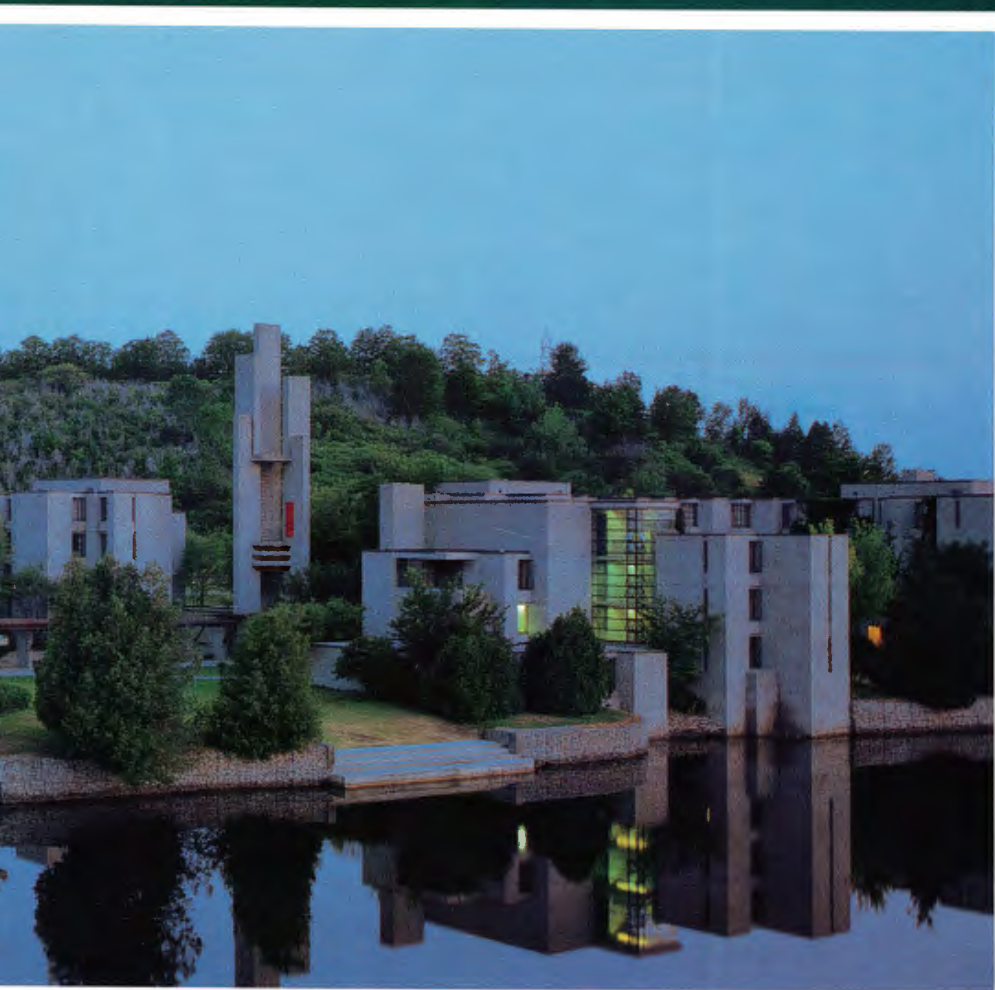






The
Twenty-seventh
Academic Year

1990-91

Trent University Calendar



Nunc cognosco ex parte

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Table of Contents

University Diary	4	Academic Penalties	44
Map	8	Probation	44
General Information		Rustication	44
History	9	Debarment	44
Peter Robinson College	10	Convocation and Transcripts	45
Catharine Parr Traill College	11	Honours Program	45
Champlain College	11	Honours Standing	45
Lady Eaton College	12	Admission	46
Otonabee College	13	Academic Standings Required	46
Julian Blackburn College	13	Honours Science	47
Library	15	Administrative Studies	47
Alumni Association	16	Ordinary Program	48
Athletic Program	16	Special Emphasis Program	49
University Services	16	Special Emphasis — International Studies	50
Undergraduate Activities	16	International Program	50
Health Service	16	Part-time Studies	51
Disabled Students	17	Fall/Winter On-Campus Programs	51
Counselling and Career Centre	17	Fall/Winter Off-Campus Programs	51
Academic Skills Centre	18	Summer On-Campus Programs	51
Off-Campus Housing Service	18	Programs of Study	
Bus Service	18	Explanation of Course	
Day Care	18	Identification	52
Computer Services	18	Animal Care Course	52
Financial Information		Administrative and Policy Studies	52
Fees	19	Anthropology	56
Fee Schedule	21	Biochemistry	61
Student Aid	22	Biology	61
Bursaries	22	Canadian Studies	65
Scholarships	26	Canadian Studies Diploma Program	69
Prizes	29	Chemical Physics	69
Academic Regulations		Chemistry	70
Application and Admission	34	Classical Studies	73
Admission Requirements	34	Latin Language and Literature	74
Normal Requirements	34	Greek Language and Literature	74
Exceptions to Normal Requirements	35	New Testament Greek	75
Equivalents to Ontario Grade 13	35	Ancient History	75
Special Requirements	36	Classical Literature	76
Part-time Credit Studies	36	Classical Civilization	76
Refusal of Admission	36	Comparative Development Studies	76
Application Deadline	36	Computer Studies	79
Admission with Advanced Standing	36	Cultural Studies	82
College Application Information	37	Economics	86
Registration	37	Education	90
Academic Programs and Standings		English Literature	91
Required	38	Environmental and Resource Studies	97
Course Load	38	Geography	101
Overload Programs	38	History	105
Course Sequence	39	Mathematics	109
Course Changes	39	Modern Languages and Literatures	112
Deadlines for Course Changes	39	French	112
Withdrawal	39	German	114
Letters of Permission	40	Spanish	116
Study at Foreign Universities	40	Native Management and Economic Development	119
Assessment of Performance	40	Native Studies	119
Course Credit	40	Native Studies Diploma Program	123
Mid-Year Review	41	Philosophy	123
Grades	41	Physics	126
Dean's Honours List	41	Political Studies	129
Supplemental Examinations	41	Psychology	132
Aegrotat Standing and		Science	137
Incomplete Standing	41	Sociology	137
Appeals	42	Statistics	141
Policy on Plagiarism	42	Vanier Chair	141
		Women's Studies	142

Graduate Studies

Diary	144
General Information	144
Application	145
Admission	145
Transfer of Credit	146
Qualifying Year	146
Language Proficiency	146
Graduate Record Exams	146
Master's Degree Regulations	146
Registration	146
Failure to Register	147
Full-time, Part-time and Inactive Status	147
Residence Requirements	148
Time Limit	148
Residence Accommodation	148
Supervision	148
Research and Thesis Requirement	149
Courses	149
Course Changes	149
Audit Courses	149
Grading System	149
Aegrotat Standing	149
Courses at Other Universities	150
Language Requirement	150
Grade Reports	150
Unsatisfactory Work	150
Appeals	150
Thesis Oral Examinations	150
Thesis Preparation	151
Fees	152
Fee Schedule	152
Programs of Study	153
Anthropology	153
Biology	154
Canadian Heritage and Development Studies	155
Chemistry	156
Classics	156
Freshwater Science	156
Geography	157
Methodologies for the Study of Western History and Culture	157
Physics	159
Trent-Queen's	159
Watershed Ecosystems	159
Financial Assistance	161
International Graduate Students	162
Student Services	163

Personnel

Board of Governors	164
Officers and Administrative Personnel	164
Academic Staff	166

Note

The contents of this calendar are not necessarily final and complete. Changes in some areas, including:

1. New faculty appointments or departure of faculty members;
2. Courses, including withdrawal of courses offered;
3. Policies and Procedures related to Applications, Admissions, and Registration for new and returning students;
4. Regulations;
5. Fee structure; may, and no doubt will, occur.

Accordingly, the University reserves the right to make and implement changes subsequent to the publication of this Calendar as in its sole discretion it may determine.

The University expressly reserves the right to increase fees or make additional changes in circumstances which in its sole discretion it deems appropriate.

Note

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

Summer Session 1990*(For Summer Session Deadline Dates See Chart Below)*

May	21	Monday	Victoria Day Holiday
	30	Wednesday	Final date for payment of deposit against residence fees by returning students
June	1	Friday	Spring Convocation
	15	Friday	Final date to request Summer Session letters of permission Final date for receipt of applications for full-time admission to Trent University Final date for continuing JBC students to apply for full-time studies
July	1	Sunday	Canada Day
	2	Monday	Canada Day Holiday
	13	Friday	Pre-registration: Final date for submission of confirmation of intent to register form and tuition deposit required by all students wishing to continue studies on a full-time basis in the fall, 1990 Final date for appeals of full and b half courses Final date for receipt of appeals against academic penalties Final date for application for transfer between residential colleges
August	6	Monday	Civic Holiday
	15	Wednesday	Final date to request Winter Session letters of permission
	24	Friday	First instalment of fees is due

Term 1 — Winter Session 1990-91

September	3	Monday	Labour Day Holiday Arrival of new students
	4	Tuesday	Introductory Seminar Week begins
	7	Friday	Registration for new full-time students Final date for receipt of applications and supporting documentation for part-time students, without late fee
	8	Saturday	Final date for new full-time student registration, without late fee
	9	Sunday	Arrival of returning students
	10	Monday	Classes begin Official course registration for returning and re-admitted full-time students begins
	14	Friday	Final date for returning and readmitted full-time students to register, without late fee
	18	Tuesday	Meeting of the Senate
	24	Monday	Final date for rebate on college fees for transfers from full- to part-time status
	28	Friday	Faculty Board Meeting Final date for Summer Session appeals Final date for official course registration for Term 1 full-time students Final date for receipt of applications and supporting documentation for part-time students, with late fee Final date to change or add full and a half courses

October	8	Monday	Thanksgiving Day Holiday
	12	Friday	Faculty Board meeting
	16	Tuesday	Meeting of the Senate
	20	Saturday	Classes end Fall Convocation
	22	Monday	Residential Reading and Laboratory Week begins
	29	Monday	Classes resume
November	9	Friday	Final date for withdrawal from a half and Term 1 full courses Faculty Board meeting
	13	Tuesday	Meeting of the Senate
	30	Friday	Final date to request letters of permission for courses beginning January, 1991
December	7	Friday	Faculty Board meeting
	8	Saturday	Last day of classes
	10	Monday	Final examinations for a half and Term 1 full courses begin Study week begins
	11	Tuesday	Meeting of the Senate
	15	Saturday	Final examinations for a half and Term 1 full courses end, 10:30 p.m. Study week ends
	16	Sunday	Christmas Vacation and Reading Period begins
	25	Tuesday	Christmas Day

Term 2 — Winter Session 1990-91

January	1	Tuesday	New Year's Day
	4	Friday	Final date for receipt of b half and Term 2 full course applications and supporting documentation for part-time students, without late fee
	7	Monday	Classes resume
	11	Friday	Second instalment of fees is due
	18	Friday	Faculty Board meeting
	22	Tuesday	Meeting of the Senate
	25	Friday	Final date to change or add b half and Term 2 full courses Final date for receipt of b half and Term 2 full course applications and supporting documentation for part-time students, with late fee
			Final date for payment of outstanding bookstore and other accounts before the procedure of deregistration takes effect
February	8	Friday	Faculty Board meeting
	12	Tuesday	Meeting of the Senate
			Final date for withdrawal from full Winter Session courses
	16	Saturday	Classes end
	18	Monday	Residential Reading and Laboratory Week begins
	25	Monday	Classes resume
	28	Thursday	Students who have not fully paid their University account for fees, bookstore and other charges will be deregistered without academic penalty
March	8	Friday	Final date for withdrawal from b half and Term 2 full courses Faculty Board meeting
	12	Tuesday	Meeting of the Senate
	15	Friday	Final date for appeals of a half and Term 2 full courses
	29	Friday	Good Friday Holiday

April	5	Friday	Faculty Board meeting Pre-registration: Final date for submission of course-preference form required by all students wishing to continue studies on a full-time basis in the fall, 1991
	6	Saturday	Classes end
	9	Tuesday	Meeting of the Senate
	11	Thursday	Examinations begin for <i>b</i> half and full courses
	27	Saturday	Examinations end for <i>b</i> half and full courses, 10:30 p.m.

Summer Session 1991

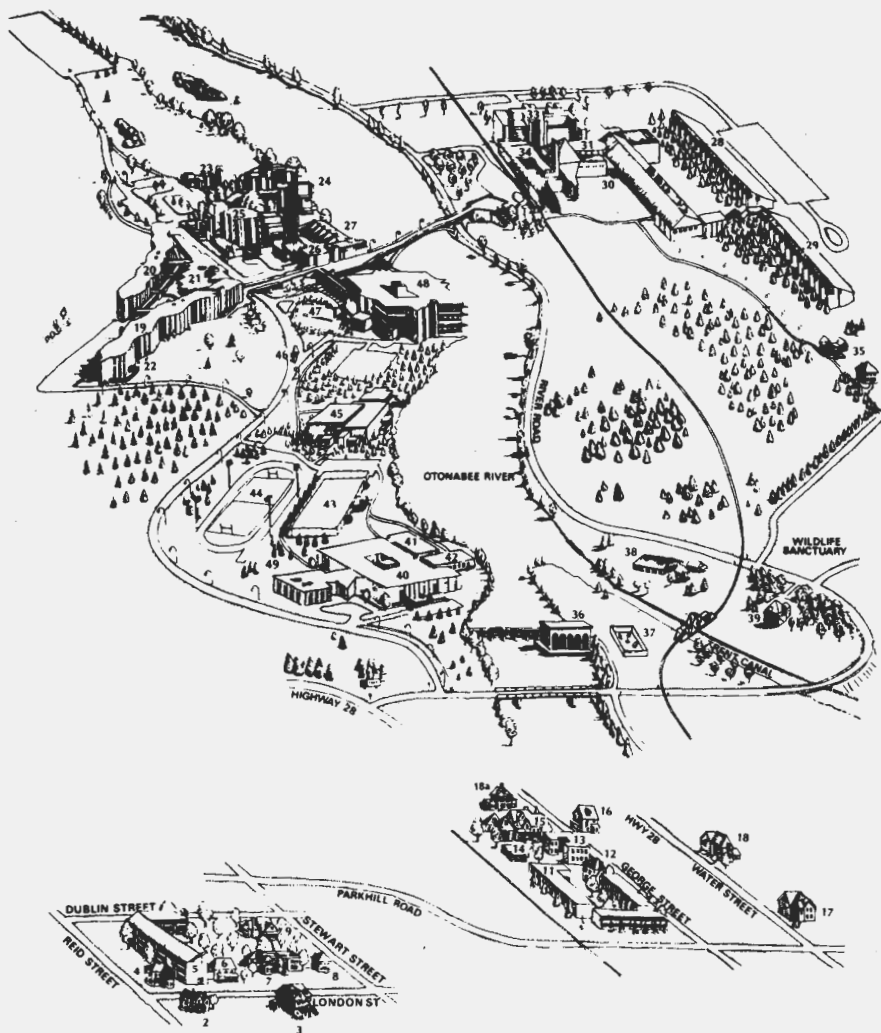
(For Summer Session Deadline Dates See Chart)

May	20	Monday	Victoria Day Holiday
	29	Wednesday	Final date for payment of deposit against residence fees by returning students
	31	Friday	Spring Convocation
June	14	Friday	Final date to request Summer Session letters of permission Final date for receipt of applications for full-time admission to Trent University Final date for continuing JBC students to apply for full-time studies
			Canada Day Holiday
July	1	Monday	Pre-registration: Final date for submission of confirmation of intent to register form and tuition deposit required by all students wishing to continue studies on a full-time basis in the fall, 1991
	12	Friday	Final date for appeals of full and <i>b</i> half courses Final date for receipt of appeals against academic penalties Final date for application for transfer between residential colleges
August	5	Monday	Civic Holiday



Summer Session Dates 1990	12 week term	8 week term	6 week term
Final date for receipt of applications and supporting documentation, without late fee	April 30	April 25	June 25
Classes begin	May 7	May 2	July 3
Final date for receipt of applications and supporting documentation, with late fee	May 22	May 15	July 9
Final date for withdrawal	June 18	May 31	July 23
Classes end	July 26	June 27	August 10
Examinations begin	July 30	June 29	August 13

Summer Session Dates 1991	12 week term	8 week term	6 week term
Final date for receipt of applications and supporting documentation, without late fee	April 29	April 24	June 24
Classes begin	May 6	May 1	July 2
Final date for receipt of applications and supporting documentation, with late fee	May 21	May 14	July 8
Final date for withdrawal	June 17	May 30	July 22
Classes end	July 29	June 26	August 13
Examinations begin	July 30	June 28	August 14



Legend

Catharine Parr Traill College

2. Langton House
3. Bradburn House
4. Principal's Lodge
5. Wallis Hall
6. Crawford House
7. Scott House
8. Stewart House
9. Kerr House

Peter Robinson College

11. Townhouses
12. 733 George Street
13. Reade House
14. Jolly Hangman Pub
15. Sadleir House
16. East Lodge
17. Stratton House
18. Abbott House
- 18a. North House

Lady Eaton College

19. South Wing
20. North Wing
21. Commons Block
22. Principal's Lodge

Champlain College

23. Master's Lodge
24. North Quad
25. West Quad
26. Champlain Lecture Hall
27. The Great Hall

Otonabee College

28. Residence Wing
29. Residence Wing
30. Academic Wing
31. Wenjack Theatre
33. Science Complex
34. Science Complex Lecture Theatre
35. Archaeology Centre
36. Powerhouse

37. Weather Station
38. Peterborough Rowing Club
39. Commoner Pub
40. Biology-Geography Building
41. Riverside Lab
42. Environmental Centre
43. Tennis Court
44. Playing Field
45. Recreational Facility
46. Information Kiosk
47. Visitor parking
48. Bata Library
 - Accounts
 - Development
 - Alumni
 - Senior Administration
 - Audio Visual
 - Language Labs
 - Trent Student Union
 - Campus Store
 - Student Services
49. Registrar's Office
- Julian Blackburn College
- Campus Tours

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, extra-curricular 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 twenty-seventh teaching year, the University has about 3,500 undergraduates in the full-time program, and about 2,770 in both the part-time winter and summer school programs. In addition, there are about 85 Master's degree candidates in the five fields in which graduate studies are offered.

The University is the result of several years of planning by public-spirited citizens of Peterborough and, after the appointment of T.H.B. Symons as president-designate in 1961, by an Academic Planning Committee and 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.

The Canadian General Electric Company donated the core of what is now the 1,400-acre Nassau Campus on a rolling, wooded property located on both sides of the Otonabee River at the northern edge of the city. With the guidance of master planning architect, 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 a bus system. In addition to the five co-educational 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 collegiate system enhances the opportunity for both resident and non-resident students to benefit from a liberal education by taking advantage of the corporate life of the colleges. Quite apart from its social amenities, the college system is designed to offer genuine and continuing opportunities to cross those boundaries between different subjects and fields of study which so often hinder discussion in a university. Intellectual isolation can be avoided by bringing together, within each college, students and faculty from all disciplines.

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

in most courses.

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 advising on 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 through 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 autumn and late February.

Peter Robinson College

Master

John Milloy, PH.D.

Senior Tutor (to be named); Senior Don William Ramp, M.A.; Assistant to the Master Elizabeth O'Connell; Librarian Gwyneth Hoyle; Honorary Director of Music Peter 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 co-educational 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 Peter-

borough'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 and 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. The dining hall in Sadleir House, originally the hayloft for the stables, has been adapted to accommodate theatre and music and has become the home of experimental theatre productions, classical recitals and the university jazz club. Trent Radio is at the nearest corner and the Jolly Hangman, the College's student-run pub, is a performance centre in its own right.

Peter Robinson has always emphasized the need for student involvement in wider social issues in the community and abroad. Besides providing a supportive environment for activities concerned with human rights, international issues and nuclear disarmament, the offices of the Ontario Public Interest Research Group, Trent Institute for the Study of Popular Culture and the Vanier Professor are also 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, a computer room, a dark room, a recreation area with squash court and sauna and a croquet lawn.

Catharine Parr Traill College

Principal

D.L. Dempster, M.A.

Senior Tutor C.M. Greene, A.M., Ph.D.;

Senior Dons S. Brown, Ph.D. and K. Chittick, Ph.D.

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. Its students are proud of the College's traditions, and are enthusiastic participants in the way of life its unique character and location make possible. 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 in central Peterborough. Regular and frequent bus service connects the College with the Nassau campus and the city bus station, while its central location gives easy access to the University Bookstore, the Peterborough Public Library, art galleries, movie theatres, live concerts, shops, local beaches, churches, parks, restaurants and pubs. For those who wish to be engaged in a variety of experiences in both the University and the local community, Traill College is an attractive home.

The College consists of a number of old houses of architectural and historic significance which have been remodelled for residential and teaching purposes. Wallis Hall, a modern structure, completes the facilities, which include teaching offices, seminar rooms, a lecture hall and the Academic Skills Centre. Kerr House accommodates computer terminals and the College Library, which has ample study and reading space. The College is the base for academic departments such as English and Canadian Studies, and 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 residential areas around the College.

The intellectual life of the College is supplemented by an active visitors program organized by students and faculty, which gives members of the College the opportunity to meet informally with

writers, artists, professional people, politicians, musicians and scholars. The 19th Century Society provides a convivial atmosphere for discussion of any topic, serious or lighthearted, relating to that period. Over the years, students and faculty members of the College have been actively involved not only in community cultural organizations, such as the Peterborough Symphony Orchestra, but also in world-wide charitable organizations, such as Amnesty International.

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, which have proved to be excellent settings for social activities, both formal and informal. 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.

Champlain College

Master

J.I. MacAdam, Ph.D.

Senior Tutor (to be named)

Senior Don Peter Dawson, M.Sc., Ph.D.;

Assistant to the Master Elizabeth McCarney, B.Sc.

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, some sections may be all-male or all-female. 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 and sauna, music practice room, darkroom, the Céilie 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 is built around Champlain's Society, which brings leading international scholars and public figures to the campus to speak and participate in informal discussions. 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 October and Bon Temps in February. In co-operation with the faculty College Council, the Cabinet also shares in decisions touching the administration of the College. Members of Champlain College have enjoyed a long tradition of active participation in university affairs: rowing, rugby, field hockey, theatre, the Trent Radio Service, student and university government, and *Arthur*, the campus newspaper.

Lady Eaton College

Principal

H.J. Stanford, M.A., Ph.D.

Senior Tutor Catherine F. Sproule, M.A.;

Senior Don Patricia Strode;

Assistant to the Principal Ashley Foley, 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 740 students and 70 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 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-bedrooms and 12 double study-bedrooms. 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 and for the Trent International Program. 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 lounges, the music practice room, the games room, the student-run coffee shop (The Maggie), and pub, 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 and 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 is largely composed of Inuit sculpture, 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 the College pub, *Crawpadies*; a yearbook; and an occasional student publication, *The Drumline*.

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 sym-

posia given by fellows of the College on topics of special interest. With the assistance of the Canada Council, the College has hosted annually a writer-in-residence program through which an eminent Canadian writer is available during one week for discussions, consultations and readings.

Otonabee College

Head of College

Gordon Johnston, M.A.

Senior Tutor Robert Annett, B.Sc., Ph.D.

Senior Dons (to be named)

College Assistant Leslie Kirke, B.A.

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 co-educational 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 doubling as a music practice room, and the public dining hall.

The academic wing of the College, directly connected to the Science Complex, houses the Student Health Service; laboratories for Anthropology and Psychology; a Sociology resource area; the Native Studies lounge; several seminar rooms; teaching offices representing most 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 Archaeological

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 inter-house debating for the George Bernard Shaw award; College dinners and dances, a College Winter Weekend, the popular weekly pub; the inter-house Olympics, and intramural coeducational competition in such sports as soccer, softball, volleyball and rowing. 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

G.A. Nader, Ph.D.

