may be given by the research supervisor in a reading/project course format.

*AM 561a*

The foundations of modelling. What modelling is and how it interfaces with related activities such as data gathering, simulation and hypothesis testing.

*AM 562a/b*

Advanced topics in modelling. Prerequisite: *AM 561a* or equivalent.

*AM 571a*

Mathematical aspects of modelling. Various mathematical approaches to modelling are illustrated, the emphasis being on the methods rather than on the

mathematical detail. The course discusses such topics as stochastic and deterministic modelling, dimensional analysis and nonlinear systems. Prerequisite: a university calculus course beyond the introductory level.

*AM 572a/b*

Special topics in the mathematics of modelling. Prerequisite: *AM 571a* or equivalent.

*AM 581b*

Computational aspects of modelling. Common computational techniques in modelling: simulation, numerical analysis, solutions of differential and difference equations. Prerequisite: the ability to program a computer in at least one computational language.

*AM 582a/b*

Advanced topics in computational aspects of modelling. Prerequisite *AM 581b* or equivalent.

*AM 590*

Seminar on applications of modelling. Each student in the program makes one presentation per year on his/her research, with emphasis on the assumptions, methodology and analysis of the models used. These presentations are complemented by contributions from invited speakers and Core Faculty. This seminar course will be given a pass/fail grade every year, based on the presentations, attendance and participation by the student. A student's presentation will be attended and graded by her/his Supervisory Committee. Attendance is compulsory.

Students are normally required to take *AM 501a/b, 502a/b, 561a, 571a, 581b*.

Students with advanced preparation in the material covered in any of *561a, 571a* or *581b* may appeal to take the corresponding advanced course instead: *562a/b, 572a/b* or *582a/b*, respectively.

**Financial Support**

The majority of students accepted are offered a Teaching Assistantship. These stipends are frequently increased by research stipends provided from research funds. This occurs most often in disciplines in the natural sciences. Canadian candidates are encouraged to apply for national and provincial scholarships (NSERC and OGS awards). The program also provides funds to cover some overhead research costs such as laboratory and computing supplies, equipment and some conference travel.

## Biology

(See Applications of Modelling, Watershed Ecosystems and Trent-Queen's Programs)

## Canadian Heritage and Development Studies

This collaborative interdisciplinary M.A. program is offered by the Frost Centre for Canadian Heritage and Development Studies and involves faculty from Administrative Studies, Canadian Studies, Cultural Studies, Environmental and Resource Studies, Native Studies and Women's Studies in addition to the departments of Economics, English, French, Geography, History, Political Studies, and Sociology.

Areas of concentration within this M.A. program are the following: Native Studies, Environmental and Heritage Studies, Region and Place within Canadian Society. There is also an interest both in the North and Heritage Management.

Applications will be considered from candidates with an Honours degree in a relevant area, an interest in interdisciplinary research, and some understanding of Canada.

### Program Director

J.S. Marsh, B.A. (READING), M.S.C. (ALBERTA), PH.D. (CALGARY)

### Faculty

S. Arat-Koc, B.A. (BOGAZICI), M.A. (WATERLOO), PH.D. (TORONTO); J.M. Bordo, B.A. (MCGILL ALBERTA), M.A., M.PHIL., PH.D. (YALE); R.T. Bowles, B.S.C. (BRIGHAM YOUNG), PH.D. (OREGON); A.G. Brunger, B.S.C. (SOUTHAMPTON), M.S.C. (ALBERTA), PH.D. (WESTERN ONTARIO); R. Campbell, B.A. (TRENT), M.A. (TORONTO), PH.D. (LONDON); M.J. Castellano, B.A. (QUEEN'S), M.S.W. (TORONTO); D.M. Clarke, B.A. (TRENT), M.A. (MCMMASTER), PH.D. (CARLETON); D.C.A. Curtis, M.A. (QUEEN'S), PH.D. (MCGILL); M. Gunther, B.A. (WITWATERSRAND), PH.D. (NORTH CAROLINA); F.M. Helleiner, M.A., PH.D. (WESTERN ONTARIO); B.W. Hodgins, B.A. (WESTERN ONTARIO), M.A. (QUEEN'S), PH.D. (DUKE); V. Hollinger, M.A. (CONCORDIA), M.ED. (NEWCASTLE-UPON-TYNE); M. Huberman, B.A. (MCGILL), M.A., PH.D. (TORONTO); C.V. Huxley, B.A. (YORK, ENG.), M.A. (SIMON FRASER), PH.D. (TORONTO); J.N.

Jennings, B.A. (TORONTO), M.A. (CALGARY), PH.D. (TORONTO); E.H. Jones, B.A. (SASKATCHEWAN), M.A. (WESTERN ONTARIO), PH.D. (QUEEN'S); S.H.W. Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); P. Kulchyski, B.A. (WINNIPEG), M.A., PH.D. (YORK); M. Lacombe, M.A., PH.D. (YORK); R.A. Lockhart, M.A. (SIMON FRASER), PH.D. (ESSEX); J.S. Marsh, B.A. (READING), M.S.C. (ALBERTA), PH.D. (CALGARY); D. McCalla, B.A. (QUEEN'S), M.A. (TORONTO), D.PHIL. (OXFORD); D.N. McCaskill, B.A. (WINNIPEG), M.A. (CARLETON), PH.D. (YORK); J. Millard, B.A. (MCMMASTER), M.L.S. (TORONTO); J.S. Milloy, B.A. (ST. PATRICK'S), M.A. (CARLETON), PH.D. (OXFORD); D.R. Morrison, M.A. (SASKATCHEWAN), D.PHIL. (SUSSEX); F. Nutch, M.A. (HAWAII), PH.D. (YORK); R.C. Paehle, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH), PH.D. (BRITISH COLUMBIA); M.A. Peterman, A.B. (PRINCETON), M.A., PH.D. (TORONTO); R.D. Powell, LIC. EN HISTORIA (CORDOBA), PH.D. (MCGILL); M.L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO); J. Sangster, B.A. (TRENT), M.A., PH.D. (MCMMASTER); D. Sheinin, B.S.C. (TORONTO), M.A., PH.D. (CONNECTICUT); S.D. Standen, B.A. (BRITISH COLUMBIA), M.A. (OREGON), PH.D. (TORONTO); J.E. Struthers, M.A. (CARLETON), PH.D. (TORONTO); T.H.B. Symons (Vanier Professor Emeritus); G. Thibault, B.A., B.ED., M.A., PH.D. (DALHOUSIE); Y. Thomas B.A. (UQAM), M.A., PH.D. (MONTREAL); D. Torgerson, A.B. (CALIFORNIA-BERKELEY), M.E.S. (YORK), M.A., PH.D. (TORONTO); C. Verduyn, B.A. (TRENT), M.A., PH.D. (OTTAWA); J.H. Wadland, M.A. (WATERLOO), PH.D. (YORK); K. Walden, M.A., PH.D. (QUEEN'S); J. Wearing, B.A. (WESTERN ONTARIO), M.A. (TORONTO, OXFORD), D.PHIL. (OXFORD); A.L. Wernick, B.A. (CAMBRIDGE), M.A. (TORONTO); T.H. Whillans, B.A. (GUELPH), M.S.C., PH.D. (TORONTO); P. Wylie, B.S.C. (QUEEN'S, BELFAST), M.A., PH.D. (QUEEN'S)