Academic Counsellor and Assistant to

the Director Brian Donnellan, M.A.;

Administrative Assistant Tui Menzies,

M.A.; *Administrative Secretary* Judy Johnson, B.A.

Trent University's program of part-time and continuing education was established soon after the University itself, with the aim of making the University's academic programs available to the host of students who, for a variety of reasons, do not choose to pursue their studies full-time. The home of this rich and still growing program and of Trent's more than 2,000 part-time students, is Julian Blackburn College, named in honour of the late Professor Julian Blackburn, one of the key advisors in the founding of the University and a scholar and teacher deeply committed to part-time studies.

The role of the College is to serve the needs of part-time students in every way it can, particularly by providing academic and other counselling for part-time students, and by ensuring that as wide a variety as possible of the Univer-

sity's regular credit courses is made available and convenient for part-time students. On campus this means the provision on a rotating basis of a wide range of late afternoon and evening courses in the Fall/Winter Session and of both daytime and evening courses in the annual Summer Session. Off campus it means the scheduling of many Fall/Winter evening courses and Summer day and evening courses each year at the University's major off-campus centre at Durham College in Oshawa, as well as occasional Fall/Winter evening courses at other off-campus centres, particularly Lindsay and Cobourg. An experimental February Spring Session of first-year courses is also offered, both in Peterborough and in Oshawa.

In addition to these credit courses leading to Ordinary or Honours degrees in Arts or Science, or to the degree of Bachelor of Administrative Studies, the College also provides non-credit business courses which lead to a number of diplomas or professional certificates. Moreover, many part-time students enrol in courses with no thought of proceeding to a degree, including a growing number who already have a degree and who simply cannot break 'the learning habit'.

The College office is located on the west bank of the river, in a new building housing the Registrar's Office and Julian Blackburn College.

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.

Summer Off-Campus Program

The great majority of Trent's off-campus summer courses are offered in Oshawa (see below) 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*.

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. Trent, as Ontario's smallest university, thus attempts to serve the largest population centre in the province without its own university. In doing so it offers many credit courses each year in the Fall/Winter Evening and Summer Evening and Day Sessions leading to Ordinary 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 Ordinary and Honours B.A. and B.Sc. degrees in a number of other disciplines, or to the Bachelor of Administrative Studies degree, 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*.

Further information or academic counselling for anyone considering part-time study is available from Julian Blackburn College at (705) 748-1229. J.B.C. provides a year-round counselling and information service for Oshawa area students at (416) 723-9747. During registration periods, the Oshawa Information Office opens to take applications as a further service to Durham Region students. Written enquiries should be addressed to the Julian Blackburn College, Trent University, Peterborough, Ontario K9J 7B8.

Library

University Librarian

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

Acquisitions and Serials Librarian, Anna McCalla, B.A., M.L.S.; *Archivist*, Bernadine Dodge, B.A.; *Cataloguing Librarian*, Marisa Scigliano, B.A., M.L.S. (on leave 1990-91); *Assistant Cataloguing Librarian & Microforms Librarian*, Kenneth Field, B.MUS.ED., M.L.S.; *Circulation, Reference, Inter-Library Loans and On-Line Librarian*, Janice Millard, B.A., M.L.S.; *Collections Librarian*, John A. Wiseman, M.PHIL., PH.D., F.L.A. (on leave 1990-91); *Government Documents, Maps Librarian*, Barbara Znamirowski, B.A., M.L.S.; *Systems Librarian*, Luc Declerck, B.A., M.L.S.

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 the audio-visual centre and a number of administrative and faculty offices.

The library contains a collection of more than 421,700 volumes, 226,240 microforms, 2,946 serials subscriptions, 97,100 maps and air photos, and 171,360 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. 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 Hunter Collection; and the Trevor Lloyd Collection. Transcripts of the Royal Commission on the Economic Union and Development Prospects for Canada (MacDonald Com-

mission) and the transcripts of the Mackenzie Valley Pipeline Inquiry are also valuable resources. Also 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 800 linear metres 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 Map Sections are a major resource for students in Politics, Canadian Studies, Administrative and Policy Studies, Geography, Anthropology, Biology, Native Studies and Environmental and Resource Studies.

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.

Alumni Association

The Trent University Alumni Association represents the 12,000 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 endeavors 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 that help keep alumni in contact with Trent and other alumni.

Alumni Council

Philip Playfair (President)
 Kevin Midghall (Past President)
 Neil Rodgers (Vice-President)
 John Currie (2nd Vice-President)
 T.H.B. Symons (Honorary President)
 John Leishman (Honorary Vice-President)
 David Scoble (Honorary Steward)
 Jacques Beland
 Molly Jackson
 Carol MacKinnon
 Tom Phillips
 Margo Rodgers
 Diane Kennedy Squires
 Lari Langford (Board representative)
 Michael Beswick (Board representative)
 Margie Lightbody (Peterborough Chapter)
 Mary Elizabeth Luka (Toronto Chapter)
 Robin Quantick (Kingston Chapter)
 Kevin Rodgers (Oshawa/Durham Chapter)
 Anita Rosenfeld (Ottawa Chapter)
 Tony Storey (Director of Alumni Affairs)
 Kathleen Easson (Alumni Affairs Asst.)

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,

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 Inter-collegiate Athletic Union.

Inter-university and intramural competition is organized in a wide range of activities which include badminton, basketball, cross-country running, fencing, hockey, judo, rowing, rugby, skiing (nordic and alpine), soccer, softball, squash, tennis, touch football, field-hockey, volleyball, and 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 have seen the establishment and lively growth of literary magazines, a radio service, community action programs, and of drama, art, music, debating and film societies, plus a student newspaper and a full range of other activities and events. Participation is welcomed in the numerous student organizations and 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.

University Student Health Service

The University Student Health Service is located in Otonabee College and provides medical, nursing and counselling services for full-time students and, by arrangement, for part-time students. Hours are 0900 to 1630 Monday to Friday. Emergency treatment is available 24 hours a day by calling 748-1481.

The University requires *all* students to carry both medical and hospital insurance. Any student without insurance is held personally responsible for his/her health care costs. (Students from outside Canada should be aware that medical and hospital costs may be higher in Canada than in their own countries.)

Students from Ontario must carry Ontario Health Insurance (OHIP), the government-sponsored plan that provides benefits for both medical and hospital care and for the services of certain health practitioners. Ontario students under 21 will be covered under their families' plans but those over 21 are required to have their own plans. All students under OHIP need to be aware of their plan numbers. No premiums are required of full-time Ontario residents.

Canadian students from outside Ontario (except for Quebec) must submit valid health insurance numbers to the Health Service. Students from Quebec and from countries outside Canada (except for those with OHIP coverage) who seek medical treatment will be charged a fee for service which is normally recoverable through their health and medical insurance.

Students from outside Canada *must* arrange their own coverage. Insurance under OHIP should be arranged for during the first week of classes. The cost per month for OHIP in 1989 was \$29.75. The Peterborough OHIP office is located at Park Lane Plaza, near Lansdowne and High Sts. in the south end of the city (opposite Lansdowne Place), telephone 743-2140.

Disabled Students

Sheila Collett, *Special Needs Coordinator*

Telephone: (705) 748-1281 (voice or TDD)

Within its resources, Trent 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 (in the Bata Library) 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 visually impaired or learning disabled, exam invigilation services for students with a variety of special needs, and liaison with faculty members and with support agencies in the community.

Special needs students who are 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 ap-

propriate, for example in the case of a learning disability, formal diagnosis and assessment of the condition will be of great help in knowing what preparations may be necessary. In all cases early identification of needs is extremely important. For example, if a visually impaired or learning disabled student requires taped texts, these must be ordered at least two months in advance of need, otherwise the student may face long delays in receiving these materials.

While most buildings at Trent have elevators or ramps to accommodate wheelchairs, mobility-impaired students may have trouble negotiating parts of the campus unless they can drive or be driven from building to building. Students with such impairment are strongly urged to visit the campus to determine its suitability to their needs or interests.

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. Students from other jurisdictions who have special needs should investigate the availability of assistance through such agencies in their home province or country.

Counselling and Career Centre

Counselling

Students will find the Counselling Centre helpful in the variety of situations they may encounter at university. These may range from career decisions, in which interest or intelligence tests could be helpful, to very personal concerns such as relationships with others, self-confidence, loneliness, or simply vague feelings that things aren't quite right. The goal of counselling is not to provide ready-made solutions, but rather to help individuals develop their own strengths and resources. Of course, all counselling is free, voluntary, and confidential. You may contact a counsellor either by dropping in to the Counselling and Career Centre on the 4th floor of the Library, or by calling 748-1384.

Careers Room

The Careers Room is primarily con-

cerned with providing information on a wide variety of specific careers and employers, as well as colleges of education, graduate, and professional schools. In addition, notices of available jobs and visiting recruiters are posted on bulletin boards outside the office on the 4th floor of the Library. Materials concerning resumé writing and job hunting skills are available.

Placement

Information about part-time, full-time and summer employment is available through the Careers Room of the University. Employment opportunities are posted on bulletin boards outside the Careers Room, as is information about companies which plan recruiting interviews on campus. Students in their graduating year should be aware that some employers begin on-campus interviews as early as October.

Academic Skills Centre

The Academic Skills Centre offers both individual and group assistance in writing, 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 non-compulsory 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 the Nassau campus office. At the Traill College office, 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 tak-

ing 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 disabled students. These students should make a special effort to visit the Centre early in the year or even before term begins. Inquiries about the Centre should be addressed to either Heather Avery, Coordinator of the Teaching Program, or Lucille Strath, Coordinator of the Writing Program, at Catharine Parr Traill College.

Off-Campus Housing Service

Students coming to Trent University who will not be living in residence and who require accommodation should call or visit the Off-Campus Housing Office, located in Traill College. It is open from Tuesday to Saturday inclusive, from May to September and in it are posted lists, updated daily, of lodgings available in and near the city. Students are advised, if they need this service, to visit the office at their earliest convenience.

Bus Service

A bus service operated by the City of Peterborough connects the Nassau Campus with the two town colleges and the bookstore. Please see also section on Fees.

Trent Co-operative Day Care Centre

The day care centre, located at 283 King Street, is a parent co-operative in which parents and staff share responsibility for running the centre. 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.

Computer Services

The University maintains a VAX 11/780 computer which is manufactured by Digital Equipment of Canada Limited. The central computer facility is utilized by undergraduates, faculty, and research users from the entire academic community.

Financial Information

Fees

All quoted fees represent those of 1989-90 and are subject to revision for 1990-91.

Payment of Undergraduate Fees

As a requirement of course registration, minimum payment (or proof of OSAP or other support) of a first instalment of fees is required by August 24, 1990. A student can avoid having to stand in line-ups during registration by ensuring that the first instalment reaches the university by that date. The balance of fees is due on January 11, 1991.

Returning students are required to submit a \$50 deposit, confirming their intent to return, prior to July 15, 1990. This deposit will be applied against the first instalment of 1990-91 fees which is due August 24, 1990.

Cheques or other remittances should be made payable to Trent University and mailed to the **Accounts Office, Financial Services, Bata Library, Trent University, Peterborough, Ontario, K9J 7B8.**

The full amount of fees is charged to a student's account at the beginning of the academic year. Interest is levied on any unpaid accounts in accordance with the details separately noted under *Late Payment Charges*.

Students whose fees are paid, in full or in part, by funds from scholarships and awards (other than OSAP), or from other sources of assistance, should consult the Supervisor in the Accounts Office, Financial Services.

Students are urged to consult the Financial Aid Office in advance if the enforcement of fee payment regulations will impose undue financial hardship. Arrangements for fee deferment may be made in exceptional circumstances, but only on the recommendation of the Financial Aid Office.

Tuition Fees

Students who register for three and one-half (3½) courses or more are considered full-time students and are required to pay full tuition fees. In 1989-90 this fee was \$1,517.00.

Part-time students taking three (3) courses or fewer during a session pay one-fifth of the full-time tuition fee for each full course registered. In 1989-90 this fee was \$304.00 per full course, \$152.00 per half course, or \$304.00 for two half courses.

A tax certificate covering paid tuition fees 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 affiliated with one of the five residential colleges must pay full ancillary fees for athletics, health services, and transportation. In 1989-90 these fees were \$85.00, \$21.00 and \$101.25 respectively.

Part-time students taking courses offered on the Peterborough campus pay ancillary fees for athletics and health services. In 1989-90 these fees were \$43.00 and \$1 respectively. Part-time students taking courses off-campus but who are required to visit the Nassau Campus three or more times per week on a regular basis are also eligible to purchase a transportation permit (\$101.25 in 1989-90). Students taking only off-campus courses are not required to pay ancillary fees (see also separate Continuing Studies Brochure for part-time studies).

Residence Fees

Full room and board is provided in single and double accommodation. In addition, limited townhouse accommodation is available without meals. In 1989-90 residence fees were \$4,029 for single, \$3,813 for double and \$2,231 for townhouse.

A \$200 deposit is required with the submission of residence application. Residence applications are submitted directly to 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. Non-resident students

may purchase a meal plan for a term or for the entire year (\$1,798 for year in 1989-90); payment in advance is required and arrangements should be made through the College Office. Special packages of meal tickets for lunch or dinner may be purchased from the Accounts Office in Financial Services, Bata Library.

College Fee

All students registered in three and one-half (3½) courses or more are automatically affiliated with one of the five residential colleges, and are required to pay a college fee (\$136.00 in 1989-90). Students registered in less than three and one-half (3½) courses are normally affiliated with the Julian Blackburn College and are required to pay a fee on a per full course basis (in 1989-90 the fee was \$22 per full course registered). If a part-time student, for some exceptional reason, wishes to be affiliated with one of the five residential colleges he/she is required to pay the full residential college fee.

Student Government and Organization Fees

All resident and non-resident students affiliated with one of the five residential colleges must pay full student government and organization fees. In 1989-90 these fees included Student Government \$30.25, Arthur \$9.00, Trent Film Society \$2.30, Trent Radio Service \$15.00, Trent Music Society \$1.50, Theatre Trent \$3.00, Trent International Students Association \$1.50, Proem Magazine \$0.99, Peterborough Rape Centre \$3.00, Women's Centre \$0.99, Trent Annual \$15.00, W.U.S.C. \$2.00, The Commoner \$2.00, O.P.I.R.G. \$7.00, OXFAM \$3.00 and Peterborough Learner's Centre \$4.00 (The Commoner, O.P.I.R.G., OXFAM and Peterborough Learner's Centre will provide refunds on request).

Students affiliated with the Julian Blackburn College must pay a Student Association fee. In 1989-90 this fee was \$10.00.

Books

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 \$125 per course. Most required books are available from the Trent University Bookstore.

Waiver of Undergraduate Fees

The University's Board of Governors have approved a policy to waive all but residence fees for students over 60 years of age who register in any credit course offered by the University.

Refund of Fees

Refunds are provided for all fees except those for student government and student organizations.

Students who wish to withdraw from Trent University must notify their College Head in writing. A refund of fees will be calculated by the Accounts Office from the date the written notice of withdrawal has been received by the College Office. The effective date of the refund of residence fees is subject to the regulations in the Residence Agreement signed by each student in residence.

Students who wish to change from full-time to part-time (i.e. drop the course load to three courses or fewer) will only be provided a refund in tuition fees. The refund will be calculated from the date a completed Change of Course Registration Form is received by the Office of the Registrar. Students must contact their academic adviser for a copy of the form and approval signature.

Student Charging Privileges

A student with a valid Trent University student identification card is permitted to charge purchases at the bookstore to his/her personal student account during the period September 1 to October 31 as long as the student manages his/her account in a responsible manner. Bookstore charges are due right away and students are expected to pay their accounts as soon as they are invoiced by the Accounts Office. Additional limited charging privileges for text book purchases only may be extended during the first two weeks of the second term to those students who have paid their 1st term accounts with the university for fees, bookstore and other charges in full by December 31. Bookstore charges are subject to interest from the date they are charged to the account.

The University reserves the right to withdraw charging privileges.

Late Payment Charges

Students who decide to charge fees or other types of charges (e.g. Bookstore) to their student account instead of paying cash should bear in mind that during the Fall Term except for the second installment of residence and college, all unpaid fees and other charges are due and subject to interest effective the date they are charged by the student to the personal student account. Interest will be charged on unpaid accounts at the rate of 1.3% per month on unpaid fees and 1.75% per month on other types of charges. The Winter Term installment of residence and college fees are exempted from interest during the Fall Term but will be subject to interest if not paid by January 25, 1991. Interest rates are subject to change.

Unpaid Student Accounts

Failure to pay unpaid balances for outstanding fees, bookstore accounts, library fines, short term loans and other charges by the end of the term may render a student ineligible to write examinations and result in deregistration from the University. Furthermore, no transcript will be released if a student has an unpaid account at the end of an academic session. Students with unpaid accounts are not eligible to pre-register

or register at Trent University in a succeeding year.

Deregistration for Financial Reasons

A student whose cheque in payment of fees and other charges has been returned unpaid by the bank will be automatically deregistered if payment is not received within fifteen days after being notified of the default by the Accounts Office. There is an automatic \$10.00 charge for returned cheques.

Outstanding first and second term fees, and bookstore and other charges incurred during the first term are expected to be paid in full by January 25. Students who have not paid their University account by January 25 and, who have not arranged for a valid deferment with the Financial Aid Office will automatically receive a notice that deregistration procedures have been started against them and that they will be deregistered from all courses at the end of February.

Schedule of Undergraduate Fees

To assist students in their financial planning, a fee schedule, based on 1989-90 rates, is included. The actual fees for the 1990-91 academic year will not be available until March 1990 after they have been approved by the University's Board of Governors.

SCHEDULE OF FEES

(based on 1989-90 fees and subject to revision for 1990-91)

Full-Time Undergraduate Students

	Tuition	Ancillary	Student Government & Organizations	College Fee	Residence Fee	Total	Minimum Payment to register (Aug. 24/90)*	Second Instalment (Jan. 11/91)
Students in residence								
— single room	\$1,517.00	\$217.75	\$100.53	\$136.00	\$4,029.00	\$6,000.28	\$3,225.00	\$2,775.28 + Int.
— double room	\$1,517.00	\$217.75	\$100.53	\$136.00	\$3,813.00	\$5,784.28	\$3,100.00	\$2,684.28 + Int.
— triple room**	\$1,517.00	\$217.75	\$100.53	\$136.00	\$3,594.00	\$5,565.28	\$3,000.00	\$2,565.28 + Int.
— townhouse	\$1,517.00	\$217.75	\$100.53	\$136.00	\$2,231.00	\$4,202.28	\$2,375.00	\$1,827.28 + Int.
Non-residence students	\$1,517.00	\$217.75	\$100.53	\$136.00	—	\$1,971.28	\$1,200.00	\$ 771.28† + Int.

Notes: *If you wish to avoid interest charges on fees during first term, the second instalment of tuition fees (\$707.00) should be included with the first instalment.

**Catharine Parr Traill College only.

Visa Students Visa students pay higher tuition fees than those shown above. In 1989-90 new visa students paid \$5,722 in tuition fees. Further information on 1990-91 visa student tuition fees will be available at a later date.

Student Aid

Ontario Student Assistance Program (OSAP)

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

Financial Assistance for Students from Outside Ontario

Students from outside Ontario who need financial assistance in university are strongly urged to consult with officials in their schools about available provincial loan and bursary assistance. Students from foreign countries are urged to consult with the appropriate financial aid authorities. 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, a bursary of the value of \$500 will be awarded to a deserving student in any undergraduate year, who is a resident of a province other than Ontario.

Barkley's of Avonmore Visa Bursary

This bursary will be awarded annually to a deserving visa student from a developing country.

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 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.

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.

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.

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 Administration and Policy 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.

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 extra-curricular activities within or beyond the university.

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 1st, 1982 to 30th March 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.

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 Heeney Memorial Award

Established in memory of the late Brian Heeney, Vice-President (Academic) and Provost of Trent University at the time of his death on September 17th, 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.

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.

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 P.C.V.S. Faculty Award

This award was established by the P.C.V.S. 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.

Kiwanis Club of Peterborough Bursary

A bursary of \$300 will be awarded annually to a student in second year or higher, majoring in Administration and Policy 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.

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 Métis 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 2nd, 3rd, or 4th year of a Business Management Program, based on satisfactory academic achievement and financial need.

Ontario Public School Teachers' Federation Bursary

Established by the Ontario Public School Men Teachers' Federation to provide assistance for deserving students of Métis 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 Col-

lege. 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 S.S.F.C. 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 third year of the Teacher Education Program for use in their fourth year.

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.

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.

T.U.F.A. 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.

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.

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.

Scholarships are of two sorts: entrance and in-course. All students entering first year (or transferring into a higher year) at the University are automatically considered for entrance scholarships and no separate scholarship application is required, although it is normally not possible to consider students applying to the University after August 1st. 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 their equivalent in half courses.

All University scholarships of both sorts may be held in conjunction with scholarships awarded by outside agencies when their conditions permit. However, a student may not normally receive funds from more than one major University scholarship in an academic year.

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 Director'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 Chairman 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 Scholarships

Champlain Scholarships are available for students of exceptionally high academic achievement and promise, whether entering the University or in-course. Each scholarship covers full tuition fees and, for students living in residence, full residence fees. The scholarship is renewed each year on those terms so long as the holder's work is of scholarship standing.

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 Cherney Scholarship is an annual award to meet tuition fees.

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.

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 Chairman 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 and Policy 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 and Policy 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 Heeney 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 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 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 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 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 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 and Policy 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 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.

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.

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.

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 Ordinary program who achieve high overall standing.

Administrative and Policy Studies Prize in Marketing

This prize, in memory of George Wills, marketing teacher at Lakefield Secondary School, is awarded to the leading Administrative and Policy Studies Program student in *Administration 310a/315b*.

Ambassador of Switzerland Prizes in French and German

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

Anthropology Society Prize

This prize is awarded to the most outstanding 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.

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 3rd- or 4th-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.

The William B. Common, Q.C., LL.D. Memorial Prize

Awarded to the student with the highest overall average in first year (Canadian) Economics.

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 undergraduate 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 Pro-

gram submitted to a juried competition held annually by the Program. Value \$300.

Currie Honours Awards

These awards are presented to two students enrolled in the fourth quarter 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., 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 301b* 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.

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 Chairman 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 Richard B. Johnston 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 and Policy 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 James Percy MacNaughton Prize

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

The McColl, Turner & Co. Prize in Accounting

Presented by McColl, Turner & Co., 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.

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.

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 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.

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 to the best student 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 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.

Scott Rennie Memorial Prize

This prize, the gift of family, friends and alumni, is awarded to a deserving Otonabee College student.

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.

J. Paul Scott Jr. Memorial Prize

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

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

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 and Policy Studies Program who has achieved the highest overall standing in all accounting subjects.

Department of Sociology Prizes

Two prizes of \$100.00 each are awarded annually to Sociology majors who demonstrate excellence in the study of Sociology. One of the prizes is named in honour of Professor Rodney F. White.

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 the Grade 13 student whose project is judged outstanding at the annual Peterborough-Northumberland and Durham 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 average.

Champlain College Fellows' Prize

The prize is awarded to the graduating student of the College with the second highest overall average.

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.

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.

Julian Blackburn College Student Association Prizes

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

Academic Regulations

Admissions

Application and Admission Procedures

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 for part-time studies, 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. Applicants must submit official transcripts to the University, or certified copies thereof, showing their standing in each subject.

Candidates for admission may be asked to attend an interview with the Admissions Committee. Each candidate for admission will be notified of the University's decision concerning his or her application as early as possible, within limits of the intra-university agreement cited above.