### Regulations

The general regulations and requirements of Trent University for the M.A. degree apply to the Canadian Heritage and Development Studies Program. The main emphasis will be on the research and writing of an interdisciplinary thesis on an approved topic within a maximum period of three years. Two graduate courses comprising *CHDS 500*, and one of *CHDS 510*, *CHDS 520*, *CHDS 530*, or *CHDS 531* are also required. Candidates must attain at least a second class standing (B-) in their work, and shall pass an oral examination in defence of their thesis.



Additional requirements appropriate to the candidate's field may be specified by the supervisory committee.

### Courses

#### CHDS 500

**Interdisciplinary Colloquium:** This course examines and provides examples of conceptual and practical aspects of interdisciplinary research in Canadian Heritage and Development Studies. In particular, it deals with the concept of, approaches to, sources for, and progress on an M.A. thesis.

*J.S. Marsh and guests*

#### CHDS 510

**Native Studies:** This course provides the forum for an interdisciplinary study of native people in Canada. It is organized around the manner in which academic perspectives have altered in response to the changing conditions of native peoples. It emphasizes community-based research sensitive to the native cultural milieu in exploring the evolving relationship between native people and mainstream social, political and economic structures. Specifically, the course studies the contributions of history, anthropology, sociology, political science, economics and education to native studies through an examination of such discrete subject areas as ethno-history, community development, environment, adult education, indigenous knowledge and identity development.

*D.N. McCaskill*

#### CHDS 520

**Region and Place within Canadian Society.** This course examines, from an interdisciplinary perspective, how ideas concerning the importance of region and a sense of place have been central to explanatory approaches to the study of Canada. This course examines the concepts of region and place through selected case studies flowing out of each student's thesis research.

*J.E. Struthers*

#### CHDS 530

**Environment and Heritage:** Bioregionalism. This concept has received increasing attention from persons interested in ecological planning, appropriate technology, sustainable development, and related initiatives. The focus will be on the Haliburton section of the Otonabee watershed. This area is considered from both a historic and a contemporary perspective.

*J.H. Wadland, T.H. Whillans*

#### CHDS 531

**Environment and Heritage: Heritage Resources Management.** This course concerns heritage resources such as historical buildings, sites, parks and landscapes, reconstructed historical sites, museums, artifacts, archives, and historical activities. It examines their value, use, protection, management and interpretation. The subject is approached from interdisciplinary, conceptual, practical, and mainly Canadian perspectives. It involves biweekly seminars, site visits, and a project undertaken in cooperation with a heritage agency.

*J.S. Marsh and managers of heritage agencies*

#### Thesis Supervision

Theses will be supervised by a committee consisting of a primary supervisor, who must be a tenured faculty member of the Frost Centre, a secondary supervisor, who must be a member of the Frost Centre and another secondary supervisor, who may be from outside the university, if appropriately qualified. The committee must represent at least two of the disciplines or programs involved in Canadian Heritage and Development Studies.

#### Financial Support

Applicants are encouraged to seek external scholarships where available. All students admitted will be considered for teaching and research assistantships for a maximum of four terms, normally spanning two consecutive undergraduate academic years.

For further information write to the Director of the Frost Centre, Trent University.

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## Chemistry

(See Applications of Modelling and Trent-Queen's Programs)

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## Classical Studies

(See Trent-Queen's Program)

## Computer Studies

(See Applications of Modelling Program)

## Economics

(See Applications of Modelling Program)

## Environmental Studies

(See Applications of Modelling Program)

## Freshwater Science

Admissions temporarily suspended.

The Freshwater Science graduate program is a collaborative Master's program involving Biology, Chemistry, Environmental and Resource Studies, Geography and Physics and is a special emphasis segment of Trent's Watershed Ecosystems Program.

The major fields within this segment of the program are chemical-physical studies of the environment with particular reference to water. Included is research into trace-element identification, instrumentation for measurement of dissolved oxygen detection of radioactivity in natural waters and climate change with emphasis on ice and water.

Applications will be considered from Honours graduates in any of the five collaborating-disciplines. Experience in Environmental Science is an advantage. Graduates from the program will receive a degree in their own discipline with 'Freshwater Science' in parentheses, thus "M.Sc. Chemistry (Freshwater Science)" or "M.Sc. Physics (Freshwater Science)" etc.

Candidates will be required to undertake research on a topic in the area of Freshwater Science approved by a Supervisory Committee of faculty drawn from the disciplines concerned.

### Faculty

#### Director

R.D. Evans, B.Sc. (TORONTO), PH.D. (MCGILL)

### Chemistry

P.F. Barrett, M.Sc. (QUEEN'S), PH.D. (TORONTO); R.E. March, B.Sc. (LEEDS), PH.D. (TORONTO), F.C.I.C.; K.B. Oldham, D.Sc., PH.D. (MANCHESTER), F.R.I.C., F.C.I.C.

### Physics

J.W. Jury, M.Sc., PH.D. (TORONTO); A.J. Slavin, M.Sc. (TORONTO), PH.D. (CAMBRIDGE)

### Biology

M. Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), PH.D. (PRINCETON); D.C. Lasenby, B.Sc. (TRENT), PH.D. (TORONTO)

### Geography

J.M. Buttle, B.A. (TORONTO), PH.D. (SOUTHAMPTON); J.G. Cogley, M.A. (OXFORD), M.Sc., PH.D. (MCMASTER); C.H. Taylor, M.A. (CANTERBURY), PH.D. (MCGILL)

### Environmental and Resource Studies

R.D. Evans, B.Sc. (TORONTO), PH.D. (MCGILL); W.F.J. Evans, M.A., PH.D. (SASKATCHEWAN), F.R.S.C.

### Regulations

The general regulations and requirements of Trent University for the M.Sc. degree apply to the Freshwater Science program. Candidates will be required to complete the course *Freshwater Science 500*, and one other graduate course, normally offered by the department (Biology, Chemistry, Geography, Physics) of the candidate's discipline. Candidates must submit a thesis on an approved topic within a maximum period of three years. Candidates must attain at least a second class standing in course work examinations and must pass an oral examination in defence of the thesis. Additional requirements appropriate to the candidate's field of enquiry may be specified by the supervisory committee. Attendance at general departmental lectures and research colloquia will be expected.