Admission Requirements

1. Normal Requirements

In order to be eligible for admission to Trent University, an applicant is required to achieve standing at a level acceptable to the University in a full Ontario Secondary School program. An applicant is required to have the Ontario Secondary School Honours Graduation Diploma (OSSHDG) or the Ontario Secondary School Diploma (OSSD), including a minimum of six Grade 13 subjects or six Ontario Academic Courses (OACs); or equivalent qualifications from other provinces or countries. For admission consideration, the *minimum* overall average required on six Grade 13 subjects or six Ontario Academic courses is 60%. *However, because of space limitations, applicants presenting the best qualifications will be given preference.*

In the transition period from the Ontario Secondary School Honours Graduation Diploma (OSSHDG) to the Ontario Secondary School Diploma (OSSD), both will normally be given equal credit for admission purposes.

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 to all programs must have successfully completed an unspecified OAC in English as well as having OAC's in a minimum of four separate academic disciplines. English OAC 1 is highly recommended, particularly for applicants to programs in the Humanities and Social Sciences.

As the Ontario Academic Course curriculum guidelines are implemented, the University reserves the right to alter specific subject requirements for various programs.

Specific Program Requirements

Administrative and Policy Studies

OAC Calculus is strongly recommended. Grade 12 Advanced Math will be accepted as the minimum requirement.

Biology

OAC Biology is strongly recommended. Students may major in Biology without OAC Biology by first successfully completing Trent's *Biology 100*.

Biochemistry

OAC Biology and OAC Chemistry are required.

Chemistry

OAC Chemistry and OAC Calculus are required. OAC Physics is strongly recommended.

Education

Grade 12 Advanced Math is required for the primary-junior and junior-intermediate divisions.

Environmental and Resource Science

OAC Chemistry and OAC Biology are strongly recommended. OAC Physics or OAC Geography are recommended.

Mathematics

OAC Calculus and OAC Algebra are strongly recommended. Grade 12 Advanced Math will be accepted as the minimum requirement.

Physics

OAC Calculus and OAC Physics are strongly recommended. One of OAC Calculus or OAC Algebra will be accepted as a minimum requirement.

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

2. Exceptions to the Normal Requirements

The University is prepared to consider other candidates who, while failing to meet the regular requirements, can satisfy the University that they are likely to be successful in university work. Applicants may apply as mature students if they have been out of a full-time educational program for a minimum of 2 years and are at least 21 years of age. Maturity, motivation, and experience will be taken into account. The Committee on Admissions may require the candidate to be present for an interview. Any candidate who wishes to apply for admission and who does not possess the normal requirements should write to the

Registrar, outlining academic qualifications, experience and the grounds on which admission is requested. Such candidates may be admitted outright or to probationary status in the full-time or part-time program for one academic session.

Applicants admitted on probation normally are required to maintain an average of 60% or higher in all the courses of a full-time program, if probation is to be cleared. The standing of students admitted on probation will be reviewed by the Committee on Undergraduate Standings and Petitions, and students will be informed if probation has been lifted.

3. Equivalents to Ontario Grade 13

Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island, Saskatchewan—Grade 12. *Newfoundland*—First Year, Memorial University. Applicants with Grade 12 standing only will be considered on an individual basis.

Quebec—Completion of Year I of a CEGEP program or equivalent.

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

Scotland—The Scottish Leaving Certificate.

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

Applicants from Colleges of Applied Arts and Technology—Candidates with satisfactory standing in at least two years of study in appropriate diploma programs will have their transcripts individually evaluated for admission and possible advanced standing. Applicants are asked to write to the Registrar for specific information.

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

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

4. Special Requirements

(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. The *minimum* acceptable score on the Test of English as a Second Language (TOEFL) is 550.

(b) Candidates wishing to enrol in the Trent-Queen's Teacher Education Program should refer to Education in the Courses of Study section of the Calendar for special admission requirements.

(c) Candidates wishing to study Mathematics and Physics at the University should have OAC/Grade 13, or equivalent standing in that subject.

5. Part-time Credit Studies

Candidates considering a program of part-time credit studies should consult the Part-Time Studies section and the Academic Programs and Standings section of the Calendar. Students currently enrolled in the part-time studies program who wish to enter the full-time program must apply to do so by June 15.

6. Refusal of Admission

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

7. Application Deadline

Applications will not normally be considered unless received, accompanied by complete documentation, by June 15. Teacher Education applications and documentation must be received by May 15. Candidates under Section 2 above (Exceptions to Normal Requirements) are particularly advised to apply in sufficient time for the Committee on Admissions to adjudicate their application status before this date.

Admission with Advanced Standing and Transfer of Credits

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. The normal maximum number of non-Trent courses that may be counted toward a Trent degree must not exceed half of the degree requirements. Students with high standing at another university, applying for completion of an ordinary degree, may be granted up to 10 courses of transfer credit. Students with high standing at another university applying for entrance to the fourth quarter, may, in exceptional circumstances, be admitted to the fourth quarter on the recommendation of the Department/Program concerned and with the permission of the Committee on Undergraduate Standings and Petitions. The last five courses of a degree program must be completed at Trent.

Candidates considering transferring into Trent to complete an Honours degree should read carefully the regulations dealing with the Honours program in the section of the Calendar dealing with Academic Programs and Standings. Such students should apply to the Registrar during the year in which they would qualify for an Ordinary degree at their first university and should work out an intended program with the relevant Trent department(s). The deadline for such applications is June 15.

Students who transfer from another university will be granted advanced standing on an individual course basis for courses in which a satisfactory grade has been received and which are directly comparable to courses offered at Trent. Advanced standing is assessed by the Committee on Admission in consultation with the department(s) concerned. *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.

Candidates from Colleges of Applied Arts and Technology with satisfactory standing in appropriate three-year diploma programs may receive advanced standing for up to five credits.

Candidates presenting satisfactory standing in A-levels or in the International Baccalaureate may receive advanced standing in individual subjects.

Transfer credits are included in the assessment of degree requirements as outlined in this Calendar in the section on Ordinary Programs.

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.

Applicants for advanced standing should consult the Academic Programs and Standings section of the Calendar and must arrange for the forwarding of official transcripts of their academic record to the Registrar, Trent University. Advanced standing will be assessed by the Committee on Admissions prior to the student's admission to the University. No requests for the re-evaluation of a student's transcript will normally be accepted after this time.

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.

College Application Information

Because all full-time students and faculty in the University are members of a Trent College, every applicant to the University must complete a college application form. All applicants to the full-time program will automatically receive this form along with the acknowledgement of their application to Trent.

Part-time students are automatically members of the Julian Blackburn College, unless they opt to pay a college membership fee for affiliation in one of the full-time colleges.

Registration

1. Entering Students

Entering 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 entering students to university life at Trent and to complete first-year 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.

2. 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.

3. Returning Students

In order to facilitate academic planning and to ensure a long-term enrolment balance at the University, returning students intending to continue full-time studies at the University in the Fall/Winter session are required to pre-register in accordance with policy approved by Senate. This process involves the completion of the Course Preference Selection (CPS) form, preferably in consultation with the Academic Adviser during the Winter Term. The CPS form must be submitted to the Registrar's Office by the last day of classes of the Winter Term. Returning students must

also complete and return the Confirmation of Intent to Register (CIR) form, which they will receive with their final grades in June. The CIR form together with a non-refundable deposit against tuition must be submitted by July 15 to the Registrar's Office. Returning students who fail to complete both stages of pre-registration cannot be assured a place in the University, and must apply for re-admission to any available places beginning August 1. Returning students re-admitted in this manner will incur a \$50 processing fee.

Payment of fees or deposits related to tuition or residence, does not obviate the need to comply with deadlines and procedures related to admission, pre-registration and registration. *Financial eligibility does not guarantee academic eligibility.*

4. Completion of Registration

Registration is complete when the individual has visited the Head of College, has paid fees, has visited the Health Services has provided required documentation regarding citizenship and eligibility to study in Canada and, following consultation with the academic adviser, is enrolled in an approved program of studies at the course registration centre. Students should register in all half-courses regardless of suffix during course registration in September.

In exceptional circumstances students may register late if they have obtained permission from their College Head and the Registrar. Late registrants will be charged a late fee unless compassionate grounds can be established to the satisfaction of the College Head.

Any student who has not completed course registration by the third Friday of term shall normally be required to leave the University.

5. Part-time Registration

Registration for part-time students is conducted in person or by mail on application forms available from the Julian Blackburn College. Please see part-time summer or winter brochures for further details.

Academic Programs and Standings

Academic Programs

Note: It is the sole responsibility of the student to ensure that the courses required for the granting of a degree have been satisfactorily 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.

The Faculty of Arts and Science offers the following degree programs: a Bachelor of Administrative Studies (Honours), a Bachelor of Arts (Honours) or Bachelor of Science (Honours), a Bachelor of Arts (Ordinary) or Bachelor of Science (Ordinary).

The degree programs are designed to be flexible so that the particular needs and interests of individual students may be satisfied.

1. Course-Load

Any student registered in 3½ or more courses is considered to be a full-time student. Any student registered in three or fewer courses is classified as a part-time student. The normal load for a full-time student in the Fall/Winter Session is considered to be the equivalent of five full courses.

Students enrolled in 3 or fewer courses in one Winter Session must apply by June 15 to the Registrar's Office if they wish to transfer to full-time status for the next Winter Session. This regulation applies both to those who are enrolled in the Part-time Studies Program and to those who drop from full-time to part-time enrolment status during that Session. Any such student who has been placed on probation will not normally be considered for admission or re-admission to the full-time study program.

2. Overload Programs

Students wishing to enrol in more than five full courses or equivalent in the Fall/Winter Session must obtain special permission to do so from the Committee

on Undergraduate Standings and Petitions. Such appeals to the committee must be submitted through the Senior Tutor of the student's college.

For details of normal workloads and overload programs in the Summer Session, please see the Summer Session brochure or contact the Julian Blackburn College.

3. Course Sequence

In the first-year program four courses must be taken from different disciplines, and three courses must lead to majors in distinct departments or programs. These regulations were established to ensure that students have a liberal breadth of study before commencing concentration in one or two areas of study. Part-time students are normally expected to meet the same requirements at some point in their academic programs. While transfer students are generally governed by the same regulations, it may not make academic sense for an upper-year transfer student to attempt to meet these regulations at the first-year level. To do so, for example, might mean exceeding the limit of seven *one-hundred* series courses. In such cases students are advised to consult the Senior Tutor of their college who can advise how this regulation may be met.

A number of upper-year courses are open to first-year students by permission of the instructor and the department. Students with special interests should check the Calendar listings carefully. If no prerequisite is listed, consult the department Chair.

4. Course Changes

Course changes must be made on a form available from the academic adviser or for part-time students from the Julian Blackburn College.

A student wishing to change or drop a course or class selection must have the form signed by the instructor of the course or section which is being dropped, by the instructor of the course or section which is being added, and by the academic adviser. Part-time students require only the signature of the instructor of the course or section being added.

The deadline for adding or changing full or a half-courses is the third Friday of the Fall Term.

A student wishing to drop a course must use the same form and have it signed by the instructor of the course

which is being dropped and by the academic adviser. Part-time students use a different form and are not required to obtain these signatures.

Students wishing to add, change or withdraw from *a* and *b* half-courses must do so in accordance with the deadlines outlined in the University Diary. For *c* half-courses the same regulations apply as for full courses. Automatic withdrawal from *b* half-courses will occur when the student has withdrawn from or has failed, the prerequisite *a* course. Such students wishing to retain the *b* half-course must submit written permission of the instructor of the *b* half-course to the Registrar's Office no later than the date for changing or adding *b* half-courses.

If as a result of course changes a full-time student drops to part-time status, such a student would then continue in the part-time studies program and must apply for subsequent re-admission to the full-time studies program through the Registrar's Office.

5. Deadlines for Course Changes

The student is responsible for making sure that all copies of the change form are received at the Registrar's Office by the deadlines outlined in the University Diary. Those students who miss deadlines because of extraordinary circumstances may petition the Committee on Undergraduate Standings and Petitions for special consideration.

A student who abandons a course after the prescribed deadline shall be deemed to have failed that course.

6. Withdrawal

Students withdrawing from a course or courses should consult their academic adviser. In all cases, the effective date of withdrawal will be the date the completed documentation is received in the Registrar's Office. Students considering withdrawing from the University as a whole must consult their College Head or Senior Tutor. Although such procedure is initiated through the College Office, withdrawal is complete only when the completed forms are received in the Registrar's Office. Part-time students withdrawing from the University must notify the Registrar's Office in writing. If formal notice of withdrawal is not received, the student may be charged with academic failure and will be responsible for financial obligations.

7. Retroactive Withdrawal

Retroactive withdrawal may be granted upon petition to the Committee on Undergraduate Standings and Petitions (C.U.S.P.) 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 would 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 the academic session, such a request normally applies to all the courses in which the student was registered at that time, unless it can be shown that the circumstances affected adversely only a particular course or courses. The final dates for such petitions are July 15 for a full course or a *b* half-course, September 30 for a course in the Summer Session, and March 15 for an *a* half-course.

8. Letters of Permission

A student may be permitted to take a limited number of courses at other universities on a letter of permission. This must be obtained from the Registrar's Office *before* the course is taken, *as retroactive approval will not be granted*. Letters of permission are issued under the authority of the Committee on Undergraduate Standings and Petitions. In the case of a course or courses in a student's major, the approval of the department concerned must also be obtained first. Correspondence courses are not normally allowed on a letter of permission.

Students wishing to undertake summer courses at another university on a letter of permission are advised to take only one, and will not be permitted to attempt more than two full courses or their equivalent during the Summer Vacation and Reading Period. Students on probation may take only one course at a time on a letter of permission.

The maximum number of full courses for which credit may be given through letters of permission is normally five in either the Ordinary or Honours program. In the case of transfer students it may be fewer than five, depending on how many credits they have brought with them. The total number of non-Trent credits may not normally exceed one-half of the

total degree requirements. It should be noted also that the last five courses offered by a candidate for a degree must 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 of \$25 is charged for letters of permission.

9. Study at Foreign Universities

Students wishing to take a full year of study at a foreign university must have their plan of study approved by the department(s) of major concentration before such leave will be granted. Courses in such programs should be roughly comparable to those which would have been taken had the year been done at Trent. *A letter of permission must be obtained in advance.*

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

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

Assessment of Performance

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

- (a) oral and written work completed during term;
- (b) any mid-year or other term tests or examinations;
- (c) 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 syllabus at the start of each year. The 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 (see Ordinary Program—Regulations), 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.

2. Mid-Year Review

At the beginning of the Winter Term, a mid-year report summarizing academic performance and concerns is prepared by the course tutor for each student. The academic adviser and the Senior Tutor of the College will also receive a copy 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.

Beginning June 1982, the following grading scheme now applies:

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	

Precise 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 following Fall Convocation. 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. 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 very often requests for extensions or special examinations may be granted. In more serious cases the Academic Adviser or Senior Tutor should be consulted. In certain specific circumstances, petition may be made 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 department Chair regarding the method used to determine an Aegrotat final mark. In some situations, the writing of a final examination at a later date may be required. 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 the remaining work in a course at some specified date following the end of the academic term. Incomplete standing will be granted only where a student is unable to complete in the prescribed time the required work in a course for reasons beyond the student'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 in itself be considered an adequate reason. Petitions for Incomplete Standing must be made through the department concerned and must be accompanied by adequate supporting documentation.

Students with Incomplete standing

from the Fall/Winter or Summer Session must normally resolve the Incomplete standing by August 31 of that year, and except in compelling and well documented circumstances a student will not be allowed to register in any subsequent course(s) until that Incomplete standing is resolved.

Candidates for convocation with Incomplete grades from the Winter Session still outstanding on the last day for the submission of final grades to the Registrar's Office cannot be considered for convocation at the Spring ceremony. Similarly, candidates for convocation with Incomplete grades from the Summer Session still outstanding on the first day of classes of the Fall/Winter Session cannot be considered for convocation at the Autumn ceremony.

7. Appeals

Students enrolled at Trent University who believe that the application of University regulations has worked undue hardship on them should appeal first to the Chair of the department or committee responsible for the adverse ruling; subsequently, a petition to the Committee on Undergraduate Standings and Petitions (C.U.S.P.) may be required. Such petitions must be submitted through the Senior Tutor of the student's college.

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. All failing marks will receive special scrutiny by a departmental committee.

Before final release the marks of each student will be reviewed by a committee of Senate. Every student has a right to appeal final standing in any course, regardless of mark, but in considering such appeals only the final examination will normally be reassessed. All appeals should be made in writing to the Registrar's Office before July 15, or September 30 in the case of Summer Session. Appeals in a half-courses should be made by March 15. 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.

Special Appeals

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

Policy on 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 in-

advertently 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 C.U.S.P., 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 C.U.S.P. shall place it in the student's file in the Registrar's Office. The secretary of C.U.S.P. 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 C.U.S.P. for C.U.S.P. to impose the appropriate penalty for a second (or third or fourth) offense.
- e) If C.U.S.P. 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 C.U.S.P. 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.

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 C.U.S.P. and against the judgement and penalty imposed by C.U.S.P., 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.
- 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. Definitions, procedures, and penalties for dealing with plagiarism are set out in Trent University's *Policy on Plagiarism* which is available on request from every department or college office or from the Registrar's office.

Uniformity of Policy

This present *Policy on Plagiarism* as approved by Senate at its meeting of 22 March 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 22 March 1988

Academic Penalties

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

- (a) **Probation** may be imposed either as a condition of admission to the University or after unsatisfactory performance. Probation is a warning of a poor academic situation which, if not corrected, can lead to a more serious penalty.
- (b) **Rustication**, a minimum of one year's absence from the University, may be imposed with or without a period of probationary status.
- (c) **Debarment**, a minimum of three year's absence from the University, will normally occur as a result of a weak academic performance subsequent to the imposition of rustication.

In determining a student's academic status, a session-average will be employed. This session-average is defined as the mean grade earned in a minimum of 3.5 courses taken either concurrently, or consecutively. Thus a part-time student may require two or more academic sessions to complete the equivalent of a full-time sequence. All courses completed during one such period will be counted in determining the session-average. The Committee on Undergraduate Standings and Petitions may reconsider and alter the implications of a session-average which is unduly affected by extremes in course grades.

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

- (a) Students with a minimum session-average of 60.0% will be *eligible to proceed*.
- (b) Students with a session-average of 50.0% to 59.9% will be *placed on probation*.
- (c) Students with a session-average of less than 50% will be *rusticated*.

A student placed on probation (either upon admission or through (b) above) will have his or her academic standing examined after the completion of the next full-time course load or equivalent (i.e. a minimum of 3.5 courses). A session-average of 60.0% or better will clear that student's probation, and he or she will be eligible to proceed. A session-average of less than 60.0% will normally result in rustication.

A student returning to the University after a term of rustication will upon successful application for readmission be considered as placed on probation. If such a student over the next full-time load (minimum of 3.5 courses) fails to achieve a session-average of 60.0%, the penalty will be debarment. A session-average of 60.0% or more will clear the probation.

Convocation and Transcripts

Students qualifying for a degree will normally convocate at the ceremony immediately following the academic session in which they qualify for their degree. In addition to academic qualifications, students must have cleared all financial obligations to the University.

Graduates may be permitted to delay taking part in the ceremony for one convocation because of personal illness or the illness of a member of the immediate family, but not because of travel plans or other reasons of personal convenience.

Students with Incomplete standing in certain courses or on letters of permission which have been duly approved will be required to delay their convocation if final grades are not available to the Registrar's Office by the last date for the submission of final grades in the Winter Term or in the case of the Summer Session by the first day of classes in September.

Official copies of a student's academic transcript are transmitted by the Registrar's Office directly to other institutions only at the student's request. Transcript charges are as follows: 1-5 copies \$3.00 each; 6-10 copies \$2.50 each; 11 or more \$2.00 each. Payment of the fee is required in advance of the release of the transcript. 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.

Students who have completed their degree requirements satisfactorily but who have been forced to delay their convocation will be able to have transcripts appropriately notated and issued, provided their financial affairs are in order.

Academic Degree Programs

Honours Program

1. Honours Standing

Trent University encourages incoming students to plan a program leading to a single-major or joint-major Honours degree. In order to facilitate student planning at the end of every academic session, the Registrar's Office calculates the cumulative grade average for all students who have completed at least four courses. The following criteria will be employed to define Honours Status and such a designation will appear on the Student Grade Report:

- (a) at 4 courses (the first quarter)—minimum cumulative average of 65%,
- (b) at 10 courses (the second quarter)—minimum cumulative average of 65% plus at least 3 courses with grades of 70% or better,
- (c) at 15 courses (the third quarter)—minimum cumulative average of 65% plus at least 8 courses with grades of 70% or better; of these at least 5 must be two- or three-hundred series courses. This requirement must be met in no more than 17 courses completed for credit.

Students are eligible to be considered for admission to the fourth quarter of the Honours Program during the third quarter of study. The individual courses to be taken, as well as any additional grade requirements for the fourth quarter, are established by the department(s) or program(s) concerned and are contained in the Calendar entry for the relevant discipline(s). When the student has completed the fourth quarter of his/her program, the department recommends to Senate the awarding or withholding of the Honours degree based upon criteria outlined in the Honours Brochure of the Department(s)/Programs involved. Upon completion of the Honours degree requirements, an overall standing for Honours will be calculated based upon the average of grades achieved in the courses required in the major(s). Courses in excess of the minimum requirements need not be included in the calculation.

2. Procedures for Admission to the Fourth Quarter

In the third quarter, students intending to complete the Honours degree will fill out an Honours Form listing their course selections for the remaining courses. These selections must conform with department or program requirements. Normally, when one discipline in a joint-major program permits a 19-course Honours degree, the number of courses required by either discipline in the fourth quarter cannot exceed 2.5 unless it is necessary to meet degree requirements.

These applications will be discussed by the department and program committees and then forwarded to the Registrar's Office. The Committee on Undergraduate Standings and Petitions will be responsible for reviewing cases which would involve waiving the normal requirements.

Students who have maintained their Honours status will normally proceed to the fourth quarter without question. However, limitations of facilities or resources may in extraordinary circumstances dictate enrolment restrictions. In such cases:

- (a) the department or program must state in writing its reasons for denying admission;
- (b) these reasons must accord with a formal policy statement appearing in the annual departmental brochure, worked out in consultation with the Dean and available on request to students;
- (c) if appropriate, the department or program may outline conditions under which students may upgrade their academic records to qualify for subsequent admission to the fourth quarter, but normally students will not offer more than 17 courses completed for credit;
- (d) students will have recourse to the Committee on Undergraduate Standings and Petitions for appeal.

Students who do not meet the normal minimum requirements for admission to the fourth quarter may petition the Committee on Undergraduate Standings and Petitions for special consideration, as long as their petitions have been endorsed by their departments or programs.

In each department or program, certain courses (e.g. a thesis course) may be open only to Honours students who have completed 15 full courses. For

students in a joint-major Honours program, both halves of which either permit or require a double-credit thesis course, a thesis on a topic acceptable to both disciplines may be awarded credit in each (i.e. two full course credits in total).

When the final grades are known, students will be informed of their status regarding the fourth quarter of study. Students intending to continue their studies in the fourth quarter are required to complete the same pre-registration process as outlined in the section on *Returning Students*. New applicants to the University, or students returning from a year or more of absence, are required to make application to the Registrar's Office early in the calendar year, but not later than July 15.

Students wishing to undertake an Honours Program on a part-time basis should consult the Chair of the department concerned to confirm the details of the program. Ratification of such a program by the Committee on Undergraduate Standings and Petitions is required.

3. Academic Standings Required for an Honours Degree

An Honours degree is awarded upon the successful completion of 19 or 20 courses or the equivalent with a minimum cumulative average of 65% and a minimum of 10 full-course equivalents for a 19 course degree and 11 full-course equivalents for a 20 course degree with marks of 70% or better. Within the fourth quarter the minimum required standing is determined by the major department(s).