## Geography

(See Applications of Modelling, Watershed Ecosystems and Canadian Heritage and Development Studies Programs)

## Mathematics

(See Applications of Modelling Program)

## Methodologies for the Study of Western History and Culture

Trent's M.A. program in Methodologies for the Study of Western History and Culture was established in 1988 as the result of an initiative from faculty in a range of disciplines, including Cultural Studies, Philosophy, History, English, Classics and Sociology. Interdisciplinary in spirit and emphasis, the program focuses on contemporary issues concerning the interpretation/analysis of Western culture, past and present, using the term "culture" in its widest sense. It responds to a situation in which the human sciences, without having resolved traditional problems concerning strategies for (and the status of) their various kinds of inquiry, have been overtaken by new problems in which once foundational categories, assumptions and dichotomies have been radically challenged by deconstructionist, feminist psychoanalytic, ecological and anti-Eurocentric critiques.

The aim of the program is to enable students to engage with these issues in the context of substantive projects of research. Particular areas of emphasis are: textuality, semiotics and discourse analysis; nature, culture and technology; gender and feminist theory; media and popular culture; and the philosophy and history of science.

Student work centers on the thesis (to be supervised by faculty from two disciplines), and on the Methodologies Seminar which involves all students and faculty in the program.

The degree course is intended both as a preparation for doctoral studies, and as a qualification in itself for those (e.g. in teaching, media, law, or government service) pursuing a non-academic professional career.

Applications will be considered from candidates with an Honours degree in a relevant discipline or disciplines, and an interest in interdisciplinary research.

### Faculty

#### *Program Director*

A.L. Wernick, M.A. (CAMBRIDGE), M.A. (TORONTO) [Cultural Studies]

#### *Program Committee*

Z. Baross, B.A. (U.B.C.), M.A. (LONDON), PH.D. (AMSTERDAM) [Cultural Studies]; J. Bordo, B.A. (MCGILL, ALBERTA), M.PHIL.,

PH.D. (YALE) [Cultural Studies]; C.V. Boundas, M.A., PH.D. (PURDUE) [Philosophy]; R.E. Carter, M.DIV. (HARVARD), M.A., PH.D. (TORONTO) [Philosophy]; J.A. Fekete, M.A. (MCGILL), PH.D. (CAMBRIDGE) [Cultural Studies and English]; B.J. Hodgson, M.A. (TORONTO), PH.D. (WESTERN ONTARIO) [Philosophy]; D.G. Holdsworth, M.SC. (MCMASTER), PH.D. (WESTERN ONTARIO) [Environmental and Resource Studies]; S.H.W. Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO) [English and Cultural Studies]; B.L. Marshall, B.A., M.A. (GUELPH), PH.D. (ALBERTA) [Sociology, Women's Studies]; S.B. Regoczei, M.SC. (TORONTO) [Computer Studies]; L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO) [Philosophy]; E. Stavro-Pearce, M.A., PH.D. (TORONTO) [Political Studies]; D.F. Theall, B.A. (YALE), M.A., PH.D. (TORONTO) [English and Cultural Studies] (Emeritus); D.K. Torgerson, A.B. (CALIFORNIA-BERKELEY), M.E.S. (YORK), M.A., PH.D. (TORONTO) [Administrative Studies and Political Studies]

### Regulations

The general regulations and requirements of Trent University for the M.A. degree apply to the Methodologies Program. Candidates are expected to submit a thesis on an approved topic within two years. At least two courses are required: the Seminar, and one other in a related field. Candidates must attain at least a second class standing in the course work and must pass an oral examination in defense of the thesis. Additional requirements appropriate to the candidate's field may be specified by the supervisory committee.

### Courses

#### *M500*

Seminar on methodology. The seminar brings together all faculty and students enrolled in the program for an intensive exploration of competing contemporary theoretical perspectives bearing on the study of Western history and culture. The focus will be on problems of value, ideology, interpretive "prejudice" language and cultural forms and situations, in the context of a broadly defined theme which will vary from year to year.

*A. Wernick and staff*

#### *M590*

Reading Course.

**Thesis Supervision**

Theses will be supervised by two faculty representing at least two of the disciplines or programs involved, one of whom will be named the principal supervisor. It may be recommended that additional supervision be provided by adjunct faculty or other members of the program.

**Graduate Assistantships**

Applicants are encouraged to seek external scholarships where available. All students admitted will be considered for teaching and research assistantships for a maximum of four terms, normally spanning two consecutive undergraduate academic years.

For further information write to the Director of Methodologies for the Study of Western History and Culture, Peter Robinson College, Trent University.

**Physics**

(See Applications of Modelling and Trent-Queen's Programs)

**Psychology**

(See Applications of Modelling Program)

**Sociology**

(See Applications of Modelling Program)

**Trent-Queen's**

Under the terms of an agreement between Trent University and Queen's University at Kingston, faculty of Trent University may undertake the supervision and instruction, at Trent University, of graduate students enrolled for M.Sc. or Ph.D. degrees at Queen's University. The Trent faculty members who participate in this arrangement will have been admitted to the Graduate Faculty and will have been appointed as adjunct faculty at Queen's University. Students who wish to enrol at Queen's University and pursue graduate study at Trent University must make application initially to Trent University.

*Associate Director*

R.E. March, B.S.C. (LEEDS), PH.D. (TORONTO), F.C.I.C.

**Trent Faculty Currently Holding Adjunct Appointments at Queen's**

These are listed under the collaborating departments:

*Biology/Environmental and Resource Studies*

M. Berrill, B.S.C. (MCGILL), M.S.C. (HAWAII), PH.D. (PRINCETON); R.D. Evans, B.S.C. (TORONTO), PH.D. (MCGILL); T.C. Hutchinson, B.S.C. (MANCHESTER), PH.D. (SHEFFIELD); C.D. Metcalfe, B.S.C. (MANITOBA), M.S.C. (NEW BRUNSWICK), PH.D. (MCMASTER); E. Nol, B.S.C. (MICHIGAN), M.S.C. (GUELPH), PH.D. (TORONTO)

*Chemistry*

R.E. March, B.S.C. (LEEDS), PH.D. (TORONTO), F.C.I.C.; K.B. Oldham, D.S.C., PH.D. (MANCHESTER), F.R.I.C., F.C.I.C.; J.M. Parnis, B.S.C., PH.D. (TORONTO)

*Classical Studies*

J.P. Bews, B.A. (QUEEN'S), M.A., PH.D. (LONDON); I.C. Storey, M.A. (TORONTO), M.PHIL. (OXFORD), PH.D. (TORONTO)

*Physics*

K. De Bell, M.S.C., PH.D. (LONDON); J.W. Jury, M.S.C., PH.D. (TORONTO); A.J. Slavin, M.S.C. (TORONTO), PH.D. (CAMBRIDGE)

*Psychology*

P.T.P. Wong, B.A. (CARLETON), M.A., PH.D. (TORONTO)

**Courses**

Trent does not offer single discipline graduate programs in Chemistry or Physics. However, approved graduate courses listed below may be available for credit in Trent's Applications of Modelling Program, the Trent-Queen's Co-operative Program in Graduate Studies, or through other special arrangements such as the Ontario Graduate Visiting Student Plan. If taken in the Modelling Program, these courses would be given an *AM501a* or *AM502b* designation.