- (a) of the 19 or 20 courses counted toward the Honours degree, not more than seven may be *one-hundred* series courses;
- (b) at least seven full courses at the *three-hundred* series (or equivalent) and *four-hundred* series must be included;
- (c) no more than 12 courses of a 19 course Honours degree, or 13 courses of a 20 course Honours degree, may be given credit in any one discipline;
- (d) at least four distinct discipline areas must be included in the student's degree program. This requirement is normally fulfilled in the first quarter;
- (e) at least three courses must lead to majors in distinct departments or dis-

ciplines. This requirement is also normally fulfilled in the first quarter;

- (f) a course may be repeated for degree credit, only if the grade on the preceeding attempt was below 60%;
- (g) of the minimum number of courses required for a major, not more than one with a D standing may be accepted for credit toward the Honours degree;

4. Bachelor of Science (Honours)

In order to be eligible to graduate with a Bachelor of Science degree, a student must have completed a Grade 13/Ontario Academic course in Mathematics, or equivalent, or a university level Mathematics course. Students will automatically qualify for a Bachelor of Science (Honours) degree who successfully complete one of the following courses of study:

- (a) a single-major Honours program in *one* of Biology, Chemistry, Environmental and Resource Studies (B.Sc. option), Mathematics, Physics, and Psychology;
- (b) a joint-major Honours Program in two of Anthropology, Biology, Chemistry, Computer Studies, Economics, Environmental and Resource Studies (B.Sc. option), Geography, Mathematics, Physics, and Psychology.

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 of Arts (Honours) degree.

Students completing a single-major Honours program in Anthropology, Economics, or Geography or those completing a joint-major Honours program in *one* of Biology, Chemistry, Computer Studies, Environmental and Resource Studies (B.Sc. option), Mathematics, Physics, or Psychology and in another discipline not listed in this section may petition to receive a Bachelor of Science (Honours) degree if they have completed a minimum of 14 science courses within their Honours Program. These petitions will be made on the form for Application for Graduation and will be considered by the Committee on Undergraduate Standings and Petitions. The student will require the support of the department(s) concerned.

5. Bachelor of Administrative Studies (Honours)

- (a) 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 a course of study conforming to its criteria. Admission is not permitted after the completion of more than 17 courses if taking further courses is necessary to attain the required minimum average.
- (b) a minimum average of 65% in Grade 13 is normally required for admission to Year 1, but some applicants with lower standing may be conditionally admitted to the Program.
- (c) successful completion of Grade 12 advanced Mathematics or the equivalent is required for admission.
- (d) to remain in the Program, a cumulative average of B- in Administrative and Policy courses must be maintained. Students who are unable to maintain this average must transfer to a B.A. or B.Sc. program in another discipline.
- (e) to complete the Program successfully, students will be required to obtain twenty full-course credits or their equivalents with a 70% average in the required courses.
- (f) upon successful completion of the third year, students who have met the requirements for a single-major Ordinary degree in Economics may convocate with that degree. If a student who exercises that option then returns for the fourth quarter of the Administrative and Policy Studies Program, the B.A. must be returned before the B.A.S. can be awarded. In other words, the same work can be presented for obtaining one degree only.
- (g) it is not possible to joint-major in Administrative and Policy Studies.

Ordinary Program

1. Regulations

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

- (a) Of the fifteen courses counted toward the Ordinary degree, not more than seven may be *one-hundred series* courses.
- (b) At least four full courses in the *three-hundred series* (or equivalent) must be included.
- (c) No more than eight courses in any one discipline may be offered for credit toward the Ordinary degree.
- (d) At least four distinct discipline areas must be included in the student's degree program. This requirement is normally fulfilled in the first quarter.
- (e) At least three courses must lead to majors in distinct departments or disciplines. This requirement is also normally fulfilled in the first quarter.
- (f) For an Ordinary degree, a student must obtain a minimum of 60% standing in at least twelve of the fifteen courses and at least 60% standing in at least seven *two-hundred* or *three-hundred series* courses.
- (g) A course may be repeated for degree credit, only if the grade on the preceding attempt was below 60%.
- (h) Of the minimum number of courses required for a major, not more than one with a D standing may be accepted for credit toward the major.
- (i) No more than three courses with D standing may be accepted for credit toward the Ordinary degree.
- (j) No more than two D grades may be counted among the last ten courses of a Special Emphasis program.

2. Single-major Program

This program is designed for the student who wishes a broad education with concentrated work in a single subject. Where a particular department requires a *one-hundred series* course for the purposes of a major, a grade of 60% or better must be obtained in that course, if the student is to be permitted to major in that discipline. Precise requirements for a major depend on departmental regulations and recommendations, but in no case will the total number of courses for credit in the subject of the major be

fewer than six or greater than eight. Students wishing to undertake a single-major should consult their advisers and their tutors in the discipline concerned.

3. Joint-major Program

This program is designed for students wishing to take a fairly specialized education in two subjects. Where a particular discipline requires a *one-hundred series* course for the purpose of a major, a grade of 60% or better must be obtained in that course, if the student is to be permitted to joint-major in that discipline. Precise requirements for a joint-major depend on departmental regulations and recommendations, but in no case will the total number of courses for credit in each of the subjects be fewer than five, nor the total number of courses taken in the two disciplines be greater than twelve. No department can require a student to take more than six courses in that discipline.

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

4. Bachelor of Science (Ordinary)

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.

A Bachelor of Science (Ordinary) will automatically be awarded to students who successfully complete one of the following programs of study:

- (a) a single-major in the Ordinary program in *one* of Biology, Chemistry, Environmental and Resource Studies (B.Sc. option), Mathematics, or Physics.
- (b) a joint-major in any *two* of the above five disciplines.
- (c) a joint-major in the Ordinary program in any *two* of Anthropology, Biology, Chemistry, Computer Studies, Economics, Environmental and Resource Studies (B.Sc. option), Geography, Mathematics, Physics, or Psychology.

Students who successfully complete a joint-major in the Ordinary program 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 of Arts (Ordinary) degree.

Students with a single-major in Anthropology, Economics, Environmental and Resource Studies (B.Sc. option), Geography, or Psychology may petition to receive a Bachelor of Science (Ordinary). This petition will be made on the form for Application for Graduation and will be considered by the Committee on Undergraduate Standings and Petitions. The student must have the support of the department concerned. Normally a single-major candidate in Anthropology, Economics, Environmental and Resource Studies (B.A. option), Geography, or Psychology who presents fewer than eleven courses from among the ten disciplines listed in this section will receive a Bachelor of Arts (Ordinary) degree.

Special Emphasis Program

The Special Emphasis Program has been established at both the Ordinary and Honours levels in order to provide for students whose academic needs cannot be met by majoring in any of the existing departments or programs. While the Special Emphasis Program allows considerable scope for students to define their own program from the University's course offerings, 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.

A student wishing to pursue a Special Emphasis Program should consult the Senior Tutor of the College early in the Winter Term of the first year. The Senior Tutor will advise the student in drawing up a proposal, in obtaining the approval of tutors in the disciplines concerned, and in ensuring that the program will meet University degree requirements. Normally the Senior Tutor will become the student's academic adviser if the program is approved.

The authority to approve and to monitor the Special Emphasis Program rests with 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 in early April of the first quarter. A proposal will outline the integrating rationale of the program and present the remaining ten courses required to fulfill the Ordinary degree program. In exceptional cases only will the Committee consider applications from students with ten course credits. In such instances, the second-year courses must be consistent with the rationale behind the program.

Students are reminded that after enrolment in the program only two D grades among the ten remaining courses may be counted for credit.

Students considering a Special Emphasis Program for the Honours degree must in conjunction with their Senior Tutor prepare a statement of the work which they intend to carry out during their final four or five courses, at least two of which must be *four-hundred* series courses. This statement should be submitted to the Committee on Undergraduate Standings and Petitions during the Winter Term of the year in which the student expects to complete the Ordinary degree. 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 normal entrance requirements for the fourth quarter of the Honours program. If the proposal is approved by the Committee, a special advisory committee will be established to advise the student and will be co-ordinated by the Senior Tutor. This committee will normally consist of the instructors of the chosen courses. This advisory committee will be responsible for making the recommendation to Senate for the awarding, deferring, or withholding of the Honours degree.

Special Emphasis — International Studies

Special Emphasis, International Studies is available as an interdisciplinary Honours Program to provide for students whose international interests cannot be accommodated within a major in a particular department or program. Courses are chosen from those offered by departments and programs, and students must provide a rationale for their choices. Students interested in International Studies should write, during the summer, to the Director of the International Program, for information and guidance about choosing first year courses. Applications for entry into Special Emphasis, International Studies, are to be made by February 15 of the first year 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).

International Program

The Trent International Program offers an unusual 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, to increasing their sensitivity to different cultures, and, in the long term, to promoting international understanding. This year there are 400 students in the program, representing 56 countries and most Canadian provinces.

Students who enrol in the program have a normal choice of course offerings at Trent: they may 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. In addition, the program organizes many social and cultural events.

Academic requirements:

- North American schools: demonstrated academic proficiency, or
- General Certificate of Education: five ordinary level passes and two advanced level papers with a minimum C average, or
- International Baccalaureate diploma: minimum of twenty-eight points, or
- Equivalent standard from other countries.

Note: Advanced credits will be assigned to higher level International Baccalaureate marks of five or better. General Certificate of Education marks of C or better in advanced level examinations will receive credit. Advanced credits for courses from other countries with an equivalent standard of education will be considered.

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, The International Program, explaining why they wish to take part in the program.
3. Unless a student has been studying in English and has written a set of university entrance examinations in that language, either the TOEFL test (minimum score, 550) or the Michigan Test (minimum score, 85) must be taken. Students with the International Baccalaureate Diploma who have scored 5 or better in Higher or Subsidiary Level English are not required to take a language test.

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

Part-time Studies

Less than two years after opening its doors in September 1964, the University began planning for a program of part-time studies which began formally with Trent's first Summer Session in 1968. The program, which has grown from those small beginnings, is now one of the largest and most important in the University. The office which administers all aspects of this program and provides academic and other counselling to Trent's more than 2,000 part-time students is Julian Blackburn College for Continuing Education, which is further described in the "Colleges" section of the Calendar.

The aim of Trent's part-time studies program is to make the University's academic programs available to those students who, for a variety of reasons, do not choose to pursue their studies full-time, but who wish to take university credit courses either for interest, or as part of an Ordinary or Honours degree program. In keeping with this aim Trent maintains a flexible admissions policy which puts a high value on the applicant's maturity and motivation and is thus particularly advantageous to many prospective part-time 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 that they have the prerequisites for the course. For the convenience of part-time students, especially those who prefer evening or off-campus locations, Julian Blackburn College produces several brochures during the year for both on-campus and off-campus courses. These may be obtained directly from the College by calling (705) 748-1229.

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. As every attempt is made to rotate the courses offered at these times from year to year, roughly half of all the University's courses become available within one or other of these periods over about a four-year period. The courses to be offered in late afternoon or evening hours

in the coming Fall/Winter Session are highlighted in the *Part-time Studies Fall/Winter Session Brochure* which is published annually in the June preceding the Fall/Winter Session concerned.

Fall/Winter Off-Campus Evening Program

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

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 the February preceding the Summer Session concerned.

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 autumn 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 philosophical and ethical principles, legal aspects and practical considerations regarding animal research. No prerequisites. Mandatory for all students who plan individual projects which include handling and experimentation with live vertebrate animals in courses such as *Psychology 375a, 376b, 400; Biology 314a/b, 339a/b, 382, 386a/b, 390, 400, 490 and ERS 400*. Eight one-hour lectures to be arranged at beginning of Autumn and Winter Terms. This course cannot be credited towards a degree.

Administrative and Policy Studies

Associate Professor and Director of the Program

D. Torgerson, B.A. (CALIFORNIA-BERKELEY), M.E.S. (YORK), M.A., PH.D. (TORONTO)

Professor

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

Assistant Professors

B. Ahlstrand, B.A. (TORONTO), M.Sc. (L.S.E.), D.Phil. (OXFORD); D. Beatty, B.A. (TORONTO), M.A., PH.D. (MICHIGAN STATE); K.L. Campbell, B.A. (TRENT), M.B.A. (TORONTO)

Visiting Assistant Professor

D. Newhouse, B.Sc., M.B.A. (WESTERN ONTARIO)

Adjunct Faculty

B. Brower, C.G.A.; I. Henniger, M.A. (MCGILL); R. Beninger, B.A. (TRENT), L.L.B. (OTTAWA), L.L.M. (LONDON); A. Philpot, B.A. (WILFRID LAURIER), L.L.B. (TORONTO), L.L.M. (LONDON); A. Rahilly, B.Sc. (DUBLIN), M.B.A. (TORONTO); R. Taylor, B.A. (TRENT), LL.B. (QUEEN'S)

Associated Faculty

Computer Studies, J.W. Jury;
Economics, M. Arvin, T. Drewes, M. Huberman, H. Kitchen, J. Muldoon, P. Wylie; *History*, B. Hodgins, D. McCalla; *Mathematics*, C. Carter; *Political Studies*, J. Driscoll, M. Gunther, V. Lyon, R. Paehlke, J. Wearing; *Sociology*, P. Bandyopadhyay, C. Huxley; *Vanier Professor*, T.H.B. Symons.

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

The objective of the Administrative and Policy 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 this 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 Program, a cumulative average of B- (70%) in the Administration and Policy courses 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 who are academically ineligible to enter the fourth year of the B.A.S. Program, may, after consultation with the Director of the Program, petition C.U.S.P. for special consideration. Students entering the fourth year must discuss their course choices with the

Director before registering, preferably by May 1 of the previous academic year.

Required Courses

Year I

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

Year II

Administration 201a and *202b*, *Administration 210a* and *211b*, *Administration 250*, *Economics 225a* and *220b* 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, one further Administration course, one Policy course, one additional course in either Policy or Administration, and one elective.

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 limited to Administrative and Policy Studies students.

I.D. Chapman and staff

Administration 190

Introduction to management in native organizations within the context of "western" management principles. The course will conclude with discussion of the fundamental business and economic development issues that face the emerging aboriginal self-government in Canada. There will be one weekly lecture, and two one-hour seminars. Case studies and guest lectures will be used extensively.

D. Newhouse

Economics 101a/b

Introductory microeconomic analysis. (See Economics)

Economics 102a/b

Introductory macroeconomic analysis.

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. *Not open to first-year students.*

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 ongoing management decision-making. Topics include: manufacturing accounting; cost accounting and variance analysis; cost allocation; cost-volume-profit analysis; introduction to budgeting. Prerequisite: *Administration 201a*.

Students may not count both Administration 202b and Administration 305b for credit.

Staff

Administration 210a

Microeconomic theory and applications for students in the Administrative and Policy Studies Program. Production theory and applications, theory of market structure; theory of factor inputs, investment, labour supply and welfare economics. Use of theoretical tools to solve simple microeconomic problems. Discussion of policy implications. Prerequisite: *Economics 101a/b* and *102a/b*. Students may take *Economics 200* in lieu of *Administration 210a* but cannot count both courses for credit.

Staff

Administration 211b

Macroeconomic theory and policy for students in the Administrative and Policy Studies Program. National income accounting, inflation, unemployment, government budget, international trade and exchange rate policies. Use of theoretical tools to solve simple macroeconomic problems. Discussion of macroeconomic policies in the North American context. Prerequisite: *Economics 101a/b* and *102a/b*. Students may take *Economics*

201 in lieu of *Administration 211b* but cannot count both courses for credit.
Staff

Administration 250

Administration and policy. Introduction to basic concepts and a comparative survey of selected public and private organizations. Development and implementation of plans and policies; relationship of internal structure and process to the organizational environment; dynamics of an organizational field. Prerequisite: One of *Politics 100*, *Sociology 100*, or *Sociology 110*.
B. Ahlstrand and D. Torgerson

Administration 293a

Financial accounting and control within contemporary aboriginal organizations.
D. Newhouse

Administration 294b

Management control systems within contemporary aboriginal organizations.
D. Newhouse

Computer Studies 202a

Intermediate computer science. (See Computer Studies)

Computer Studies 203b

Data structures and processing. (See Computer Studies)

Computer Studies-Mathematics 241a

Computational algebra with applications. Prerequisite: *Mathematics 110* or *130*. (See course description in Mathematics offerings)

Computer Studies 300a

Information management and data base design. Prerequisite: *Computer Studies 203b*. (See Computer Studies)

Economics 225a

Introduction to mathematical economics. (See Economics)

Economics 220b

Introduction to econometrics. (See Economics)

Administration 300

Financial accounting. An examination of generally accepted accounting principles related to income measurement and asset valuation, financial statement presentation and analysis, taxation and other matters of current interest. Prerequisite: *Administration 201a/202b*.

Administration 305b

Managerial accounting. (Not offered 1990-91. See *Administration 202b*.)

Administration 310a

Introduction to marketing (Part I). This

course looks at the marketing subsystem of an organization, examining the variables and strategies that affect each part of the marketing mix. Students are encouraged to relate marketing to their own experience as consumers, and to pursue areas of specialization within the marketing field. The emphasis in this course is on acquiring the basic vocabulary and discriminations in the field of marketing. Prerequisite: *Administration 201a/202b*.

Administration 315b

Introduction to marketing (Part II): This course is a continuation of *Administration 310a*. Students are expected to have a grasp of the dynamics of marketing strategy, and to examine how marketing strategy is implemented in specific organizations. Where possible, students are encouraged to do a project with a local organization. Prerequisite: *Administration 310a*.
D. Beatty

Administration 320a

Financial markets. Prerequisite: *Economics 101a/b* and *102a/b*. (Not offered this year.)

Administration-Psychology 322b

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. Prerequisite: *Administration 250*, or any full (or equivalent) two-hundred series Psychology course, or permission of the instructor.
B. Ahlstrand

Administration 324a

An introduction to the law aimed at explaining its origins, objects and limitations and at developing in the student an understanding of the law and its role as an instrument of administration and social policy. Cases, statutes and the work of legal theorists will be considered. Prerequisite: *Administration 250* or permission of the instructor.
R. Beninger

Administration 325b

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 324a*, or permission of the instructor.

A. Philpot

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.

C. Huxley

Administration 340

Entrepreneurship and the Canadian small business. By becoming entrepreneurs, students learn by experiencing the challenges faced by a small business within the Canadian social, economic, political and regulatory environments. Prerequisites: *Administration 201a* and *202b* 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 250* or permission of the instructor. *I.D. 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

Administration 395b

Organizational behaviour in native organizations. Provides an understanding

of individual, group and leadership behaviour in Native organizations within the context of cultural, social, economic and political milieu of the Native community. Topics such as traditional values, cultural ethnocentrism, the concept of time, pride and dignity, traditional economic pursuits will be examined, analyzed and assessed from an organizational behaviour perspective. Prerequisite: *Administration 190*.

D. Newhouse

Economics 350a

Economics of trade unions. (See Economics)

Economics 351b

Labour economics. (See Economics)

Administration 400

Strategic management. The course will focus on the definition and analysis of problems faced by business and government organizations in adapting to changes in their internal and external environments. Students will be expected to draw on their knowledge and skills of such aspects of administration as financial analysis, human relations, marketing, organizational theory and management science, as well as their knowledge of disciplines such as economics, sociology, political studies, and history in developing proposed solutions. *Restricted to fourth year students in the Administrative and Policy Studies Program.*

B. Ahlstrand and staff

Administration 410

Management theory. (Not offered 1990-91)

Administration 480

Reading course. By individual arrangement, normally by May 1 of the preceding academic year. Prerequisite: Permission of the instructor.

Administration 490

Special topic. The following options will be available for 1990-91:

(a) 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 Administrative and Policy Studies Program or permission of the instructor.
D. Torgerson

(b) Women entrepreneurs. From theoretical and practical perspectives, this course will examine issues pertaining to women who both own and manage an enterprise. Prerequisite: Permission of the instructor.
K. Campbell

(c) Management cybernetics. Cybernetics is the science of communication and control. When coupled with integrated electronic tools (e.g., telecommunications, local networks, expert systems, etc.), it offers management a way of organizing for high-speed environments. In this course, students will learn how to diagnose organizational situations from the systems perspective, and to locate innovations in organization design that produce competitive/co-operative advantage in local and global situations. Prerequisite: Permission of the instructor.
D. Beatty

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 program.

Canadian Studies-E. and R.S. 310:

Public policy and the Canadian environment

Canadian Studies 370: Science in Canadian society

Canadian Studies-Cultural Studies 413:

Cultural policy in Canada

Comparative Development-Politics 350:

The political economy of underdevelopment

Comparative Development 400: Development and underdevelopment in newly-industrialized countries

Economics-Canadian Studies 260a:

Canadian economic growth and development I: up to 1929

Economics-Canadian Studies 261b:

Canadian economic growth and development II: after 1929

Economics 301a: Monetary theory

Economics 302b: Monetary institutions and policy

Economics 340: Industrial organization

Geography-Canadian Studies 371a/b:

Urban planning

Geography 380b: Regional economic development

History-Canadian Studies-Politics 301:

Canadian federalism

History-Canadian Studies 308: Business history.

Politics-Canadian Studies 201: Canadian politics

Politics 260: An introduction to political analysis and public policy.

Politics-Canadian Studies 309: Ontario politics

Politics 321: International law and organization.

Politics-Canadian Studies 362: Public policy and administration in Canada.

Politics 420: Foreign policy analysis

Politics-ERS 460: Public policy in comparative perspective.

Sociology 334b: Industrial sociology

Sociology-Canadian Studies 340: Sociology of education

Sociology 480: Comparative social analysis.

Anthropology

Professor and Chair of the Department

J.R. Topic, M.A., PH.D. (HARVARD)

Professor Emeritus

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

Professors

R.S. Hagman, PH.D. (COLUMBIA); P.F.

Healy, B.A. (CALIFORNIA-BERKELEY), M.A.,

PH.D. (HARVARD); H.S. Helmuth, D.SC.,

DR. HABIL. (KIEL); L.J. Hubbell, M.A.,

PH.D. (CALIFORNIA-BERKELEY); J.K. So,

M.S., PH.D. (SUNY, BUFFALO); E.M. Todd,

B.A. (TORONTO), PH.D. (NORTH CAROLINA)

(on leave 1990-91); T.L. Topic, M.A.,

PH.D. (HARVARD); J.M. Vastokas, M.A.

(TORONTO), PH.D. (COLUMBIA)

Associate Professors

C. Hamori-Torok, M.A. (BRITISH COLUMBIA),

B.D. (UNION COLLEGE OF B.C.), PH.D.

(TORONTO) (on leave 1990-91); R.D.

Powell, LIC. EN HISTORIA (CORDOBA),

PH.D. (MCGILL) (Y.A.P. in Ecuador

1990-91); M.J. Tamplin, B.A. (TORONTO),

M.A. (LONDON), PH.D. (ARIZONA) (on leave

Spring Term); R.K. Vastokas, M.A.

(TORONTO), PH.D. (COLUMBIA); B.W. von

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

Assistant Professor

S.M. Jamieson, M.A. (MANITOBA), PH.D.
(WASHINGTON STATE)

Canada Research Fellow

O. Roesch, M.A. (MCMASTER), PH.D.
(TORONTO)

Conjunct Professor

P.L. Storck, PH.D. (WISCONSIN)

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 Ordinary program. Minimum six courses in Anthropology, including

Anthropology 100
200 and
two of 212, 230, 240

Joint-major Ordinary 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

—Students in the fourth quarter of a single-major Honours program are expected to carry five courses, and at least 2½ Anthropology courses in the fourth quarter of a joint-major Honours program.

—To be eligible for admission to the fourth quarter of a single-major Honours program, a student must have obtained standing in the four subfields, namely in *Anthropology 200, 212, 230, and 240.*

—To be eligible for admission to the fourth quarter of a joint-major Honours program, a student must have obtained standing in the requirements for a joint-major Ordinary program in Anthropology.

—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.

—Course selection in any single- or joint-major Honours program including Anthropology must be approved by the department and applications submitted to the department before the March deadline.

—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, or its equivalent in Anthropology, for the Ordinary degree and one additional full reading course, or its equivalent, for the Honours degree.

—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.

—Students in Anthropology should also take note of the full course on evolution offered as *Science 220.*

Anthropology 100

Introductory anthropology. The study of mankind: the evolution of the human body and human culture, the archaeology of the Old World and the New, different languages and ways of life, and the relevance of anthropology in the modern world. Two hours of lecture weekly, fortnightly tutorials.

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

Anthropology 200

Cultural anthropology. A comparative analysis of the dimensions of culture: ideology, economic, political and social organization, and a survey of major approaches to the study of culture. Prerequisite: *Anthropology 100* or *Sociology 100* or permission of the instructor. Two-hour lecture weekly, seminar fortnightly.

B. von Graeve and staff

Anthropology-Native Studies 201
Native societies of Canada. Prerequisite: *Anthropology 100*, *Native Studies 100* or permission of instructor. (Not offered this year.)

Anthropology-Canadian Studies 205
Art, architecture and society. A cross-cultural, thematic approach to the visual arts from the point of view of symbolic anthropology. Themes: art as visual communication, cultural conditions of creativity, artist's role in society, economics and art, politics and art, values. Seminar option a) Canadian art or b) Post-Modernism. No prerequisite. Two-hour lecture weekly, two-hour seminar fortnightly.
J. Vastokas

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. Enrolment may be limited.

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.
P. Healy, S. Jamieson, T. Topic

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. Seminar weekly.
B. von Graeve

Anthropology 230
Introduction to language. An overview of language as an aspect of human culture; non-human vs. human communication; world-wide variations in sounds, word structures, and meanings; language learning; language change and the history of writing. No prerequisite. Two-hour lecture weekly, seminar fortnightly.
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 weekly.
H. Helmuth

Anthropology 301
Peoples and cultures of Africa. Development of mankind in Africa, background of early racial amalgamation, and physical characteristics of the living races of Africa. Also African culture and history before and after European domination. Prerequisite: *Anthropology 100* or permission of instructor. (See *Comparative Development Studies*). (Offered this year and in alternate years.)
O. Roesch

Anthropology 302
Cultures of the Pacific. Prerequisite: *Anthropology 100* or permission of instructor. (See *Comparative Development Studies*) (Not offered this year.)

Anthropology 303
Caribbean societies. Prerequisite: *Anthropology 100*. (Not offered this year.)

Anthropology-Comparative Development 304
Latin America. Examination of ethnic and historical foundations of Latin American society. Problems of modernization with special emphasis on peasant movements and interethnic relations. Prerequisite: *Anthropology 100* or permission of instructor. Lecture, seminar weekly.
B. von Graeve

Anthropology 305
Kinship and social organization. Social structure in non-Western societies with emphasis on kinship and family. New approaches to women's roles, sociology, and kinship-as-politics. Prerequisite: *Anthropology 200* or permission of the instructor. (Offered this year and in alternate years.)
L. Hubbell

Anthropology 307
Political and economic anthropology. A cross-cultural examination of the political and economic institutions of different societies, the concepts of economics and politics; and the nature of dispute settlement, exchange relationships, and political participation. Prerequisite: *Anthropology 200* or permission of

instructor. (See *Comparative Development Studies*) Two-hour seminar weekly. (Offered this year and in alternate years.)
Staff

Anthropology 309

Field method in cultural anthropology. Prerequisite: *Anthropology 200*. (Not offered this year.)

Anthropology 310

Archaeological method and theory. Study of methods used to acquire and interpret archaeological data in the field and laboratory. Prerequisite: *Anthropology 212* or equivalent. Two-hour lecture weekly, lab-seminar weekly.

J. Topic and M. Tamplin

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 P. Healy

Anthropology 312

Old World prehistory. Prerequisite: *Anthropology 212*. (Offered in alternate years but not this year.)

Anthropology 313a

Old World prehistory. Agriculture and urbanism. Cultural evolution from the beginnings of agriculture to the rise of urban civilizations in the Old World. Prerequisite: *Anthropology 212*. (Offered this year and in alternate years.)

M. Tamplin

Anthropology 314

Archaeology, ethnohistory, and ethnography of South America. Prerequisite: *Anthropology 100* or permission of the 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. Prerequisite: *Anthropology 100* or permission of instructor. (Not offered this year.)

Anthropology 330a

Language history. Prerequisite: *Anthropology 230* or permission of the instructor.

(Not offered this year.)

Anthropology 331b

Languages of the world. The origin and diversification of language; the principles of language classification both genealogical and typological; writing systems; linguistic approaches to prehistory; language universals; a survey of languages of the world. Prerequisite: *Anthropology 230* or permission of the instructor. Lecture and seminar weekly. (Offered this year and in alternate years.)

R. Hagman

Anthropology 332a

Language in society. Social variation in language use; bilingualism; methodology; gender and language. Prerequisite: *Anthropology 200* or *230*. Three-hour seminar weekly. (Offered this year and in alternate years.)

L. Hubbell

Anthropology 333a

Language and culture. Prerequisite: *Anthropology 200* or *230*. (Offered in alternate years but not this year.)

Anthropology 334

Linguistic analysis. Prerequisite: *Anthropology 230*. (Not offered this year.)

Anthropology-Biology 340

Primate biology. 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 two-hour seminar in the laboratory fortnightly. (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 fortnightly. (Offered this year and in alternate years.)

H. Helmuth

Anthropology 342

Issues in social biology. Prerequisite: *Anthropology 100* or 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, focusing on theoretical basis; research methodology; biological, ecological and sociocultural factors influencing disease patterns; and cross-cultural difference in medical systems. Prerequisite: *Anthropology 240*. One-hour lecture and two-hour seminar weekly. (Offered this year and in alternate years.)

J. So

Anthropology-Native Studies 350

Art of the Americas. A survey of the art and architecture of the native peoples of North, Central and South America. No prerequisite, but *Anthropology-Canadian Studies 205* recommended. Lecture weekly.

J. Vastokas

Anthropology-Biology 370b

Genetics. (See Biology)

Anthropology 390, 391a, 392b

Reading course. A course designed to pursue special interests, largely through independent study. Details to be arranged in consultation with staff in Anthropology.

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

Anthropology 411

Andean prehistory. A general review of Andean cultural history combined with intensive studies of selected problems in Andean archaeology. Emphasis of the course will vary from year to year. Prerequisite: *Anthropology 212* or permission of instructor. (Offered this year and in alternate years.)

T. Topic and J. 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 the Aztecs, Maya, Olmec and other advanced Indian societies of Mesoamerica. Prerequisite: *Anthropology 212* or

permission of the instructor. Lecture, seminar weekly. (Offered this year and in alternate years.)

P. Healy

Anthropology 413

Prehistory of the Intermediate Area.

Prerequisite: *Anthropology 212* or permission of instructor. (Offered in alternate years, but not this year.)

Anthropology 415

Prehistory of Ontario. A detailed examination of prehistory in Ontario, with particular reference to environmental, chronological, and regional developments in the context of general Northeastern archaeology. Prerequisite: *Anthropology 311* or permission of instructor. Lecture weekly, seminar fortnightly.

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, neo-evolutionism and componential analysis, etc. Prerequisite: *Anthropology 200*. R. Vastokas and staff

Anthropology-Women's Studies 422

Women: an anthropological perspective. A re-evaluation of anthropology's approach to women: biological and evolutionary background, politics, technoeconomics, kinship, ideology, personality, etc. Prerequisite: *Anthropology 200*. Three-hour seminar weekly.

L. Hubbell

Anthropology 423

Culture and communication. Analysis of the effects of culture on patterns of non-verbal communication. Discussion of kinesics, proxemics and paralinguistics. Particular emphasis on visual and film materials as well as ethnographic and documentary film. Prerequisite: *Anthropology 200* or *230* or permission of instructor. Seminar weekly.

R. Vastokas

Anthropology 430

Field methods in linguistics. Prerequisite: *Anthropology 230* and permission of the department. (Offered in alternate years, but not this year.)

Anthropology 432a

Phonetics. A survey of articulatory and acoustic phonetics emphasizing the attainment of practical skills in the recog-

nition and the recording of speech sounds. Prerequisite: *Anthropology 230* or permission of the instructor. Two-hour seminar weekly. (Offered this year and in alternate years.)

R. Hagman

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. The methods of static, spatial and dynamic-functional measurements of the human body. The application of anthropometry in providing better relationships between humans and their technological innovations, i.e. tools, clothing, workspace, sports and medicine. Prerequisite: *Anthropology 240* or permission of instructor. One-hour lecture and two-hour lab session per week. (Offered this year and in alternate years.)

H. Helmuth

Anthropology-Native Studies 450

Native art of Canada. Research seminar in the visual arts of Canada's native peoples. Contemporary art by artists of native ancestry emphasized this year. Prerequisite: *Anthropology-Native Studies 350* and permission of the instructor.

J. Vastokas

Anthropology 490, 491a, 492b

Reading course. A course designed to pursue special interests largely through independent study. Details to be arranged in consultation with staff in Anthropology and proposals to be submitted before registration.

Biochemistry

Program Co-ordinators

Chair of the Department of Biology

M. Berrill, B.Sc. (MCGILL), M.Sc.

(HAWAII), Ph.D. (PRINCETON)

Chair of the Department of Chemistry

A. Rees, M.A., Ph.D. (CAMBRIDGE), M.A. (OXFORD), Ph.D. (LONDON), M.C.I.C.

Professors

See listing of faculty in Biology, Chemistry and Mathematics.

Recommended Ordinary Program

1st Quarter

Biology 150

Chemistry 120, 130

Mathematics 100 or 110

2nd Quarter

Biology 203, 250

Chemistry 200, 210a, 211b, 230b

3rd Quarter

Biology 382 or 382b, 325a, and 326b

Chemistry 330 and one or both of

Chemistry 300 and 310

4th Quarter

Chemistry-Biology 430

Chemistry 490 and three other courses, normally including 492c and 493c, to be approved by the departmental committee.

Notes

—Students who wish to follow a career in Biochemistry are advised to take a single major in Chemistry.

—For more detailed information, see separate Calendar entries for Biology and Chemistry.

Biology

Professor and Chair of the Department

M. Berrill, B.Sc. (MCGILL), M.Sc.

(HAWAII), Ph.D. (PRINCETON)

Professor Emeritus

R.L. Edwards, M.A., D.Phil. (OXON)

Professors

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

T.R. Matthews, B.Sc. (SOUTHAMPTON)

(on leave Fall Term, 1990-91); C.D.

Maxwell, B.Sc. (WALES); C.D. Metcalfe,

B.Sc. (MANITOBA), M.Sc. (NEW

BRUNSWICK), Ph.D. (MCMASTER); J.E.

Nighswander, B.Sc.F. (TORONTO), Ph.D.

(WISCONSIN)

Assistant Professors

E. Nol, B.Sc. (MICHIGAN), M.Sc. (GUELPH),

Ph.D. (TORONTO) (on leave Winter Term,

1990-91); J.F. Sutcliffe, B.Sc.

(WATERLOO), M.Sc., Ph.D. (TORONTO)

Adjunct Faculty

G. Mitchell, B.Sc. (TRENT), A.R.T.

Senior Demonstrator

Dale Buelow, B.Sc. (TRENT), M.Sc.
(TORONTO)

Required Courses

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

*Biology 150, 203 and 250 or
Biology 110, 120 and 203 or
Biology 120, 203 and 250 or
Biology 110, 203 and 250.*

Three other Biology courses at *two-hundred* or higher level of which at least three must be courses given in whole or in part by faculty of the Biology Department.

The fourth quarter of the single-major Honours program will include *Biology 400* and three other appropriate courses or *Biology 490* and four other appropriate courses. Program to be approved by the departmental committee.

Joint-major Honours program. Completion of single-major or joint-major program. The fourth quarter of the joint-major Honours program to be approved by the departmental committee.

Single-major Ordinary program. Minimum six courses in Biology, including:
*Biology 150, 203 and 250 or
Biology 110, 120 and 203 or
Biology 110, 203 and 250 or
Biology 120, 203 and 250.*

Three other Biology courses at two-hundred or higher level of which at least two must be courses given in whole or in part by faculty of the Biology department.

Joint-major Ordinary program. Minimum five courses in Biology, including one of *Biology 100, 110, 120 or 150.*

Four other Biology courses of which at least three must be courses given in whole or in part by faculty of the Biology department.

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.

Recommended Additional Courses

Chemistry 120, 130 (highly recommended)
210a, 230b

Environmental and Resource Science 100
Geography 100

Mathematics 100 or 110

Mathematics-Statistics 150

Physics 100

Computer Science 100

Biochemistry

For a program in biochemistry see the Chemistry section.

Notes

- If fewer than five students enrol in a course the format may be changed.
- All *three-hundred* and *four-hundred* series courses except *Biology 400* 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. Students wishing to register in a *three-hundred* or *four-hundred* series course outside of their year must obtain 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 the department Chair before selecting courses. The departmental committee should be consulted for departures from any of the above programs.
- Charges may be made for field trips in some courses.
- The following courses will require the completion of the Animal Care course; *Biology 396a, 382, 400, 410* (and *390/490*, if applicable.)
- Students intending to take the Graduate Record Examinations (GRE) Advanced Biology Test, required by some Canadian and American Graduate Schools, would be well advised to include the following courses in their program: *Mathematics 100, Chemistry 130, Biology-Environmental and Resource Science 202*, and *Biology 203 and 250.*

Biology 100

General biology. An introduction to current topics of biology, including ecology, genetic engineering, inheritance, biomedicine, forest ecosystems, and animal behaviour. Two lectures and a three-hour laboratory period weekly.

M. Berrill and staff

Biology 150

The biology of organisms. A comparative study of organisms, including their structure, development, physiology, life histories, and phylogenetic relationships. Prerequisite: Grade 13 or OAC Biology or *Biology 100*. Two lectures, three-hour laboratory period weekly, seminar or tutorial every two or three weeks.

C.D. Maxwell and staff

Biology-Environmental and Resource Science 202

Ecology. Relationships of plants and animals to their environment; the study of individuals, populations and communities within various ecosystems. Prerequisite: At least a *one-hundred* level Biology course. Recommended: *Mathematics-Statistics 150*. Two lectures weekly, three-hour laboratory fortnightly and seminar every three or four weeks.

D. Lasenby and staff

Biology 203

Development, physiology and genetics of cells and tissues. Prerequisite: one of *Biology 100, 110, 120* and *150*. Highly recommended *Chemistry 120* or *130*. Two lectures per week; laboratory fortnightly.

R. Jones and staff

Biology-Chemistry 230b

Elementary biochemistry. (See Chemistry)

Biology 250

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. Two lectures per week, one lab every two weeks, seminar or tutorial every two or three weeks.

E. Nol and M. Berrill

Biology-Environmental and Resource Science 303a

Biological techniques. (Not offered this year.)

Biology 305

Limnology. Ecology of freshwater ecosystems. Biology, geochemistry and physics of freshwater lakes, rivers and streams. Prerequisite: *Biology 100* or *150*. Highly recommended: *Biology 202* and *Chemistry 120* or *130*. Lecture, seminar or tutorial weekly; six-hour lab fortnightly; Field trips for which there will be no charge.

D.C. Lasenby

Biology 309a

Biology of insects. An introduction to the diversity of the insect world. Lectures emphasize insect behavior, physiology and anatomy. Labs provide a taxonomic overview of insects. Prerequisite: *Biology 150*. Two lectures, tutorial, three-hour laboratory period weekly. Excludes *Biology 311*.

J. 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 150* and *309a/b* or permission of the instructor. Excludes *Biology 311*. Two lectures, tutorial, three-hour laboratory period weekly.

J. Sutcliffe

Biology 312

Vertebrate zoology. The evolution, structural and functional morphology of the vertebrates. Prerequisite: *Biology 150, 110* or *100*; *Biology 202* recommended. Lecture, three-hour laboratory weekly and tutorial every three weeks.

P.M. Powles

Biology 314a

Fish biology. The biology and ecology of marine and fresh water fishes. Management practice of fisheries. Prerequisites: one of *Biology 100, 110* or *150*; *Biology-Environmental Resource Studies 202*. Recommended: *Mathematics-Statistics 150*. Lecture weekly. Two-hour laboratory fortnightly alternating with second lecture; workshop fortnightly.

P.M. Powles

Biology 321a

Plant ecology. A study of the relationships of plants to one another and to their environment. Prerequisite: *Biology 120* or *150* or permission of instructor. Lecture and three-hour laboratory or field studies weekly; seminar or tutorial fortnightly.

R. Jones

Biology 322

Biology of seed plants. (Not offered this year.)

Biology 323a

Plant pathogens and man. (Not offered this year.)

Biology 324b

Biology of the algae and cyanobacteria. An introduction to these important

groups of plants which are often considered a nuisance but which are also one of the world's important natural resources. Their ecological role in both the marine and freshwater environments will be emphasized as well as their economic importance. Prerequisite: *Biology 120 or 150*. Lecture, three-hour laboratory and seminar or tutorial weekly.

C.D. Maxwell

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: at least one of *Biology 100, 110, 120 or 150* or permission of instructor. Two-hour lecture/tutorial and three-hour laboratory weekly, evenings only. Enrolment will be restricted to 30, and preference will be given to Biology students in 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. Prerequisite: *Biology 325a*. Recommended: *Biology-Chemistry 230b* and *Biology-Anthropology 370b*. Lecture/tutorial and three-hour laboratory weekly, evenings only.

G. Mitchell

Biology 327a

Plant population biology. (Not offered this year.)

Biology-Chemistry 330

General biochemistry. (See Chemistry)

Biology 339a

Wildlife biology. (Not offered this year.)

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 350b

Biogeography. Major patterns of distri-

bution and abundance of animal and plant species as affected by geological, ecological and evolutionary processes. Prerequisites: At least one of *Biology 110, 120, 150 or 250*. Two hours of lectures, one-hour seminar weekly.

C.D. Maxwell

Biology-Anthropology 370b

Genetics. (Not offered this year.)

Biology-Psychology 375a

Principles of the nervous system. (See Psychology)

Biology-Psychology 376b

Neuropsychology. (See Psychology)

Biology 382

General physiology of animals. Prerequisite: *Biology 110 or 150* and Animal Care Course. Recommended: *Chemistry 230b* and *Biology 203*. (Not offered this year.)

Biology-Psychology 386a

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 or 150* and *202 or 250* or permission of instructor and Animal Care Course for those involved in projects using vertebrates. Recommended: *Biology 202* and *Biology 150*. Lecture, film-seminar weekly, tutorial fortnightly, and projects equal to a three-hour laboratory weekly.

M. Berrill

Biology 390, 391a, 392b, 393c

Independent studies in biology. This course provides an opportunity for more intensive or for broader study of a selected topic under the guidance of a faculty member. Enrolment is by permission of the Department. An application form is available from the department secretary and the completed form must be given to the course co-ordinator for approval by the Department. Prerequisites: minimum of 10 full courses. Three must be in Biology with a B standing in at least two full course equivalents in Biology at the two-hundred and three-hundred level.

R. Jones and staff

Biology 399, 396a, 397b, 398c

Special topics in biology.

Biology 397b

General physiology of animals. The general principles governing physio-

logical processes in animals. Pre-requisite: *Biology 110* or *150* and Animal Care Course. Recommended: *Chemistry 230b* and *Biology 203*. Lecture, three-hour laboratory weekly and tutorial or seminar fortnightly.

T.R. Matthews

Biology 400

Research thesis. This research course, in which students will investigate a specific field of interest under the guidance of a faculty member, counts as two credits and double fees are charged. A student wishing to take this course must submit the topic to the departmental committee for approval. Animal Care Course is prerequisite if applicable.

R. Jones and staff

Biology 401

Electron microscopy. The biological applications of light microscopes as well as transmission and scanning electron microscopes. Practical instruction in histological and other techniques that are used in the study of plant and animal tissues. Recommended: At least one of *Biology 100*, *110*, *120* or *150*. Lecture, tutorial, three-hour laboratory weekly. Enrolment will be restricted, and registration will be by written permission of the instructor.

J.E. Nighswander

Biology-Geography-Environmental and Resource Science 402b

Ecology of water pollution. (See Geography)

Biology-Geography-Environmental and Resource Science 403a

Concepts in water pollution. (See Geography)

Biology 404

Marine biology. An introduction to the study of the sea. Compulsory week-long field trips to Jamaica in the Autumn Term and to the East Coast in the Winter Term at cost to student. Prerequisites: *Biology 110* and *120*, (or *150*), *202* and at least one other course in Biology or permission of instructor. Lecture, seminar weekly. Field trips equal about three hours work weekly. Enrolment may be limited.

M. Berrill and staff

Biology 410a

Parasitology. (Not offered this year.)

Biology-Chemistry 430

Advanced biochemistry. (See Chemistry)

Biology-Anthropology 441

Comparative primate anatomy. (See Anthropology) (Not offered this year.)

Biology 490, 491a, 492b, 493c

Independent studies in biology. Similar to *Biology 390* but restricted to students in the fourth quarter of their Honours or Special fourth year program. An eligible student must complete an application form obtained from the department secretary and must return it to the course co-ordinator for approval by the Department.

R. Jones and staff

Canadian Studies

Professor and Chair of the Program

J.H. Wadland, M.A. (WATERLOO), PH.D. (YORK)

Professors Emeriti

G. Roper, M.A., PH.D. (CHICAGO);
A. Wilson, M.A. (DALHOUSIE), PH.D. (TORONTO)

Associate Professor

J.E. Struthers, M.A. (CARLETON), PH.D. (TORONTO) (on leave 1990-91)

Assistant Professor

M. Lacombe, M.A., PH.D. (YORK)

Adjunct Faculty

S.D. Grant, M.A. (TRENT)

Canada Research Fellow

M. McCallum, B.A., M.A., LL.B., PH.D. (TORONTO)

Associated Faculty

Administrative and Policy Studies, I.D. Chapman; *Anthropology*, S.M. Jamieson, J.M. Vastokas; *Comparative Development Studies*, D.R. Morrison; *Economics*, M. Huberman, 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*, R.J.D. Page, T. Whillans; *French*, J.-P. Lapointe, C. Verduyn; *Geography*, W.P. Adams, A.G. Brunger, F.M. Helleiner, J.S. Marsh, G.A. Nader; *History*, B.W. Hodgins, J.N. Jennings, E.H. Jones, P.D.W. McCalla, J. Sangster, S.D. Standen, K. Walden; *Native Studies*, J.S. Milloy; *Philosophy*, J.W. Burbidge; *Political Studies*, R. Campbell, K.R.V. Lyon, R.C. Paehlke, J. Wearing; *Sociology*, D. Clarke, R.A. Lockhart; *Vanier Professor*, T.H.B. Symons.

Required Courses

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.

N.B. Students must have completed at least three courses before enrolling in any Canadian Studies course. Exceptions by permission of the instructor only.

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*, *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*, *Canadian Studies 300* and at least two four-hundred series Canadian Studies courses.

Joint-major Ordinary program. Minimum five courses in Canadian Studies. These courses will include *Canadian Studies 200*, *Canadian Studies 300* and one of *Canadian Studies 250*, *251*, *302*, *303*, *305*, *325* or *390*.

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 and philosophy; settlement and resource development, land policy, conservation and ecology. Lecture weekly; tutorial weekly.

J.H. Wadland

Canadian Studies-Politics 201

Canadian politics. (See Political Studies)

Canadian Studies-Anthropology 205

Art, architecture and society. (See Anthropology)

Canadian Studies-History 221

Modern Ontario: Social, political and economic development in Ontario from Confederation to the present, emphasizing late nineteenth and twentieth century problems. Education, social policy, manufacturing, resource development, northern regionalism, literature and political traditions. Lecture weekly; seminar weekly.