**Chemistry***Chemistry 500a/b*

Advanced Topics in Physical Chemistry.

*Chemistry 501a/b*

Electrochemistry.

*Chemistry 502a/b*

Chemical Processes.

*Chemistry 511a/b*

Synthetic Organic Chemistry.

*Chemistry 520alb*

Selected Topics in Inorganic Chemistry.

*Chemistry 530alb*

Plant Metabolism.

**Physics***Physics 500alb*

Quantum Mechanics.

*Physics 501alb*

Advanced Quantum Mechanics.

*Physics 510alb*

Surface Science.

*Physics 520alb*

Nuclear Physics.

*Physics 530alb*

Statistical Mechanics.

*Physics 540alb*

Solid State Physics.

*Physics 550alb*

Electromagnetism.

*Physics 551alb*

Electrodynamics.

*Physics 590*

Advanced Topics.

**Financial Support**

All graduate students enrolled at Queen's University and resident at Trent are eligible for financial support from funds normally available at Queen's.

Financial support may be available to graduate students as compensation for assistance in teaching and research. Details are arranged individually by the supervisor of each graduate student.

For further information write to the Graduate Studies Officer.

**Watershed Ecosystems**

The Watershed Ecosystems Graduate Program offers instruction leading to either a M.Sc. or a Ph.D. degree. Applicants should hold undergraduate Honours degrees in Biology, Geography, or Environmental Science. A qualifying year can be arranged for those who do not meet minimum standards, but no guarantee of subsequent admission to the program is implied. Prospective Ph.D. students will normally have an M.Sc. degree. Applicants who have achieved excellent standing at the honours baccalaureate level, and who wish to proceed directly to doctoral study, will enrol, in the first instance, in a Master's degree. If the student achieves a superior academic record and shows particular aptitude for research, the Graduate Studies

Committee, on the recommendation of the Watershed Ecosystems Program executive, may authorize transfer to the Ph.D. program without requiring completion of the M.Sc. degree.

The program offers instruction in three areas of emphasis: toxicology and fate of contaminants; ecological processes and ecosystem structure; and physical and chemical environmental processes. Candidates will be required to undertake research on a topic that relates to the interests of a member of the faculty as outlined below. They will be encouraged to concentrate on interdisciplinary topics and to utilize the expertise and resources of each of the departments involved in the program.

*Program Director*

To be named.

*Faculty and Research Areas*

W. P. Adams, B.A. (ENGLAND), M.Sc., Ph.D. (MCGILL); *Hydrometeorology, snow and ice*; M. Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), Ph.D. (PRINCETON); *Behavioural ecology*; J.M. Buttle, B.A. (TORONTO), Ph.D. (SOUTHAMPTON); *Hydrology, fluvial geomorphology*; J.G. Cogley, M.A. (OXFORD), M.Sc., Ph.D. (MCMASTER); *Fluvial Geomorphology, hydrology, Arctic*; R.D. Evans, B.Sc. (TORONTO), Ph.D. (MCGILL); *Environmental biogeochemistry, trace metal cycling*; W. Evans, B.A., M.A., Ph.D. (SASKATCHEWAN); *Ozone depletion, global warming*; M. Fox, B.A. (PENNSYLVANIA), M.E.Des. (CALGARY), Ph.D. (QUEEN'S); *Fish ecology, pond culture*; M. Havas, B.Sc., Ph.D. (TORONTO); *Acid precipitation, toxicity of metals and acidification*; T. Hutchinson, B.Sc. (MANCHESTER), Ph.D. (SHEFFIELD); *Forest decline, terrestrial impacts*; R. Jones, B.Sc. (WALES), M.Sc. (KANSAS), Ph.D. (WALES); *Plant ecology, biogeochemistry, disturbed habitats*; P.M. Lafleur, B.Sc. (BRANDON, MAN.), M.Sc. (TRENT), Ph.D. (MCMASTER); *Forest-atmosphere energy interactions, impacts of climatic change*; D.C. Lasenby, B.Sc. (TRENT), Ph.D. (TORONTO); *Limnology; biological, physical and chemical aspects of lakes*; C.L. McKenna Neuman, B.Sc., Ph.D. (QUEEN'S), M.Sc. (GUELPH); *Process geomorphology, mechanics of sediment transport, periglacial/coastal aeolian geomorphology*; C.D. Metcalfe, B.Sc. (MANITOBA), M.Sc. (NEW BRUNSWICK), Ph.D. (MCMASTER); *Aquatic organic contaminants*; E. Nol, B.Sc. (MICHIGAN), M.Sc. (GUELPH), Ph.D. (TORONTO); *Behavioural and evolutionary ecology of*

birds; R. Ponce-Hernandez, B.ENG. (UNIVERSIDAD, CHAPINGO), M.SC. (COLEGIO DE POSTGRADUADOS), D.PHIL. (OXFORD): *Geographical information systems, Geostatistics and remote sensing techniques applied to suitability and impact assessments in agricultural and forest ecosystems*; P.M. Powles, B.A. (MCGILL), M.SC. (WESTERN ONTARIO), PH.D. (MCGILL): *Ichthyology, larval and reproductive ecology of fish*; J. Sutcliffe, B.SC. (WATERLOO), M.SC., PH.D. (TORONTO): *Ecology and sensory physiology of biting flies*; C.H. Taylor, M.A. (CANTERBURY), PH.D. (MCGILL): *Hydrology, fluvial geomorphology*; T.H. Whillans, B.A. (GUELPH), M.SC., PH.D. (TORONTO): *Fisheries, wetland ecology, renewable resource management.*

#### Conjoint Professors

[Conjoint Professors have full academic appointments in the Watershed Ecosystems Program and are able to act as principal supervisor of graduate students.]