Canadian Studies 230

Canada: Economic policy. (Not offered this year.)

Canadian Studies-History 235

The History of 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 100*, *105*, *110* or by permission of the instructor. Lecture weekly; seminar weekly.

J.-P. Lapointe

Canadian Studies 251

Quebec civilization. (Not offered this year.)

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-English 265

English Canadian Prose. (See English Literature)

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. An interdisciplinary introduction to the study of women in Canada in relation to developing social, economic, technological, political and cultural contexts. Lecture weekly; seminar weekly.

M. Lacombe

Canadian Studies-Women's Studies 280

Canadian women's writing. (See Women's Studies)

Canadian Studies 290

Religion in Canada. (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 weekly.

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. (Not offered this year.)

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. (Not offered this year.)

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

Canadian-American relations since World War II. (See Political Studies)

Canadian Studies-French 325

Théâtre et poésie du Québec. (See Modern Languages and Literatures, French Studies Section)

Canadian Studies-Geography 332 (a/b)

Settlement Geography. (See Geography)

Canadian Studies-Environmental and Resource Studies-Geography 333 (a/b)

Wilderness resources. (See Geography)

Canadian Studies-Sociology 340

Sociology of education. (See Sociology)

Canadian Studies-Environmental and Resource Studies 341

Northern development. (See Environmental and Resource Studies)

Canadian Studies-Anthropology-Native Studies 350

Art of the Americas (See Anthropology)

Canadian Studies 355

English Canadian and Quebec prose literature. (Not offered this year.)

Canadian Studies-Native Studies 360

Native peoples in literature. (Not offered this year.)

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 364 (a/b)

Geography of the Polar regions. (See Geography)

Canadian Studies-English 365

English-Canadian Poetry (See English Literature)

Canadian Studies 370

Science in Canadian society. Historical, economic, and sociological perspectives, distinguishing aspects peculiar to Canada. Science in national, cultural and economic life; the discussion of public policies towards science in Canada. Lecture weekly; tutorial fortnightly.
I.D. Chapman

Canadian Studies-Geography 371 (a/b)

Urban planning. (See Geography)

Canadian Studies 375

Canadian law in historical perspective. After a brief introduction to the Canadian legal system this course focuses on the ways in which Canadians have tried to use law as an instrument for social reform, through an examination of controversial changes in criminal, family, employment and constitutional law in the 20th century. Students will be encouraged to develop assignments based on their own research interests. Lecture weekly, tutorial weekly.
M. McCallum

Canadian Studies-Geography 376 (a/b)

The Urban-Rural fringe. (See Geography)

Canadian Studies-Sociology 386

The social structure of Canada. (See Sociology)

Canadian Studies-French 390

Le roman québécois. (Not offered this year.)

Canadian Studies-Politics 401

Contemporary Canadian problems. (See Political Studies)

Canadian Studies-History 402

The Canadian West. (See History)

Canadian Studies-History 403

Canadian intellectual and cultural history. (See History)

Canadian Studies-History 406

Upper Canada. (Not offered this year.)

Canadian Studies-History 410

Social and political traditions and ideas in the United States and Canada, since 1896. (Not offered this year.)

*Canadian Studies-Cultural Studies 413**The Vanier Seminar*

Cultural policy in Canada. Studies in the formulation and operation of Canadian public policy in the fields of culture, education, research and human rights. Three-hour seminar fortnightly.

Note: this course is open to students in the fourth quarter of their Honours program without prerequisite, and to a limited number of other senior students with permission of the instructor. Interested students should speak to the Chair of the Canadian Studies Program, the Chair of the Cultural Studies Program, the Director of the Administrative and Policy Studies Program or to Professor Symons.

T.H.B. Symons

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. (Not offered this year.)

Canadian Studies-History 430

Urban Canada, 1760-1920. (Not offered this year.)

Canadian Studies-Sociology 445

The media and communications in Canada. (See Sociology)

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. Topic for 1990-91: Canadian historical fiction. The course will explore recurring themes in the historical novel from Richardson's *Wacousta* to the present, emphasizing changing attitudes to both history and fiction. Writers to be studied include Huyghue, De Gaspe, Kirby, Leprohon, Parker, Duncan, Child, MacLennan, Raddall, Moore, Findley, Such, Wiebe, Marlatt, and Bowering. Two-hour seminar weekly.

M. Lacombe

Canadian Studies-History 475

History of everyday life. (See History)

Canadian Studies-History 476

Studies in Canadian labour. An interdisciplinary examination of the Canadian working-class experience in the twentieth century. The transformation of work. Development of the Canadian labour movement, class and politics, women and the work force, immigrant recruitment, social policy.

Canadian Studies-History 477

Studies in Canadian social policy. (Not offered this year.)

Canadian Studies 480, 481a, 482b

Reading course. Special topics, designed to provide an opportunity for more intensive study of particular topics. Open to students in the fourth quarter of the Honours program in Canadian Studies. Regular consultation and direction throughout the academic year. Arrangements to be made through the program Chair.

Canadian Studies 494

Honours thesis, single credit. Arrangements to be made through the program Chair.

Canadian Studies 495

Honours thesis, double credit. Arrangements to be made through program Chair.

Diploma Program in Canadian Studies

The Canadian Studies Program offers a special Diploma for foreign students and others 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 Office of the Registrar, 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 and conferences as part of their curricular activity.

Visas, Fees and Accommodation

All 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 at a special ceremony 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 4 courses and the Canadian Studies Colloquium. *One* course must be selected from *each* of columns A, B and C (for a total of 3 courses):

A Studies in the Social Sciences	B Studies in Regionalism and the Environment	C Studies in Culture
201	220	205
230	250	254
235	251	265
255	300	280
260a (half course)	302	290
261b (half course)	303	325
270	305	350
275	307	360
301	309	365
308	310	390
316	332a/b (half course)	403
322	333a/b (half course)	413
340	341	445
362	361	450
370	364a/b (half course)	465
375	371a/b (half course)	480
386	376a/b (half course)	
401	402	
410	406	
425	415	
430	422	
460	480	
475		
476		
477		
480		

All students *must* enrol in *Canadian Studies 200* 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 per cent or better in order to qualify for the Diploma.

Chemical Physics

Program Co-ordinators

Professor and Chair of the Department of Chemistry

Alun H. Rees, M.A., PH.D. (CAMBRIDGE),
M.A. (OXFORD), PH.D. (LONDON), F.C.I.C.,
Assoc. R.C.S.

*Professor and Chair of the
Department of Physics*

A.J. Slavin, M.SC. (TORONTO), PH.D.
(CAMBRIDGE) (on leave Autumn Term).
Acting Chair (Autumn Term)
P.C. Dawson

Professors

See listing of faculty in Chemistry,
Mathematics and Physics

Ordinary Program

	Chem.	Math.	Physics
1st Qtr	120	110	100
2nd Qtr	200	200	202a
3rd Qtr	300	301	300, 321

plus either *Chemistry 130* or a Physics
course at the *three-hundred* series level.
In the case of a student in the Honours
program continuing to the fourth quarter
of a single major, this course must be in
the discipline of the single major.

Honours Program

For first three quarters see Ordinary pro-
gram. Last quarter, *Chemistry 400* and
Physics 400 plus three other courses in
Chemistry, Mathematics or Physics
which are acceptable to the Chemistry
and Physics departments.

Notes

- For more detailed information, see
separate Calendar entries for
Chemistry and Physics.
- The third and fourth quarter Physics
curriculum will be revised in 1991-92.
Students may obtain a description of
these changes from the Physics
Department.
- Students considering post-graduate
study should consider the program
which follows.
- *Chemistry 120, 130, 200, 240a, 341b,*
300, 320, 400 and 420;
- *Mathematics 110, 200 and 301;*
- *Physics 100, 202a, 211a, 270b, 280b,*
300, 321, 355a, 400 and 420 or 430.

Chemistry

Professor and Chair of the Department
Alun H. Rees, M.A., PH.D. (CAMBRIDGE),
M.A. (OXFORD), PH.D. (LONDON), F.C.I.C.,
Assoc. R.C.S.

Professors Emeriti

Stewart A. Brown, B.S.A. (TORONTO),
M.S., PH.D. (MICHIGAN STATE); Robert A.
Stairs, B.SC. (MCGILL), M.SC. (WESTERN

ONTARIO), PH.D. (CORNELL), F.C.I.C.

Professors

Peter F. Barrett, M.SC. (QUEEN'S), PH.D.
(TORONTO), M.C.I.C.; Errol G. Lewars,
B.SC. (LONDON), PH.D. (TORONTO);
Raymond E. March, B.SC. (LEEDS), PH.D.
(TORONTO), F.C.I.C. (on leave Winter
Term 1991); Keith B. Oldham, PH.D.,
D.SC. (MANCHESTER), F.C.I.C.

Associate Professor

Robert G. Annett, B.SC., PH.D. (WINDSOR)

Assistant Professor

J. Mark Parnis, B.SC., PH.D. (TORONTO)

Conjunct Associate Professor

Alicja M. Zobel, M.SC., PH.D. (WARSAW)

Demonstrators

Huda Al-Haddad, B.SC. (BAGHDAD), PH.D.
(STRATHCLYDE); Eunice Lund-Lucas,
B.SC. (PRINCE EDWARD ISLAND)

Required Courses

The single-major Honours program con-
sists of twenty courses. Minimum eleven
courses in chemistry (of which four must
be *four-hundred* series courses),
including

Chemistry 120
130
200
210a and 211b
300
310
490

Joint-major Honours program. Early
consultation with representatives of both
departments is urged. The normal re-
quirement is a minimum of eight courses
in Chemistry, including *Chemistry 120,*
130, 200, 210a and 211b or 230b; two
of *300, 310, 320, 330 and 240a/341b;*
490 and one other *400-level* course. See
also under Chemical Physics and Bio-
chemistry.

Single-major Ordinary program. Mini-
mum six courses in chemistry, including
Chemistry 120

130
200
210a and 211b
300 or 310

See also under the programs
Biochemistry and Chemical Physics

Joint-major Ordinary program. Minimum
five courses in chemistry, including
Chemistry 120

130
200
210a and 211b or 230b

Special Provisos

- For the purpose of meeting the University's degree requirements, the combination of *Chemistry 240a* and *Chemistry 341b* may be regarded as a full three-hundred series course.
- 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 both *Chemistry 120* and *Chemistry 130* in the first year.
- First year students who wish to take one chemistry course only, and whose principal interest is in Physics or Mathematics, should enrol in *Chemistry 120*.
- First year students who wish to take one chemistry course only, and whose principal interest is in the life sciences, should enrol in *Chemistry 130*.
- Chemistry 120* and *Chemistry 130* proceed at a pace appropriate to students with an O.A.C. in Chemistry or equivalent. 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.
- Students whose primary interest is Biochemistry are advised to major in Chemistry and to include a complementary program in Biology.
- Students who intend to become professional chemists should note that the minimum number of Chemistry courses required for a major program in Chemistry is insufficient to guarantee admission to membership in the Chemical Institute of Canada.
- All students taking one or more Chemistry courses pay a laboratory deposit of \$50. This deposit may be returned wholly or in part depending on breakages incurred.

Chemistry 120

Introduction to inorganic and physical chemistry. Gases, liquids and crystals; atomic theory and valency; redox reactions and electrochemistry; descriptive inorganic chemistry; thermodynamics and kinetics. Experimental work to il-

lustrate concepts in analytical, inorganic and physical chemistry. See Notes. Two lectures weekly; laboratory and problem session in alternate weeks.

P.F. Barrett and R.E. March

Chemistry 130

Introduction to organic and biological chemistry. The chemical basis of life and the fundamental principles that govern it; basic chemical concepts, the periodic table, bonding; hydrocarbons and organic compounds of oxygen and nitrogen; acids and bases; features of biochemical processes. Experimental work to illustrate concepts in analytical, organic and biological chemistry. See Notes. Two lectures weekly; laboratory and tutorial in alternate weeks.

E.G. Lewars

Chemistry 200

Elementary physical chemistry. The kinetic theory of gases; thermodynamics of physical and chemical processes; chemical kinetics; electrochemistry. Prerequisites: *Chemistry 120* and *Mathematics 110* or permission of instructor. First half year: one tutorial and three lectures weekly; second half year: one tutorial or three lectures, and one laboratory weekly.

K.B. Oldham

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. This half course may be followed by either or both *211b* and *230b*. Prerequisite: *Chemistry 130*. Two lectures and laboratory weekly; tutorial to be arranged.

E.G. Lewars

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*. Two lectures and laboratory weekly; tutorials to be arranged by instructor.

A.H. Rees

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*. Lecture weekly; laboratory or tutorial in alternate weeks.

Chemistry 240a

Analytical chemistry. The theory of chemical equilibrium as it applies to analysis; experiments in gravimetric and volumetric analysis and in pH measurements. Prerequisite: *Chemistry 120* or, with the permission of the instructor, *Chemistry 130*. Laboratory weekly; three lectures and one tutorial fortnightly.

J.M. Parnis

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

Chemistry 310

Organic chemistry. A survey of organic chemistry with emphasis on theory and physical aspects, including spectrometry and modern methods of elucidating structures and mechanisms, selected natural products and heterocyclic chemistry. Prerequisite: *Chemistry 211b*. Two lectures or tutorials and one laboratory weekly.

A.H. Rees

Chemistry 320

Inorganic chemistry. Atomic structure and its relation to chemical properties of the elements, valence theory, stereochemistry of inorganic compounds, co-ordination chemistry. Prerequisites: *Chemistry 200* or permission of the instructor. Two lectures or tutorials and one laboratory weekly.

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, with the permission of the instructor, *Chemistry 211b*. Two lectures and laboratory weekly; tutorial or seminar in alternate weeks.

R.G. Annett

Chemistry 341b

Instrumental analysis. The theory and practice of electrical, optical and other physicochemical methods of analysis. Prerequisite: *Chemistry 240a*. Laboratory weekly; three lectures and one tutorial fortnightly.

J.M. Parnis

Four-Hundred Series Courses

Information meetings for students wishing to undertake the fourth quarter of the Honours degree will be arranged early in the Winter Term.

Chemistry 400

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

K.B. Oldham and J.M. Parnis

Chemistry 410

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

E.G. Lewars and A.H. Rees

Chemistry 420

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

P.F. Barrett and J.M. Parnis

Chemistry-Biology 430

Advanced biochemistry. Current concepts in theory and methods of biochemistry. Prerequisite: *Chemistry-Biology 330*. Lecture weekly, tutorial and seminar in alternate weeks.

R.G. Annett

Chemistry 490

Experimental chemistry. Literature survey and practical work, normally including a project, in an area of chemistry according to the student's field of specialization. About eight hours per week. Students should consult with Professor Annett on the selection of supervisor and project. Eligible students who wish to take this course should normally discuss the topic four months prior to entering the fourth quarter of the Honours program.

R.G. Annett

Chemistry 492c

Extended project. Corequisite: *Chemistry 490*.

Chemistry 493c

Extended project. Corequisite: *Chemistry 490*.

Chemistry 499

A reading course on 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.

Classical Studies

Associate Professor and Acting Chair of the Department

David F.R. Page, B.A. (SHEFFIELD)

Professors

Janet P. Bews, B.A. (QUEEN'S), M.A., PH.D. (LONDON); Konrad H. Kinzl, PH.D. (VIENNA); Ian C. Storey, M.A. (TORONTO), M.PHIL. (OXFORD), PH.D. (TORONTO) (on leave 1990-91)

Associate Professors

Roger Crowhurst, M.A., PH.D. (LONDON) (on leave 1990-91); A.M. Young, M.A. (MELBOURNE, TORONTO), PHIL.M. (TORONTO)

The department of classical studies contains three distinct fields. For the purpose of degree regulations the three fields are treated as separate disciplines. Courses are offered towards majors in:

- A. Latin Language and Literature
- B. Greek Language and Literature
- C. Classical Studies (No knowledge of Greek or Latin is required in C. in the Ordinary program.)
 - a. Classical History
 - b. Classical Studies

Required Courses

The single-major Honours program consists of nineteen courses.

- A. Latin Language and Literature: eight courses in Latin, including two at the *four-hundred* level, plus one course in Roman History.
- B. Greek language and literature: eight courses in Greek (only one of which may be on *New Testament* material), including two at the *four-hundred* level, plus one course in Greek History.
- C. a. Classical History: nine courses, including at least one of *Classical History 410* or *420*, *Classical History 490*, at least one *two-hundred* level course in Greek or Latin, and at least four *one-hundred* to *three-hundred* level courses in Classical History, in-

cluding *Classical History 100* and one of *Classical History 201* or *351a/352b*.

- b. Classical Studies: ten courses in Classical Literature, Classical Civilization, Classical History, Ancient Philosophy (offered by the Department of Philosophy), including at least two of *Classical Literature 490*, *Classical Civilization 490*, or *Classical History 410* or *420* or *490*.

Joint-major Honours program.

- A. Latin language and literature: seven courses in Latin, including two at the *four-hundred* level.
- B. Greek language and literature: seven courses in Greek (only one of which may be on *New Testament* material), including two at the *four-hundred* level.
- C. a. Classical History: eight courses, including one of *Classical History 410* or *420*, *Classical History 490*, at least one *two-hundred* level course in Greek or Latin, *Classical History 100* and one of *Classical History 201* or *351a/352b*.
- b. Classical Studies: seven courses in Classical Literature, Classical Civilization, Classical History, Ancient Philosophy (offered by the Department of Philosophy), including at least two of *Classical Literature 490*, *Classical Civilization 490*, or *Classical History 410* or *420* or *490*.

Single-major Ordinary program. At least four courses must be beyond the *one-hundred* level and at least two at the *three-hundred* level:

- A. Latin Language and Literature: six courses, including *Latin 200* and *220*.
- B. Greek Language and Literature: six courses (only one of which may be on *New Testament* material), including *Greek 200* and *220*.
- C. a. Classical History: six courses in Classical History, including *Classical History 100* and one of *Classical History 201* or *351a/352b* (which may include one course in Classical Civilization.)
- b. Classical Studies: seven courses in Classical Literature, Classical Civilization, Classical History, Ancient Philosophy (offered by

the Department of Philosophy); some courses in Greek and Latin may be counted for credit toward a major in Classical Studies.

Joint-major Ordinary program. At least four courses must be beyond the *one-hundred* level and at least one at the *three-hundred* level.

- A. Latin Language and Literature: five courses, including *Latin 200* and *220*.
- B. Greek Language and Literature: five courses (only one of which may be on *New Testament* material), including *Greek 200* and *220*.
- C. a. Classical History: five courses, including *Classical History 100* and one of *Classical History 201* or *351a/352b* (which may include one course in Classical Civilization).
- b. Classical Studies: five courses in Classical Literature, Classical Civilization, Classical History, Ancient Philosophy (offered by the Department of Philosophy); some courses in Latin or Greek may be counted toward a major in Classical Studies.

Special Provisos

- Because the department offers three separate programs, a joint-major program in two of these (Latin; Greek; Classical History or Classical Studies) is permitted under university regulations.
- Students are not limited to a maximum of eight courses within the department, so long as they do not exceed the maximum of eight courses within each discipline.
- Students proposing an Honours program in Classical History or Classical Studies must consult the department during their second year, preferably at the beginning of the year.
- Four-hundred* level courses are normally limited to students in the fourth quarter of the Honours program.
- One course in *New Testament* Greek may be counted for credit toward a major in Greek.
- One of *Classical Literature 100* or *200* may be counted for credit toward a major in English.

Notes

- Students in Classical Studies in the Honours program are strongly advised to take at least one course in Latin or

Greek.

- Students in Classical History or Classical Studies in the Ordinary program should consider taking a course in Latin or Greek.
- The department strongly recommends that students considering graduate studies in Latin, Greek, Classical History or Classical Studies complete an upper year course in a modern language (German, French).

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, and reading of relatively easy selections from prose and verse, republic to silver age. Prerequisite: *Latin 100* or O.A.C. Latin. Three hours weekly, including language study.

J.P. Bews

Latin 220

Myths and legends of the origins of Rome, as illustrated in the works of Livy and Vergil, writers of the Augustan Period. Prerequisite: *Latin 200* or permission of the Department. Three hours a week, including language study.

A.M. Young

Latin 390, 391a, 392b

Reading course in Latin language and literature. Study of an approved topic from one of the major literary forms. In 1990-91, one of the topics will be The Thought of Cicero. Details will be arranged in March of the preceding academic year in consultation with the department. Prerequisite: *Latin 200* or *220*. Three hours weekly, including language study.

Staff

Latin 490

Studies in Latin language and literature. Regular meetings.

Staff

Greek Language and Literature

Greek 100

Elementary Greek. An introduction to the basic elements of ancient Greek. The course provides the fundamental elements 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.

Greek 200

Intermediate Greek. Continuation and completion of classical Attic Greek syntax and grammar, and reading of relatively easy selections from prose and verse (Lysias, *Against Eratosthenes*; Euripides, *Alcestis*; Lucian, *Real History*). Prerequisite: *Greek 100* or O.A.C. Greek. Three hours weekly, including language study.

Greek 220

Epic and tragedy. (Not offered in 1990-91.)

Greek 390, 391a, 392b

Reading course in Greek language and literature. Study of an approved topic from one of the major literary forms. Details will be arranged in March of the preceding academic year in consultation with the department. Prerequisite: *Greek 200* or *220*. Three hours weekly, including language study.

Greek 490

Studies in Greek language and literature.

New Testament Greek

Greek 240

New Testament Greek. (Not offered this year.)

Classical Studies in Translation

Ancient History

Classical History 100

Ancient Greek society and institutions: from the beginnings to the decline of the City States. An introduction to the study of ancient history, illustrated particularly by problems of the period 600 to 323 B.C. (e.g. 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. to A.D. 69. A course studying 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, and administrative, military, economic

and social developments under the Julio-Claudian dynasty. Two lectures weekly, fortnightly tutorial. 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 beyond first year.

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 lectures and seminars. Open only to upper-year Classical History students, except by the permission of the instructor.

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, monarchy, oligarchy, etc. Open only to Classical History students beyond second year, except by permission of the instructor. Two-hour meeting weekly.

K.H. Kinzl

Classical History 331

The Augustan Principate and its origins (44 B.C. to A.D. 14). (Not offered this year.)

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, 391a, 392b

Reading course in classical history. Details will be arranged in March of the preceding academic year in consultation with the department. One topic for 1990-91 will be the Augustan Principate. Open to third- and fourth-year students only. 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 with special emphasis on the age of Pericles. Open to students in the fourth quarter of the Honours program only. Regular meetings. Prerequisite: *Greek 100* or O.A.C. Greek.

K.H. Kinzl

Classical History 420

The Principates of Nerva, Trajan, and Hadrian (A.D. 96 to 138). (Not offered in 1990-91.)

Classical History 490

Reading course in Greek or Roman history. Details will be arranged in March of the preceding academic year in consultation with the department. Open to students in the fourth quarter of the Honours program only. Prerequisite: *Greek 100* or O.A.C. Greek, or *Latin 100* or O.A.C. Latin.

Staff

Classical Literature

Classical Literature 100

Greek drama in English translation: selected plays of the three major Greek tragedians (Aeschylus, Sophokles, Euripides) and of the Greek comedians (Aristophanes, Menander), and also Aristotle's *Poetics*, the first example of literary criticism. Lectures will present also the role of drama within classical Greek society. Two lectures weekly, fortnightly seminar.

Staff

Classical Literature 200

Mythological themes in Greek and Latin literature: gods and demi-gods; the hero, epic and tragic; the quest theme and literary archetypes. Modern theories concerning the nature and function of myth are also examined. Weekly lectures and fortnightly seminars. Open to students beyond first year.

J.P. Bews

Classical Literature 390, 391a, 392b

Reading course in classical literature. Details will be arranged in March of the preceding academic year in consultation with the department. Open to third- and fourth-year students only. Prerequisite: two courses in Classical Studies in Translation, one of which must be at the upper-year level.

Staff

Classical Literature 490

Reading course: Studies in Greek or Latin literature in translation. Details will be arranged in March of the preceding academic year in consultation with the Department. Open to students in the fourth quarter of the Honours program only.

Staff

Classical Civilization

Classical Civilization 201a

A course studying a variety of aspects of ancient civilization (other than history and literature), especially Greek civilization. (Not offered this year.)

Classical Civilization 202b

Aspects of Greek and Roman society: women in Greece and Rome, Greek and Roman slavery, Roman religion. (Not offered this year.)

Classical Civilization 211

Belief and ritual in Greek society. (Not offered this year.)

Classical Civilization 390, 391a, 392b

Reading course in Classical Civilization. Details will be arranged in March of the preceding academic year in consultation with the department. Open to third- and fourth-year students only. Prerequisite: two courses in Classical Studies in Translation, one of which must be at the upper-year level.

Staff

Classical Civilization 490

Reading course: Studies in Greek or Roman civilization in translation. Details will be arranged in March of the preceding academic year in consultation with the Department. Open to students in the fourth quarter of the Honours program only.

Staff

Ancient Philosophy

See *Philosophy 210, 390, 391a, 392b*

Comparative Development Studies

Associate Professor and Chair of the Program

J. Hillman, M.A. (OXFORD), PH.D. (SUNY, BUFFALO)

Professors

P. Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD, MANCHESTER), PH.D. (MAN-

CHESTER); D.R. Morrison, M.A. (SASKATCHEWAN), D. PHIL (SUSSEX)

Associate Professors

C.V. Huxley, B.A. (YORK, ENGLAND).
M.A. (SIMON FRASER), PH.D. (TORONTO);
R.D. Powell, LIC. EN HISTORIA
(CÓRDOBA), PH.D. (MCGILL)

Associated Faculty

Anthropology, D. Roesch, Evelyn M. Todd, B.W. von Graeve; *Economics*, K.S.R. Murthy, P.J. Wylie; *Geography*, J.S. Marsh; *Hispanic Studies*, J.P. González-Martin, T. Noriega; *History*, Patricia Morton, R.J.D. Page; *Native Studies*, M.J. Castellano, D.N. McCaskill

Honorary Professor

L.A. Costa Pinto, LIC.SOC. (BRAZIL)

The Program in Comparative Development Studies 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 on a co-operative basis by members of eight departments: Anthropology, Economics, Geography, History, Native Studies, Modern Languages and Literatures, Political Studies, and Sociology.

An Ordinary or an Honours degree joint-major program in Comparative Development Studies may be taken in conjunction with any other discipline, preferably but not necessarily within one of the participating departments.

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:

*CDS 100**

CDS 200

CDS-Economics 330

(prerequisite: *Economics 101a/b* and *102a/b*)

CDS 300

CDS 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:

*CDS 100**

CDS 200

CDS 300

CDS 400

at least one other course in the *four-hundred* series.

Ordinary joint-major. Minimum five core and support courses, including:

*CDS 100**

CDS 200

CDS 300

* applies only to students entering the program in 1990-91.

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 an Ordinary degree.

Anthropology students: Students undertaking joint-majors in Anthropology and Comparative Development Studies are advised that they may substitute *Anthropology-Comparative Development 221* for one of *Anthropology 212*, *230* or *240* in their Anthropology requirements.

Depending upon their area of interest, students are encouraged to enrol in French or Spanish language courses.

Year Abroad Program

Courses offered in Ibarra, Ecuador in the Year Abroad Program are listed at the end of this section. This program is designed primarily for CDS and Anthropology majors.

Central 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.

Staff

Comparative Development 200

(Not offered this year owing to the introduction of *CDS 100*; next offered

1991-92.)

Comparative Development 250

Technology and Development. (Not offered this year.)

Comparative Development 300

Development analysis. 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 precapitalist, precolonial to colonial and contemporary institutions and the development of political and ideological movements will be analyzed. Two-hour lecture, seminar fortnightly. Prerequisite: *CDS 200* or permission of instructor.

P. Bandyopadhyay

Comparative Development 400

Development and underdevelopment in newly-industrializing countries. A comparative examination of processes of partial industrialization with emphasis on recent trends in certain Asian and Latin American societies. Topics include: changes in the international division of labour, international debt crises, new patterns of employment, the participation of women workers, and the significance of labour and political movements. Two-hour seminar weekly. Prerequisite: *CDS 300* or permission of the instructor.

C.V. Huxley

Comparative Development 421b

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* or permission of the instructor.

Comparative Development-Canadian Studies 460

Canada and the Third World. Canada's relations with developing countries—economic, political and socio-cultural—and Canada's role in North-South issues, especially the debt crisis and structural adjustment, human rights, immigration and refugees, ecologically-sustainable development, Southern Africa and Central America. Also applies theoretical perspectives on comparative and international development to Canada and its place within the global political economy. Two-hour seminar weekly.

Prerequisite: *Canadian Studies 200* or *CDS 200* or permission of the instructor. Open only to students in the fourth quarter of the Honours degree. Enrolment limited to 12.

D.R. Morrison

Comparative Development 499

Special topic: religion and development. An examination of the relationship between religious ideologies and institutions and strategies of development. Religious roots of rebellion. Special emphasis on contemporary religious movements in Islamic societies and Latin America. Prerequisite: *Comparative Development 300* or permission of instructor. Two-hour seminar weekly.

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 304

Latin America. (See Anthropology)

Comparative Development-Economics 330

Economics of developing countries. (See Economics)

Comparative Development-Economics 370a

Comparative economic systems and planning. (See Economics)

Comparative Development-Native Studies 305

Native community development. (See Native Studies)

Comparative Development-Politics 350

The political economy of underdevelopment. (See Politics)

Comparative Development-Environmental and Resource Studies 360

Environment and development. (See Environmental and Resource Studies)

Comparative Development-Sociology 385

Historical sociology. (See Sociology)

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-Economics 431a

International economics of development. (See Economics)

Comparative Development-Politics 440
Political economy and corporate politics. (See Politics)

Comparative Development-Native Studies 482

Indian responses to cultural interaction. (See Native Studies)

Comparative Development 490, 491a, 492b

Special topics in comparative development. Reading course options open only 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.

Comparative Development 495

Honours thesis. A specific scholarly project on a well-defined topic for which double credit will be given.

Support Courses

Anthropology 301: Peoples and cultures of Africa

Anthropology 302: Cultures of the Pacific

Anthropology 303: Caribbean societies

Anthropology 307: Political and economic anthropology

Economics 311a: International trade

Economics 312b: International finance

English 315: Commonwealth literature

E. and R.S. 341: Northern development

Geography 336a/b: Geography of the Caribbean

History 340: Modern imperialism in Africa, 1860-1960

History-Anthropology 345: Slavery in the Americas

Native Studies 200: Politics and the native peoples

Native Studies 381a: Community based research and planning

Native Studies 382a: Community based oral history methods

Native Studies 383b: Community service method

Native Studies 384b: Social survey research method

Native Studies 385b: Program planning and evaluation research

Politics 220: International politics

Politics 240: Comparative politics

Politics-Canadian Studies 305: Politics and society in Quebec

Spanish 326: Contemporary Latin-American novel

Women's Studies 400: Feminist praxis

Year Abroad Program

Normally, in order to participate in this program offered in Ecuador, a student must have *Spanish 100* and high academic standing. In 1990-91 the program will be offered under the direction of Professor R.D. Powell and will include the following courses:

Spanish 201: Intermediate Spanish

Comparative Development 390: Introduction to Quechua

Comparative Development-Anthropology 304: Anthropology of Latin America

Comparative Development 380: Community development

Comparative Development 399: Ecuador seminar

Computer Studies

Professor and Program Chair

James W. Jury, M.Sc., Ph.D. (TORONTO)

Associate Professors

Stephen B. Regoczei, M.Sc. (TORONTO);

Morgan J. Tamplin, B.A. (TORONTO), M.A. (LONDON), Ph.D. (ARIZONA) (on leave Spring Term 1990-91)

Assistant Professor

Marc Green, M.Sc., Ph.D. (NORTHEASTERN)

Conjunct Assistant Professor

C. Baker, B.Sc. (TRENT)

Associated Faculty

Lorine E. McHardy, B.Sc., M.Sc.

(WESTERN ONTARIO); *Geography*, J.G. Cogley; *Mathematics*, C. Carter, D.G. Poole, E.A. Maxwell; *Philosophy*, B. Hodgson, R.M. Neumann; *Psychology*, R.B. Morris

Laboratory Demonstrator

Meredith 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. Also, students in the Program pursue Ordinary 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 seven courses in Computer Studies at the two-hundred level or above of which at least five must be core courses and include:

Computer Studies 202a and 203b
 300a or 301a
 340b
 330
 400

At least two courses must be the four-hundred level. *Computer Studies 330* may be substituted for a four-hundred level course in the fourth quarter of an Honours program.

Joint-major Ordinary program

Minimum five courses in Computer Studies including *Computer Studies 202a* and *Computer Studies 203b* and four 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.

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.

Core Courses

Computer Studies 100

Introduction to computer science. Applications and capabilities of computers. History of computing. Hardware considerations. Algorithmic approaches to problem solving. Software design and structured programming in BASIC. Systems development and analysis. Computer simulation. File structures. Personal computers, telecommunications, local area networks, spreadsheets and data base management software. Two lectures weekly plus periodic workshops. No prerequisites.

J.W. Jury and staff

Computer Studies 202a

Intermediate computer science. Program and system design, FORTRAN 77 and introductory Pascal language programming, compilers, operating systems, applications including simulation and graphics. Prerequisite: *Computer Studies 100* or equivalent. Two lectures weekly plus periodic workshops.

S. Regoczei

Computer Studies 203b

Data processing and file structures through COBOL. 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. Prerequisite: *Computer Studies 100* or equivalent. Two lectures weekly.

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. Prerequisite: *Computer Studies 100* or equivalent. Two lectures and one one-hour laboratory weekly.

M.J. Tamplin and staff

Computer Studies 300a

Information management and data structures. Computer languages (including COBOL) used for information management and list processing. Data structures including stacks, trees, lists, linked lists and rings. File manipulation and data structuring. Information management systems. Prerequisite: *Computer Studies 203b*. Two lectures weekly.

Computer Studies 301a

Scientific programming techniques. Structured programming and logic flow. Design of effective algorithms for scientific application. Languages for scientific computing, advanced FORTRAN and Pascal. Modular programming and library usage; documentation; anti-bugging and debugging techniques. Prerequisite: *Computer Studies 202a*; *Mathematics 100* or *Mathematics 110* or *Mathematics 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. Prerequisite: *Computer Studies 100* or equivalent. Two lectures weekly, seminar fortnightly.

S. Regoczei and staff

Computer Studies 330

Microcomputers, computer architecture, and introduction to operating systems. Introduction to computer hardware configurations and operating system design and operation. Memory management; assembly language; networking; distributed systems. Prerequisites:

Computer Studies 202a or *Computer Studies 203b*. Two lectures weekly, microcomputer laboratory periodically.

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 300a* or *301a*. Two lectures weekly.

Computer Studies 390, 391a, 392b

Special project or 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 340b* and *Computer Studies 300a* or *Computer Studies 301a*. Two lectures weekly.

M. Green and staff

Computer Studies 410

Comparative languages. Addresses programming languages and their structures as intellectual objects. From an assumed base of BASIC, FORTRAN, COBOL 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, C), 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 300a* or *Computer Studies 301a*. Two lectures weekly. Periodic workshops.

M. Green

Computer Studies 430

Advanced operating systems and computer architectures. The course addresses the concepts of computer structures, processor and memory utilization, input-output channels, software and hardware optimization techniques, system protection and security. The course includes study of specific computer architectures. Prerequisite: *Computer Studies 330*. Two lectures weekly, fortnightly tutorial.

J. Jury and staff

Computer Studies 490

Special Topics/Project/Thesis course.

Cross-listed Courses

Computer Studies-Philosophy 240a
Symbolic logic. (See Philosophy)

Computer Studies-Mathematics 241a
Computational algebra with applications. (See Mathematics)

Computer Studies-Mathematics 240b
Numerical analysis. (See Mathematics)

Computer Studies-Mathematics 260
Discrete structures. (See Mathematics)

Computer Studies-Geography 305b
Geographical computer graphics. (See Geography)

Computer Studies-Mathematics 341
Mathematical programming. (See Mathematics)

Computer Studies-Philosophy 341b
Logic and logical theories. (See Philosophy)

Computer Studies-Mathematics-Statistics 351
Linear statistical models. (See Mathematics)

Cultural Studies

Professor of Cultural Studies and English Literature and Chair of the Program

John Fekete, M.A. (MCGILL), PH.D. (CAMBRIDGE)

Professors

Sean Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); David Kettler, A.B., M.A., PH.D. (COLUMBIA) (on leave 1990-91); Ian McLachlan, M.A. (OXFORD); Dawn Smith, M.A., D.PHIL. (OXFORD) (on leave 1990-91); Andrew Wernick, M.A. (CAMBRIDGE, TORONTO)

Assistant Professors

Zsuzsa Baross, B.A. (U.B.C.), M.A. (LONDON), PH.D. (AMSTERDAM); Jonathan Bordo, B.A. (MCGILL, ALBERTA), M.A., M.PHIL., PH.D. (YALE); Joanne Yamaguchi, M.A., PH.D. (COLORADO)

Adjunct Faculty

Molly Blyth, B.A. (TORONTO), M.A. (YORK); Maged el Komos, M.A. (CAIRO); Erik Loder, B.A. (BARD), M.F.A. (PRATT); George Luscombe, LL.D. (YORK)

Associated Faculty

English Literature, Richard Dellamora, Donald F. Theall; *Vanier Professor*, T.H.B. Symons

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) those having a generalist emphasis (*205*, *235*, *250*, *305*, *350*); and (b) those having a specialized focus on culture in one or more media (*211*, *216*, *222*, *225*, *226*, *246*, *270*, *280*, *295*, *311*, *315*, *321*, *322*, *325*, *345*, *346*, *370*, *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 Ordinary 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 Ordinary 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 an Ordinary 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*)

I. McLachlan, Z. Baross, J. Bordo and staff

Cultural Studies 205

Nineteenth century comparative arts. The study of artistic expression in a number of media. Writing, opera, and movements in nineteenth century visual arts (romanticism, impressionism, post-impressionism, and symbolism) will be considered in the context of critical reflection on social and gender relationships. Lecture, seminar weekly.

R. Dellamora

Cultural Studies 211

Drawing. (Not offered this year. Offered Summer 1990 in Oshawa.)

Cultural Studies 216

Approaches to Western art. (Not offered this year.)

Cultural Studies 222

Culture in the novel. (Not offered this year.)

Cultural Studies 225

Oral narrative. A study of the oral tradi-

tion and its genres; chiefly myth, folktale and legend. The course investigates the origins of fictional narrative in oral story forms and values, the cultural context in which stories became literature, the major psychoanalytic and feminist critiques of myth and fairytale, the role of the storyteller and the art of the story. Lecture, seminar weekly.

S. Kane and staff

Cultural Studies 226

Storytelling workshop. (Not offered this year.)

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. Wernick and J. Yamaguchi

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 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. Field trips fee: \$45.

Cultural Studies 280

History and theory of film. Examines the nature and development of cinema as a medium from the early silent period to today. Such topics will be considered as montage, camera movement and film

'language,' the role of actors and directors, the idea of the star, narrative and documentary forms, realism, sound and colour, film as an industry, and the place of movies in society. Films viewed and discussed will range from classical works by such figures as Griffith, Eisenstein, Vertov, Chaplin, and Hitchcock to the contemporary. Weekly lectures, films and seminars.

Z. Baross and J. Yamaguchi

Cultural Studies-English 295

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.

J. Fekete

Cultural Studies 305

Politics and culture. The relationship between art and critical social practice in the context of self-conscious cultural movements in the twentieth century (e.g. futurism, surrealism, expressionism, existentialism). Examines the relationship between 'avant-garde' culture and 'mass' culture; between aesthetic experimentalism and political engagement; between cultural activity and the marketplace. Lecture, seminar weekly.

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 40. Art materials fee: \$60.

E. Loder

Cultural Studies 315

History and theory of modern art. An introduction to the visual arts in Europe and North America from pre-twentieth century antecedents to the present. Pivotal artists such as Cezanne, Matisse, Picasso, Klint, Kandinski, Malevich, Beckmann, Duchamp, Mondrian, Giacometti, de Koonig, Pollock, Warhol, Kiefer and Smithson will be considered along with the movements associated with them. Themes include the emergence of the northern landscape, modern art and technology, contemporary art, commodification and the ruins of the museum. Weekly lectures, tutorials; field trips to museums, galleries and relevant cultural sites. Field trips fee: \$40. (Offered this year and in alternate years.)

J. Bordo

Cultural Studies-English 321

Literature and society. (See English Literature) (Offered this year and in alternate years.)

Cultural Studies 322

Experimental fiction. (Not offered this year. Offered in Summer 1990.)

Cultural Studies-English 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 345

Music in twentieth century industrial society. (Not offered this year. Offered in Summer 1990.)

Cultural Studies 346

Music workshop. Pre- or co-requisite: *Cultural Studies 345*. (Not offered this year.)

Cultural Studies-Sociology 350

Modern social theory. Critical approaches to the study of modern culture and society with special attention to Marx, Simmel, Weber, Mannheim and the Frankfurt School. Topics to be examined include science and substantive

rationality; theories of social constitution; and the problem of modernity in the arts. Seminar weekly.

Z. Baross

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 and Brook, Beckett and Handke will be explored. Students will be expected to attend a number of theatrical performances. Seminar weekly.

I. McLachlan

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.

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.

J. Yamaguchi

Cultural Studies 385

Film workshop. Pre- or co-requisite: *Cultural Studies 280* or *Cultural Studies 381*. Workshop fee: \$50. (Not offered this year. Offered Summer 1990.)

Cultural Studies-English 395

Utopia. (Future fiction). (Not offered this year.)

Cultural Studies 399

Special topics in cultural studies. One such special topic, offered only in Summer 1990, will be Cultures and counter-cultures: images of the third world in first world media.

Cultural Studies 401

Interpretation and the media. (Not offered this year.)

Cultural Studies-Canadian Studies 413

The Vanier Seminar

Cultural policy in Canada. Studies in the formulation and operation of Canadian

public policy in the fields of culture, education, research and human rights. Three-hour seminar fortnightly.

Note: this course is open to students in the fourth quarter of their Honours program without prerequisite, and a limited number of other senior students with permission of the instructor. Interested students should speak to the Chair of the Canadian Studies Program, the Chair of the Cultural Studies Program, the Director of the Administrative and Policy Studies Program or to Professor Symons.

T.H.B. Symons

Cultural Studies-Sociology 440

Special topics in the sociology of culture and knowledge. (See Sociology)

Cultural Studies 450

Current issues in cultural theory. In 1990-91, focuses on the concept of post-modernism 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 theorising, and the cultural centrality of television. Two hour seminars weekly.

A. Wernick

Cultural Studies 455

Technology and modern culture. An examination of technology as a formative and dominating feature of modernity. A pivotal debate between technological instrumentalists (e.g. Marx) and technological holists (e.g. Heidegger) sets the stage for both the reconsideration of the Enlightenment project and the environmentalist critique of Western anthropocentrism. A case approach to technological interventions will also be presented. Weekly seminar, case research, field trip(s). Field trips fee: \$25.

J. Bordo

Cultural Studies 470

Advanced studies in theatre and/or film. Seminar weekly.

J. Yamaguchi

Cultural Studies 495

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 1 of the year prior to the entry to the fourth quarter of the Honours program.

Cultural Studies 499

Special topics in cultural studies. This year several special topics will be offered. For the list of 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 course registration.

Economics

Professor and Chair of the Department

H.M. Kitchen, M.A. (MCMASTER) (on leave Winter Term 1991)

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)

Assistant 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) (on leave 1990-91)

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* to allow registration in upper year Economics courses. With the exception of *Economics 225a* and *Economics*

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 that *Economics 320a* and *Economics 325a* 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 101a/b</i> and <i>102a/b</i>		
200	220b*	400a
201	320a*	401a
225a*	325a	490

plus one other *four-hundred* series credit.

Joint-major Honours program. Minimum seven and one-half courses in Economics, including

<i>Economics 101a/b</i> and <i>102a/b</i>	
200	220b*
201	400a
225a*	401a
	490

plus a further one-half *four-hundred* series course

Single-major Ordinary program. Minimum six courses in Economics, including

<i>Economics 101a/b</i> and <i>102a/b</i>	
200	225a*
201	220b*

Joint-major Ordinary program. Minimum five courses in Economics, including

<i>Economics 101a/b</i> and <i>102a/b</i>	
200	
201	

*indicates that courses of equivalent content can be substituted for *Economics 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 a Grade 13/Ontario Academic course in Mathematics, or equivalent, or a university level Mathematics course.

Economics 101a/b

Introductory microeconomic analysis. Introductory microeconomic analysis deals with methods of analysis and questions of policy relating to the market for individual products or services. The development of market supply and demand analysis, the examination of in-

dustrial structure and organization, and the role of tax and competition policy are given particular emphasis. Selected aspects of international economics, such as the gains from trade and trade barriers are also addressed. Lectures and discussions three hours weekly.

Economics 102a/b

Introductory macroeconomic analysis. Introductory macroeconomic analysis deals with methods of analysis and questions of policy relating to the aggregate economy at the national level. National income analysis, gross domestic product (GDP), employment, unemployment, the price level, inflation, monetary and fiscal policy are given particular emphasis. Selected aspects of international economics such as the balance of payments, exchange rate systems and exchange rate policy are also addressed. Lectures and discussions three hours weekly.

Economics 200

Microeconomic theory and its applications. Comprehensive treatment of the theoretical techniques which economists use to deal with problems of resource allocation and applications of those techniques. Addresses problems of demand and supply, market equilibrium, income distribution and economic welfare. Develops skills necessary for advanced work in economics. Two lectures weekly, seminar fortnightly. *Note:* Students cannot count both *Economics 200* and *Administration 210a* for credit. *J. Muldoon and staff*

Economics 201

Macroeconomic theory and policy. Current theories of national income determination and economic policy as they apply to the problems of employment, unemployment, inflation and economic stability in both open and closed economies. Two lectures weekly, workshop fortnightly. *Note:* Students cannot count both *Economics 201* and *Administration 211b* for credit.

D. Curtis

Economics 220b

Introduction to econometrics. Basic probability and statistical theory. Data Analysis; Statistical Inference; estimation, hypothesis testing. Correlation and Regression as applied to economic relationships and economic data. Prerequisite: *Economics 225a*. Two lectures weekly and seminars fortnightly.

K.R. Murthy

Economics 225a

Introduction to mathematical economics. Economic applications of elementary linear algebra, calculus and optimization theory. Emphasis on graphical analysis and linear equation systems as well as on optimization tools as they apply to the consumer, producer and macroeconomic equilibrium. Three lectures weekly and seminars fortnightly.

M. Arvin

Economics-Canadian Studies 260a

Canadian economic growth and development I: up to 1929. (Not offered this year.)

Economics-Canadian Studies 261b

Canadian economic growth and development II: after 1929. (Not offered this year.)

Economics 301a

Monetary theory. Theories of the demand for money, money in Keynesian and classical macroeconomic models, monetarism and the debate over the use of monetary policy. (Excludes *Economics 301*) Prerequisite: *Economics 201* or *Administration 211b*. Two lectures weekly, seminar or tutorial fortnightly.

D. Curtis

Economics 302b

Monetary institutions and policy. The provision of the money supply, monetary control and the structure of banking in Canada; Canadian monetary policy and the international monetary system since the war. (Excludes *Economics 301*). Two lectures weekly, seminar or tutorial fortnightly.