M. Bardecki, PH.D. (YORK): *Wetland management and environmental impact assessment* (Ryerson Polytechnical Institute); J. Casselman, PH.D. (TORONTO): *Physiology and ecology of coolwater fish* (Ontario Ministry of Natural Resources); R.J. Cornett, B.SC. (TORONTO), PH.D. (MCGILL): *Interactions of radioisotopes with ground water and lakes* (Atomic Energy of Canada); P.J. Dillon, PH.D. (TORONTO): *Nutrient cycling, trace metals, acid precipitation studies* (Ontario Ministry of the Environment); R.J. Hall, PH.D. (MINNESOTA): *Invertebrate ecology* (Ontario Ministry of the Environment); B.E. Hickie, B.SC.AGR. (GUELPH), M.SC., PH.D. (WATERLOO): *Environmental toxicology, pharmacokinetic modelling* (Trent); M.L. Jones, B.SC., PH.D. (BRITISH COLUMBIA): *Research, fisheries, ecology and modelling* (Ontario Ministry of Natural Resources); D.R.S. Lean, PH.D. (TORONTO): *Phosphorus cycling, nutrient dynamics* (Environment Canada); R. Norstrom, B.SC., PH.D. (ALBERTA): *Analytical chemistry, pharmacokinetics* (Canadian Wildlife Service); T.D. Prowse, M.SC. (TRENT), PH.D. (CANTERBURY): *Northern rivers, particularly ice jams* (Environment Canada); T. Schehammer, B.SC., B.ED., PH.D. (WESTERN ONTARIO): *Toxicology of non-essential metals in birds and mammals* (Canadian Wildlife Service); P. Welbourn, PH.D. (BRISTOL): *Cycling of metals in lakes, Algal toxicity, Lake acidification* (Trent).

#### Regulations

The general regulations and requirements of Trent University for graduate degrees apply to the Watershed Ecosystems program. Candidates for both the M.Sc. and the Ph.D. degree will be required to complete the equivalent of two full courses and to submit a thesis on an approved topic within a period of two years (four for part-time students) for the M.Sc. degree and four years (eight for part-time studies) for the Ph.D. degree.

Candidates must attain at least a second class standing in all course work to remain registered in their program, and must pass an oral examination in defence of their thesis research. *WE500a* is compulsory for all first-year M.Sc. students. Students without training in advanced statistics are strongly recommended to take *WE501a* as well.

Ph.D. candidates must undertake an oral Qualifying Examination, normally within the first year of study. The examination will establish, to the satisfaction of the Program, that the student has an effective grasp of her/his research area.

#### Courses Available to Graduate Students (Note: not all courses are offered every year.)

*WE500a - Approaches to Science*  
This course, which is mandatory for all first year M.Sc. students, will challenge participants to examine their philosophy of science with particular reference to their own research. Current paradigms in watershed research will be examined and students will be encouraged to develop their understanding of the systems within which their research is conducted. Evaluation is on the basis of the presentation of a seminar on the student's thesis proposal and a written development of ideas presented during the seminar.  
*R.J. Cornett and staff*

#### *WE501a - Research Design and Data Analysis*

The course will emphasize advanced statistical techniques of use in field and laboratory studies in watershed research, including applications of linear and non-linear models, analysis of variance and multivariate statistics. An effort will be made to assist graduate students in planning the statistical design of their own research projects. The course will rely heavily on workshops and tutorials. This course is highly recommended for students who have not taken an advanced statistics course (e.g. analysis of variance,

multivariate statistics) as an undergraduate. An introductory statistics course is required as a prerequisite.  
Staff

*WE504b - Ecosystem Response to Changes in the Hydrosphere*

The course will examine the responses of biological communities to changes in the physical, chemical and biological parameters of aquatic ecosystems. Discussions may include forest clear-cutting, waterlevel fluctuations, habitat rehabilitation, exotic species introductions, eutrophication, and acid rain. The course will be seminar-based, with an emphasis on examining case histories related to individual student's research. Not open to students who have taken *ES481ab*.

*WE505a - Measurement Techniques for Hydrochemical Fluxes*

The course will examine techniques for monitoring hydrochemical fluxes within the hydrological cycle. The curriculum will cover problems relating to the measurement of variables such as discharge, soil moisture, organic and inorganic constituents in the saturated and unsaturated zones, atmospheric vapour fluxes, precipitation and snowcover. The focus of the lectures and labs will be on measurement, sampling techniques, and instrumentation. Course material will complement statistical concepts covered in *WE501a*. Not open to students who have taken *GO404ab*.

*J. Buttle, C. Taylor*

*WE506a - The Geochemistry of Natural Waters*

The course will examine the chemical and physical properties of water, snow and ice. An emphasis will be placed on those parameters which influence the distribution of biota, nutrients and contaminants in the aquatic environment. Topics for discussion will include the hydrologic cycle, the carbonate system and pH control, weathering and water chemistry, redox equilibria, hydrologic transport, and the properties of snow and ice. Not open to students who have taken *BI/ES/G0406a*.

*D. Evans*

*WE507b - The Fate of Contaminants in the Aquatic Environment*

The course will emphasize the mathematical modelling of the fate and distribution of aquatic contaminants, including models for toxic metals, organic xenobiotics and groundwater

contaminants. The course will examine the basic algorithms and assumptions of contaminants models, and will give the students hands-on experience in applying existing models (e.g. MINTEQA, QWASI). An emphasis will be placed on using models to determine the dominant pathways influencing the fate of inorganic and organic contaminants in the aquatic environment. Not open to students who have taken *BI/ES/G0407b*.

*D. Evans*

*WE509b - Trends in Behavioural Ecology*

This course examines new developments in behavioural ecology, based upon the current journal literature. Topic range from sexual selection, game theory, and optimality to assessing alternate ways of interpreting behaviour. Students will take an active role in the presentation of course material. Specific choice of topics will be determined by course participants. Students should have taken one course in Animal Behaviour. A familiarity with population genetics, ecology and basic evolutionary theory will be assumed.

*E. Nol, M. Berrill*

*WE510b - Instrumental Analysis*

Course material includes instruction on the theory and practical applications of instrumentation commonly used for analysis in the aquatic sciences. Lecture material includes sections on electroanalytical methods, atomic and molecular spectroscopy and analytical chromatography. Students will have the opportunity to be trained on specific analytical instruments by working in research laboratories under the supervision of WEGP faculty.

*J.M. Parnis, C.D. Metcalfe*

*WE511b - Geographical Information Systems: Techniques and Applications*

This course will provide familiarization with the theoretical and applied aspects of geographical information systems relevant to studies in Watershed Ecosystems. Lectures will focus on various approaches to analysis of spatial information. The applied portion of the course will involve students in the formulation of a GIS applications project related to the students' research.

*R. Ponce*

*WE590 (or WE590ab) - Reading Course*

This course option is available for graduate students who wish to receive instruction in a more discipline-specific

course. The exact format of the course is designed by the student in consultation with the supervisory committee. A written justification for the need for this course must be made to the Program Director and must be arranged prior to registration for the course. The reading course can be a literature review or a small research project. Under exceptional circumstances, and subject to Program approval, a student can also register under the *WE590* course number to take a course from another academic institution for credit. In the case of an undergraduate course taken for credit, a graduate student would normally have to complete an additional graduate-level assignment.

### Financial Support

Full financial support is provided for a minimum of six terms for M.Sc. students and nine terms for Ph.D. students, through teaching assistantships, research assistantships or scholarships. Candidates are encouraged most strongly to apply for scholarships on their own behalf. Information on available scholarships is available from the Office of Research and Graduate Studies.

### Further Information

More detailed information about the Program is contained in the Program Handbook. Inquiries should be addressed to the Director of the Program.

## Financial Assistance

Financial assistance for individual full-time graduate students may be available from the following sources:

1. Scholarships, fellowships and other merit awards from governmental, industrial and other granting bodies in Canada.
2. Graduate assistantships for a maximum of four terms - M.A./M.Sc. (maximum six terms - Ph.D.), normally spanning two (three - Ph.D.) consecutive undergraduate academic years, in teaching and demonstrating.
3. Research assistantships with staff members who hold research grants.
4. Non-competitive awards and loans from the Ontario Student Awards Program.

All student support received through awards, research or graduate assistantships is taxable according to the federal and provincial tax regulations. Tax

will be deducted by Trent's accounting department from any payments made to students for assistantships.

Teaching assistantships and research assistantships administered by Trent University will be paid through the university payroll office, on a monthly basis. Scholarships awarded for the calendar year are ordinarily paid in three equal instalments in September, January and May and may be picked up in the Office of Research and Graduate Studies.

Information on the more important scholarships and fellowships follows:

### Ontario Graduate Scholarships

The Government of Ontario offers up to 1300 Ontario Graduate Scholarships per year which are tenable at the Ontario university of the student's choice. The awards are tenable in all disciplines and the scholars must have a high level of academic achievement. The awards are intended primarily for Canadian citizens as well as those who hold permanent resident status at the time of application; however, up to 60 awards may be made to students who, by the application deadline, have been admitted to Canada as visitors with student authorization. Awards will be for two or three consecutive terms; one-term awards will not be made. Application deadline is normally November first. All eligible candidates who are interested in studying at Trent are urged to apply for one of these awards. For further information write to: Student Support Branch, Ontario Ministry of Education and Training, P.O. Box 4500, 189 Red River Road, 4th Floor, Thunder Bay, Ontario P7B 6G9.

### Natural Science and Engineering Research Council Awards

Postgraduate Scholarships from the Natural Science and Engineering Research Council (NSERC) are tenable in departments offering graduate studies in science. These awards are offered to assist students in undertaking graduate study and research leading to advanced degrees, and a limited number of postdoctoral fellowships for those wishing to add to their experience by specialized training. The scholarships are open to Canadian citizens or permanent residents and are awarded on the basis of high scholastic achievement and evidence of capacity to do research. For further information write to: Postgraduate Scholarships Officer, Natural Science and Engineering Research



Council of Canada, Constitution Square,  
Tower II, 350 Albert Street, Ottawa,  
Ontario K1A 1H5.

### **Commonwealth Scholarship and Fellowship Plan**

The Commonwealth Plan provides opportunities for Commonwealth students to pursue advanced studies in other Commonwealth countries. The fellowships are awarded to graduates of recognized universities for a period of two academic years and the intervening summer, and are intended to cover the holder's travel, living, and study expenses during the period of tenure. Application forms and full information concerning details of the award may be obtained from the Canadian Scholarship and Fellowship Plan, c/o Canadian Bureau for International Education, 85 Albert Street, Suite 1400, Ottawa, Ontario K1P 5N1, or through the Canadian High Commissioner in those countries. Persons intending to apply are advised to enquire not later than September, approximately one year prior to the date of tenure.

#### **Note:**

The Office of Research and Graduate Studies prepares a booklet annually for use by Trent undergraduates planning to apply to graduate schools and for scholarships and by graduate students planning further study. This includes a list of scholarships available and application deadlines. In the case of major scholarship competitions, students currently registered at Trent must meet an earlier deadline set by the University.

### **Graduate Assistantships**

The Graduate Studies Committee, acting on the recommendations of the programs awards a number of assistantships to full-time graduate students each year. In return for the stipend involved, the students are required to work for up to ten hours per week in the department, generally assisting with some aspect of the undergraduate teaching program.

A full-time graduate student may be eligible for support for a maximum of four terms (six terms - Ph.D.), normally spanning two (three - Ph.D.) consecutive undergraduate academic years.

## **Graduate Awards**

### **Trent University Graduate Entrance Awards**

Approximately fifteen (15) awards will be made annually to eligible students entering the first year of a full-time graduate degree program at Trent University. The awards are valued at \$300 each and are intended for students with an average of A- (80%) or better in their last two years of study.

### **Ontario Graduate Scholarship (OGS) Program "Institutional Awards"**

The Province of Ontario provides up to ten (10) OGS institutional awards tenable only at Trent University. Only first and second year students may hold awards. In order to be eligible, a student must meet the eligibility criteria and fulfil all scholarship conditions applicable to candidates in the open OGS completion. Nominees can be those who were on reversion or unsuccessful in the open competition, or have not yet applied. Students who were unranked for an OGS are not eligible.

The recommended candidates from Trent are decided when results of the open competition are known.

### **The Governor-General's Academic Gold Medal**

The Governor-General's Gold Medal will be awarded to the graduate student who achieves the highest academic standing in his/her Master's degree program. The medal will be awarded on the recommendation of the Committee on Graduate Studies which solicits nominations from the graduate program directors, and will be presented each year at Spring Convocation to a student among those who are graduating.

### **The R.B. Johnston Fund for Archaeology**

The gift of an anonymous donor, this fund recognizes the contribution of the late Prof. Richard B. Johnston to Ontario archaeology. The fund supports thesis research by graduate students in the Anthropology program. Projects in the archaeology of northeastern North America are preferred, and one or more grants are awarded annually.

### **The David and Joyce Woods Graduate Scholarship**

This scholarship, to honour David M. Woods, Chairman of the Board of

Governors of Trent University from 1975 to 1980, and his wife, Joyce Woods has been established by their children and friends and is to be awarded to a student in the Watershed Ecosystems Graduate Program. This is the first graduate scholarship to be established at the University.

## International Graduate Students

In order to cover fees, books and living expenses, an international student in a graduate school in Ontario will need a minimum of \$22,000 per year. If this amount is not covered by independent means or financial support from his/her own country, and if he/she is therefore in need of fellowship support, he/she should be aware of the following facts. Because of government restriction on the money available, students from other countries entering Canada on student authorizations and proceeding to a graduate school in the province of Ontario are restricted in most cases to teaching assistantships involving no more than ten paid hours per week. Eligibility for most scholarships and teaching assistantships from university and Canadian sources is restricted to Canadian citizens or permanent residents. However, as noted in the previous section, a small number of Ontario Graduate Scholarships are available to non-Canadian students.

Therefore if you are not a Canadian citizen or permanent resident, you will not be eligible for most of the awards. On the other hand, to obtain permanent resident status, a student who is not resident in Canada must have long range plans which include an intention to settle permanently in Canada. If the Canadian immigration authorities refuse permanent resident status, it is then extremely difficult to obtain a student authorization as an alternative means of permission to study in Canada.

Entry into Canada without either status will result in a deportation order, and if the deportation order is not successfully appealed, any further application for landed immigrant status will almost certainly be denied. Application for such status therefore should not be made simply in the hope of obtaining more fellowship support.

### Note:

Students who have been admitted to Canada on student authorizations must obtain a work permit from the Department of Immigration before taking on any type of work for which they receive payment.

## Student Services

### Graduate Students' Association

All registered graduate students, full- or part-time and including those enrolled under the Trent-Queen's Agreement become, by virtue of the fee paid, a member of the Graduate Students' Association (GSA). This association exists separate from the Trent Student Union (TSU). It has four elected officers (President, Vice-President, Treasurer and Secretary) who organize social and informal academic events. Elections take place yearly. Graduate students are also represented on the University Senate, and the Research, Graduate Studies, Animal Care, Computer Services, Nature Areas, Research Award, Status of Women, Teaching Awards and Teaching Effectiveness committees. Those interested in serving either on the GSA executive or on one of the committees should contact the current GSA President.

The GSA publishes a newsletter throughout the year passing on information of direct concern to graduate students both from within the university and from other graduate associations or from the National Union of Students (NUS) newsletters. As well as organizing social events such as wine and cheese parties, Christmas parties, and end-of-the-year banquets, the GSA presents informal slide and talk shows presenting current research by graduate students or faculty at Trent.

Conference travel allowances are made available through the GSA to qualifying graduate students on a first come/first served basis.

The aim of these programs is to provide opportunities for graduate students to communicate with each other, and with the entire University community about issues and problems of particular concern to graduate students.

The current executive welcomes the interest and assistance of all graduate students.

**Other Services and Facilities**

Full descriptions on Colleges, Athletics Health Service, Computing Facilities and the Thomas J. Bata Library are to be found elsewhere in this Calendar.

**For further information please write to:**

The Office of Research and Graduate Studies  
Trent University  
Peterborough, Ontario, Canada  
K9J 7B8

**or telephone:**

Area Code (705) 748-1245

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### Principal of Lady Eaton College

To be named.

### Head of Otonabee College

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### Associate Dean and Principal of Julian Blackburn College

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Nancy Smith

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#### University Secretary

Nancy Smith

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To be named.

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Karen Taylor, M.A.

#### Co-ordinator Writing Program

Lucille Strath, M.A.

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#### Assistant Registrar (Admissions)

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*Catharine Parr Traill College*

Heather Avery, M.A.

*Champlain College*

Stephen Brown, M.A., PH.D., F.S.A.

*Lady Eaton College*

To be named.

*Otonabee College*

To be named.

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 Nader G.A. *Geography*  
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 Neufeld, M. *Political Studies*  
 Neumann, R.M. *Philosophy*  
 Newhouse, D. *Native Studies/Admin.St.*  
 Nol, E. *Biology*  
 Noriega, T.A. *M.L.&L. (Spanish)*  
 Nutch, F. *Sociology*  
 O'Connor, A. *Cultural Studies*  
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Geography*  
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 Sheinin, D. *History*  
 Slavin, A.J. *Physics*  
 Smith, C.T. *Psychology*  
 Smith, D.L. *M.L.&L. (Spanish)/Cult.St.*  
 So, J. K.-F. *Anthropology*

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Solway, J. *Comp.Dev./Anthropology*  
Sproule, C. *Psychology*  
Standen, S.D. *History*  
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Stavro-Pearce, E. *Political Studies*  
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Thibault, G. *Sociology*  
Thomas, Y. *M.L.&L. (French)*  
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Todd, E.M. *Anthropology*  
Topic, J.R. *Anthropology*  
Topic, T.L. *Anthropology*  
Torgerson, D. *Admin.St./Pol.St.*  
Treadwell J.M. *English Literature*  
Tromly, F.B. *English Literature*

Vastokas, J.M. *Anthropology*  
Vastokas, R.K. *Anthropology*  
Verduyn, C. *Can.St./Women's Studies*

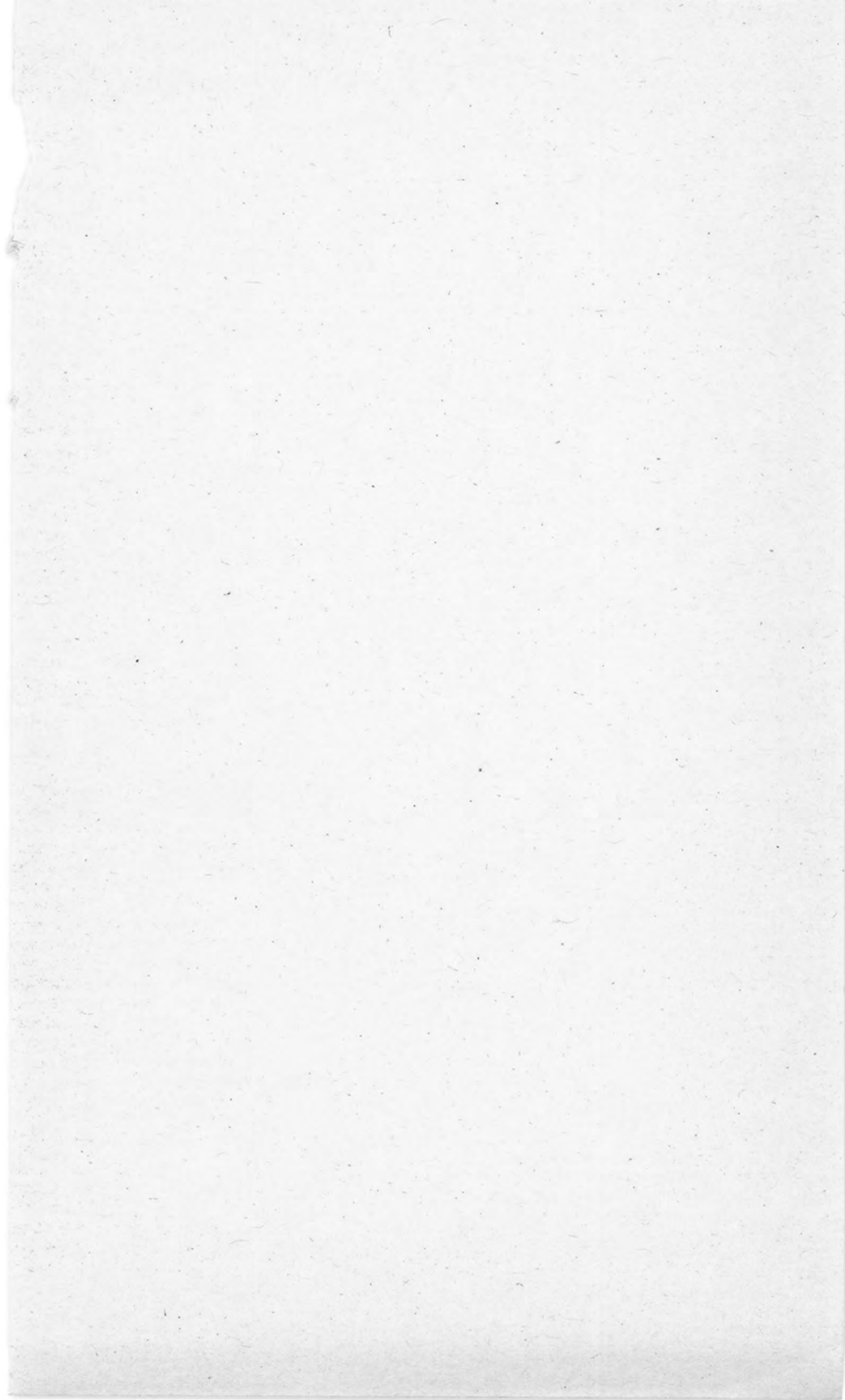
Wadland, J.H. *Canadian Studies*  
Walden, K. *History*  
Watson, P. *Psychology*  
Wearing, J. *Political Studies*  
Wernick, A.L. *Cultural Studies*  
Whillans, T. *Env.&Res. St.*  
Williams, S. *Native Studies*  
Winocur, G. *Psychology*  
Wiseman, J. *Librarian/Can.St.*  
Wong, P.T.-P. *Psychology*  
Wylie, P. *Economics*

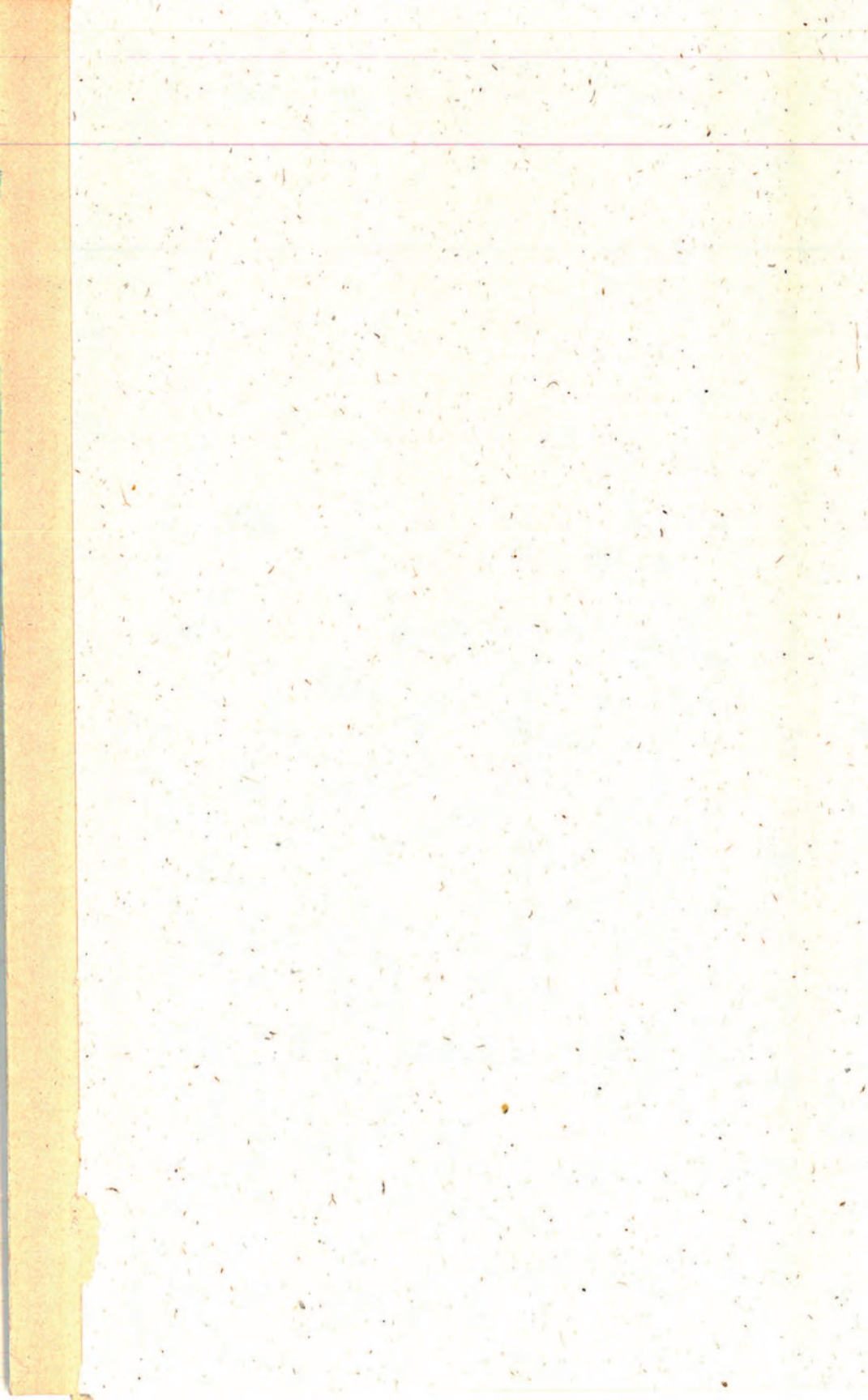
Zeleza, P. *History*  
Zhou, B. *Mathematics*  
Znamirowski, B. *Librarian*













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