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 the multinational corporations in international trade and investment. (Excludes *Economics 310*). Two lectures weekly, seminar fortnightly. (See Comparative Development Studies)

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 domestic open economies and the world economy and the evolution, management and reform of the international financial system. (Excludes *Economics 310*). Two lectures weekly, seminar fortnightly. (See Comparative Development Studies)

Economics 316a

Government expenditure analysis. Efficiency criteria will be emphasized in the analysis of public goods, externalities, natural monopolies, cost-benefit analysis and the structure and growth of government expenditures in Canada. (Excludes *Economics 315*). Two lectures weekly, seminar fortnightly.

H. Kitchen

Economics 317b

Canadian tax policy. Efficiency and equity criteria will be emphasized in evaluating personal income taxation, corporate income taxation, commodity taxation, local government taxation and income transfers. (Excludes *Economics 315*). Two lectures weekly, seminar fortnightly.

Economics 320a

Econometrics. Simple and multiple regression models. Problems of estimation and testing of economic relationships under conditions of autocorrelation, errors in variables, etc. Introduction to distributed lags and simultaneous equations. Prerequisite: *Economics 225a, 220b* (or equivalents). Pre/corequisites: *Economics 200, 201*, or permission of the instructor. Two lectures, tutorial weekly.

K.R. Murthy

Economics 325a

Mathematical economics and economic models. Application of simple mathematical tools to the problems in Economics. Use of mathematics in building simple micro- and macro-economic models and their analyses. Prerequisite: *Economics 225a* (or equivalent). Pre/corequisites: *Economics 200, 201* or permission of instructor. Three lectures, seminar weekly.

J. Muldoon

Economics-Comparative Development 330

Economics of developing countries. Historical perspectives of industrialized and developing countries, models of growth and development, examination of sectoral problems of development such as agriculture, industry, trade, etc. Plan-

ning and policies for development and the study of experiences of selected developing countries. Prerequisite: *Economics 101a/b* and *102a/b* or permission of the instructor. Two lectures weekly, seminar fortnightly.

Economics 340

Industrial organization. (Not offered this year.)

Economics 350a

Economics of trade unions. (Not offered this year.)

Economics 351b

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* or *Administration 210a*. Two lectures weekly, seminar fortnightly.

T. Drewes

Economics 360

International economic history, 1750-1950. A survey of European industrialization with special emphasis on the British experience. Other topics include the growth of the international economy in the late 19th century, and the economic problems of the inter-war period. Prerequisite: *Economics 101a/b* and *102a/b* or permission of instructor. Two lectures weekly, seminar fortnightly.

M. Huberman

Economics 365a/b

History of economic thought. (Not offered this year.)

Economics-Comparative Development 370a

Comparative economic systems and planning. (Not offered this year.)

Economics-Environmental and Resource Studies 381a

Environmental economics. The economic basis of environmental problems and the economics of pollution control. The tragedy of the commons, economic incentives in regulatory policy, and cost-benefit analysis applied to environmental policy. Theoretical treatment followed by application to environmental policy. (Excludes *Economics 380*). Two lectures weekly, seminars fortnightly.

T. Drewes

Economics 385b

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; economics and public policy in the provision of health care in Canada. Two lectures weekly, seminar fortnightly.

J. Muldoon

Economics 399, 397b, 398b
Special topics in economic analysis and policy. For 1990-91:

Economics 398b

Applied econometrics. The major objective of this course will be to emphasize the practical approach to econometrics in dealing with empirical problems, using real world data sets, and addressing practical problems such as estimation of demand functions, price, income and elasticities and their implications in model selection. Prerequisite: *Economics 320a*.

K.R. Murthy

Four-hundred Series Courses:

Four-hundred series courses are normally open only to students in the fourth quarter of the Honours program.

Information meetings for prospective fourth quarter students will be arranged early in the Winter Term when *four-hundred series course offerings* will be outlined.

Applications to enter the fourth quarter of the Honours program, complete with individual programs of study, must be submitted before May of the year in which the applicant expects to qualify for an Ordinary Degree. Inquiries and applications should be directed to the Chair of the Department.

Economics 400a

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, 225a, 220b* (or equivalents).

T. Drewes

Economics 401a

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; wealth effects and government budget financing; New Classical Macroeconomics; optimal choices of monetary policy instrument; and demand for money. Prerequisites: *Economics 201, 225a, 220b* (or equivalents).

M. Arvin

Economics 415b

Public sector economics. Topics include a discussion of market failure and the rationale for government intervention; consumer's and producer's surplus and the measurement of welfare change; theory of public goods; externality; cost-benefit analysis; economic effects of taxation; and tax incidences. Lecture, tutorial weekly. Prerequisite: *Economics 200* or permission of the instructor.

Economics 420b

Topics in advanced econometrics. Prerequisite: *Economics 320a* or permission of the instructor.

Economics 425b

Advanced topics in mathematical economics. Classical programming; differential equations; constrained optimization with inequality constraints (linear and non-linear programming); dynamic optimization; optimal control methods; game theory; and economics of uncertainty. Economic applications will be stressed throughout the course. Prerequisite: *Economics 325a* or permission of the instructor.

M. Arvin

Economics-Comparative Development Studies 431a

International economics of development. (Not offered this year.)

Economics 490

Honours essay. 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.

Economics 499, 497a, 498b

Special topics in economic analysis and policy. (Not offered this year.)

Education

Acting Director Trent-Queen's Teacher Education Program

Deborah Berrill, B.A. (NORTHWESTERN), M.A. (TORONTO)

Students contemplating careers in teaching in either elementary or secondary schools are able to undertake a four-year concurrent teacher education program offered by Trent University in co-operation with the Faculty of Education, Queen's University. Students may enrol in programs which qualify them for either a Bachelor of Arts or a Bachelor of Science degree and a Bachelor of Education degree. 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 O.A.C.) specialization. The first three years of the program are conducted at Trent while half of the final year is held at Queen's.

Primary-Junior Program

This program 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 Grade 12 Advanced Level Mathematics
- 1 course in the arts
- 1 course in social science (History, Geography, Politics, Sociology or Anthropology) Native Studies, Canadian Studies, Comparative Development Studies, and Environmental and Resource Studies 200 or 310.

Junior-Intermediate Program

This program 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 program 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 Science. Exceptions are French and Music, 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 or 1 course in Computer Science or a quantitative science if standing is held in Grade 12 Advanced Level Mathematics

Intermediate-Senior Program

This program prepares candidates to teach in the Intermediate division (Grades 7 to 10) and the Senior division (Grades 11 to O.A.C.). Candidates admitted to this program 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 three full courses in the other. Exceptions are French and Music, where five full undergraduate courses must have been 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.

Candidates must have obtained an overall B average on their Arts/Science courses 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 centered. The program is spread over a four-year period and places the students in contact with school children in each of the four 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. Program choices need not be indicated until the final year at Trent.

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 (Ontario Grade 13 or 6 O.A.C.'s or equivalent).
2. Experience Profile (showing candidate's related experience and stressing responsibility, leadership and initiative).
3. General Impression based on:
 - a. Submission of a one-page explanation of the applicant's motivation for becoming a teacher.
 - b. Reference letter from teacher, principal, supervisor or other appropriate person.
 - c. Report of a Trent interviewer where possible.

Required Courses

Year 1

Up to five full B.A. or B.Sc. courses
One introductory Educational half course
30 to 40 hours of observation and aiding in a school

Year 2

Up to five full B.A. or B.Sc. courses
One Educational Skills unit
Equivalent of one half day per week in classrooms

Year 3

Five full B.A. or B.Sc. courses
One or more half courses in Education made up of Foundations and Special Studies courses
Eight half days in classrooms followed by one full week of evaluated teaching
An overall B average on the Arts/Science courses or an Honours degree is required for entry into the final year.

Final Year

Fall semester at Queen's University – Curriculum Studies, Foundations, Special Studies, School Law and Policy, two weeks student teaching for P.J. and J.I. candidates, four weeks student teaching for I.S. candidates.
Winter semester – internship in a school in either the Peterborough, Oshawa-Pickering, or Kingston areas.

English Literature

Chair of the Department
(to be named)

Professors Emeriti

Gordon Roper, M.A., PH.D. (CHICAGO);
James Winny, M.A., PH.D. (CAMBRIDGE)

Professors

R.D. Chambers, B.A. (MCGILL), B.LITT. (OXFORD); 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) (on leave 1990-91); Gordon Johnston, B.A. (TORONTO), M.A. (HARVARD); Sean Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); Ian McLachlan, M.A. (OXFORD); O.S. Mitchell, M.A. (ALBERTA), PH.D. (LONDON) (on leave 1990-91); Elisabeth M. Orsten, M.A. (OXFORD), PH.D. (TORONTO); Michael A. Peterman, A.B. (PRINCETON), M.A., PH.D. (TORONTO) (on leave 1990-91); Zailig Pollock, B.A. (MANITOBA), PH.D. (LONDON); Donald Theall, B.A. (YALE), M.A., PH.D. (TORONTO) (on leave 1990-91); J.M. Treadwell, B.A. (TORONTO), M.A. (CAMBRIDGE); F.B. Tromly, B.A. (GRINNELL), M.A., PH.D. (CHICAGO)

Associate Professors

B.L. Beach, B.A. (ACADIA), M.A. (DALHOUSIE), PH.D. (MCGILL) (on leave 1990-91); M.S. Berkowitz, B.A. (NEW YORK), M.A., PH.D. (MASSACHUSETTS); G.D. Eathorne, B.A. (NEW ZEALAND), M.A. (CANTERBURY); A.G. Fisher, M.A. (SASKATCHEWAN); D.K. Glassco, B.A. (QUEEN'S), M.A. (MELBOURNE); J.E. Neufeld, B.A. (TORONTO), M.A., PH.D. (CHICAGO)

Assistant Professors

Jacqueline Buckman, B.A. (MCGILL), M.A. (SUSSEX), PH.D. (MONTREAL); Kathryn Chittick, M.A. (TORONTO), PH.D. (EDINBURGH); Daniel Fischlin, B.F.A. (MONTREAL), M.A. (CONCORDIA), PH.D. (YORK); Sarah Harasym, M.A. (NEW BRUNSWICK), M.A. (QUEEN'S), PH.D. (ALBERTA); Andrew Taylor, B.A. (QUEEN'S), M.A., PH.D. (TORONTO)

SSHRC Canada Research Fellow

Stephen Brown, B.A., PH.D. (QUEEN'S), B.A., M.A. (WINDSOR)

Note

The curriculum of the department has been designed to accommodate a wide

range of approaches to the study of English Literature. 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 though not necessarily confined to it. 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 1985	Genres, etc.
331	251	201	210	105	115
332	253	202	231	265	120
431	280	300	232	295	200
	351	302	320	340	310
	420	434	321	345	315
	433		435	350	325
			436	365	370
				371	380
				440	390
				450	395
				460	410
					465
					475

Required Courses

The single-major Honours program in English consists of nineteen courses. Minimum ten English courses. At least one course must be chosen from each of the categories listed above, and at least three of the final four courses in the Honours program must normally be *four-hundred series* English courses.

Joint-major Honours program. Minimum eight English courses. Five of these courses are to be chosen from different categories listed above, and at least two of the final four courses in the Honours program must normally be *four-hundred series* English courses. Program to be established in consultation with the department.

Single-major Ordinary program. Minimum six English courses. Five of these

courses are to be chosen from different categories listed above.

Joint-major Ordinary program. Minimum five English courses. Four of these courses are to be chosen from different categories listed above.

Special Provisos

One-hundred series courses: Only one *one-hundred series* English course may be taken by first-year students, 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. Enrolment in each of the *one-hundred series* English courses will be limited to approximately one-third of the total enrolment in all three courses.

Normally, a student will be required to take a first-year 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. *Two-hundred series* courses are considered equivalent to *three-hundred series* courses to satisfy the University 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.

Note:

As one of the optional courses allowed in the major and Honours programs in English, students may take one of the following full or two of the following half-courses: *Canadian Studies* 280, 350, 360; *Classical Literature* 100, 200, 301a, 302b; *Cultural Studies* 205, 222, 225, 270, 322, 370; *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 tutorial, and monthly workshop.
D.K. Glassco and staff

English 115

Studies in English drama. The course introduces students to the study of literature through a critical examination of English drama from the medieval mystery plays to the modern *avant garde*. The plays will be examined from a literary and a theatrical perspective. Writers to be studied include Shakespeare, Jonson, Wycherley, Sheridan, Wilde, Shaw, Williams, Beckett, and Pinter. Weekly lecture and tutorial, and monthly workshop.

F.B. Tromly and staff

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. Authors to be studied include Shakespeare, Milton, Swift, Fielding, Austen, Wordsworth, and Brontë. Weekly lecture and tutorial, and monthly workshop.

Kathryn Chittick and staff

English 200

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 a wide variety of English literary texts. Theories to be studied will include some of: New Criticism, Structuralism, Semiology, Deconstruction, Feminist Theory, Marxism, Psychoanalysis, Reader-Response Criticism, Archetypal Criticism, and New Historicism. Two hours of lectures, workshops, and seminars weekly.

Jacqueline Buckman

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 tutorial. (Offered this year and in alternate years.)

M.S. Berkowitz

English 202

Literature and belief. (Offered in alternate years, but not this year.)

English 210

The Romantics. A study of the major English writers of the Romantic revolution: Blake, Coleridge, Wordsworth, Scott, Austen, Byron, Shelley, and Keats, with some attention to minor figures and to Romantic theories of the imagination. Weekly lecture and tutorial.

A.G. Fisher and staff

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 tutorial. (Offered this year and in alternate years.)

M.S. Berkowitz and staff

English 232

American literature: The Gilded Age. (Offered in alternate years, but not this year.)

English 251

The Renaissance lyric. (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 man, language, and the order of the universe. Writers to be studied include Sidney, Spenser, Marlowe, Shakespeare, Donne, Jonson, and Bacon. Weekly lecture and tutorial.

Daniel Fischlin

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 Callaghan, Davies, Duncan, Haliburton, Kroetsch, Laurence, Leacock, MacLennan, Moodie, Munro, Richler, Ross, and Wiebe. Weekly lecture and tutorial.

Zailig Pollock and staff

English 280

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 tutorial.

F.B. Tromly and staff

English-Cultural Studies 295

Science fiction. (See Cultural Studies)

English 300

Pope and his age. (Offered in alternate years, but not this year.)

English 302

London. Studies in the literature of the Restoration and eighteenth century with particular attention to the city as a major influence upon literary sensibility and literary form. Authors to be studied include Pepys, Defoe, Addison, Steele, Gay, Pope, Fielding, Boswell, and Johnson. Weekly lecture and seminar. (Offered this year and in alternate years.)

R.D. Chambers and 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 tutorial. (Offered this year and in alternate years.)

J. Buckman and S. Harasym

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 tutorial. (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 tutorial. (Offered this year and in alternate years.)

R.J. Dellamora and Kathryn Chittick

English-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.A. Fekete

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; language workshops. (Offered this year and in alternate years.)

E.M. Orsten and Andrew Taylor

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. The course charts the major developments in British fiction in the twentieth century. The focus will be on thematic, technical, and stylistic innovation as a response to an era of unprecedented social change and uncertainty. Writers to be studied include Conrad, Ford, Joyce, Lawrence, Woolf, Forster, Waugh, Huxley, Greene, Rhys, Naipaul, and Gordimer. Weekly lecture and tutorial.

Ian McLachlan

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 tutorial.

English 351

English drama to 1642. (Not offered this year.)

English-Canadian Studies 365

English Canadian poetry. A study of the principal Canadian writers of poetry in English from the nineteenth century to the present day. Writers to be studied include Lampman, Pratt, Klein, Avison, Purdy, Cohen, Atwood, and Ondaatje. Weekly lecture and tutorial. (Offered this year and in alternate years.)
G. Johnston

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, Heller, Malamud, McCullers, Toni Morrison, Salinger, Leslie Silko, Updike, Vonnegut, and Alice Walker. Weekly lecture and tutorial. (Offered this year and in alternate years.)
R.D. Chambers and staff

English-Cultural Studies 380

Narrative literature and film. (Not offered this year.)

English 390

Literature and psychology. (Not offered this year.)

English-Cultural Studies 395

Utopia (Future fiction). (Not offered this year.)

Four-hundred Series Courses:

The fourth quarter of the Honours program may be completed on a full-time or part-time basis. Information meetings for prospective Honours students are held during the Winter Term when the details of next year's *four-hundred* series course offerings are outlined. Applications, including the proposed course of study, should be submitted before May 1 of the year in which the applicant hopes to enter the program. All applications or enquiries should be directed to the Honours Co-ordinator, Professor Gordon Johnston.

Note:

Four-hundred series courses are normally limited to students in the fourth quarter of the Honours programs. However, students may petition the department for permission to enrol in a *four-hundred* series course as part of an Ordinary degree program.

Students entering the fourth quarter must have at least a 70% average in the English courses completed to meet the course and category requirements; students graduating from Honours must have a 70% average or better in their fourth quarter English courses.

English 410

Advanced studies in literary and critical theory. An exploration of problems in literary and critical theory in the context of Anglo-American, structuralist, semiological, hermeneutic, or Marxian models of meaning, communication, and value. Two-hour seminar weekly.
Sarah Harasym

English 420

Advanced studies in Shakespeare. Topic 1 for 1990-91: Shakespeare's responses to Marlowe. The course examines Shakespeare's career as playwright and poet by focussing on his varied responses to the work of Christopher Marlowe. The applicability to these writers of various models of literary "influence" and "intertextuality" will be considered. Two-hour seminar weekly.
F.B. Tromly

Topic 2 for 1990-91: Shakespeare's diversity. The course will explore the diversity of interests in Shakespeare, with reference to three topics: Shakespeare's view of history in the second tetralogy, the complexities of love as presented in several of the problem plays, and *Hamlet*. Two-hour seminar weekly.

A.G. Fisher

English 431

Studies in Old English language and literature. The course provides a working knowledge of the language through basic readings, and then goes on to cover more advanced prose and poetry. Students will be able to choose selections from a text providing wide readings. Two-hour seminar weekly.
E.M. Orsten

English 433

Advanced studies in Renaissance literature. Topic for 1990-91: Renaissance critical theory and practice. The course examines a number of Renaissance critical texts in terms of their theoretical, cultural, and philosophical relationships with such poets as Sidney, Shakespeare, Donne, and Herbert. The aim of the course will be to develop a

broad historical and cultural understanding of the literary life of the English Renaissance. Two-hour seminar weekly.

Daniel Fischlin

English 434

Advanced studies in Restoration and eighteenth-century literature. Topic for 1990-91: The eighteenth-century novel. The course will explore the rise and development of the novel form in eighteenth-century England with particular attention to the literary and socio-historical context of the new form. Study will centre on the novels of Defoe, Richardson, Fielding, Sterne, and Austen, but some attention will also be paid to the work of Mackenzie, Burney, and Edgeworth. Two-hour seminar weekly.

R.D. Chambers

English 435

Advanced studies in the Romantics. Topics for 1990-91: Seduction and the novel. The course examines various forms of narrative including the picaresque, pornography, the epistolary novel, the novel of sensibility, libretti, memoirs, and letters. Special emphasis will be given to the male and female psychology of love with Julia Kristeva's theories in mind. Figures to be studied: Aphra Behn, Mary Manley, Defoe, Richardson, John Cleland, Eliza Haywood, Fielding, Frances Sheridan, Casanova, Lady Mary Wortley Montagu, and Mozart. Two-hour seminar weekly.

Stephen Brown

English 436

Advanced studies in Victorian literature. Topic for 1990-91: George Eliot and Henry James. A study of the English and American novel in the nineteenth century. The two authors looked at will be George Eliot and Henry James, both as novelists and as critics of the novel. Works to be studied include *Adam Bede*, *Felix Holt*, *Middlemarch*, *Daniel Deronda*, *Roderick Hudson*, *The Portrait of a Lady*, *Princess Casamassima*, and *Wings of the Dove*. Two-hour seminar weekly.

Kathryn Chittick

English 440

Advanced studies in modern poetry. Topic for 1990-91: to be announced.

English 450

Advanced studies in modern drama. Topic for 1990-91: to be announced.

English 460

Advanced studies in modern fiction. Topic for 1990-91: to be announced.

G.D. Eathorne

English-Canadian Studies 465

Advanced studies in Canadian literature. Topic for 1990-91: Canadian historical fiction. The course will explore recurring themes in the historical novel from Richardson's *Wacousta* to the present, emphasizing changing attitudes to both history and fiction. Writers to be studied include De Gaspé, Kirby, Duncan, Child, MacLennan, Raddall, Moore, Findley, Such, Wiebe, Marlatt, and Bowering. Two-hour seminar weekly.

M. Lacombe

English 475

Advanced studies in American literature. Topic for 1990-91: to be announced.

English 490

Special author or topic.

Topic 1 (category E) for 1990-91: Literature of the Great War. The course focuses on some memoirs, novels and poetry that come out of World War I. Among the various writers to be studied are: H.G. Wells, F.M. Ford, D.H. Lawrence, Richard Aldington, S. Sassoon, E.M. Remarque, R. Graves, F. Manning, Wilfred Owen, Rebecca West, Vera Brittain, and D.H. Lawrence. Two-hour seminar weekly.

D.K. Glassco

Topic 2 (category F) for 1990-91: Epic: Homer, Spenser, Joyce. A study of the *Odyssey*, *The Faerie Queene*, and *Ulysses* in the context of the epic tradition from its origins in Homer to its parody by Joyce. Two-hour seminar weekly.

Sean Kane

Topic 3 (category F) for 1990-91: History of the Book: An introduction to historical bibliography, the production, dissemination, and consumption of print in the English speaking world from the 15th to 19th centuries. Topics to be studied will include literacy and reading habits, the development of printing and bookselling, press licensing and censorship, copyright and piracy, book collecting and the development of libraries. Two-hour seminar weekly.

J.M. Treadwell

Topic 4 (category A) for 1990-91: The creation of the medieval reader. A study of medieval reading practice

focussing particularly on the development of silent private reading in the age of Chaucer and its implications for our understanding of his poetry and that of his contemporaries.

Andrew Taylor

English 491

Research study. 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 Calendar deadlines for registration in courses apply to *English 491*.

English 495

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 department deadline for a thesis abstract and bibliography (signed by the thesis supervisor) is May 1 of the student's third year.

Environmental and Resource Studies

Associate Professor and Chair of the Program

Thomas Whillans, B.A. (GUELPH), M.Sc., PH.D. (TORONTO)

Professors

C. Carter, PH.D. (LONDON); R.C. Paehlke, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH), PH.D. (BRITISH COLUMBIA); R.J.D. Page, M.A. (QUEEN'S), D.PHIL. (OXFORD); M.L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO) (on leave 1990-91)

Associate Professors

Douglas Evans, B.Sc. (TORONTO), PH.D. (MCGILL); M. Havas, B.Sc., PH.D. (TORONTO); C.D. Metcalfe, B.Sc. (MANITOBA), M.Sc. (NEW BRUNSWICK), PH.D. (MCMASTER)

Assistant Professor

M.G. Fox, B.A. (PENNSYLVANIA), M.E.DES. (CALGARY), PH.D. (QUEEN'S)

Conjunct Associate Professor

B.A. Heidenreich, B.A. (YORK), M.A. (MCMASTER), M.I.A. (COLUMBIA)

Associated Faculty

Biology, E. Nol; *Canadian Studies*, J.H. Wadland; *Chemistry*, K.B. Oldham;

Economics, T. Drewes; *Geography*, J.S. Marsh; *Mathematics*, T.E.W. Nind; *Physics*, A.J. Slavin, R.G. Johnson

Demonstrator/Technician

William A.C. Gibson, B.Sc., M.Sc. (TRENT)

The Environmental and Resource Studies Program is an interdisciplinary program offered by Environmental and Resource Studies (ERS) in cooperation with thirteen other University departments and programs. It provides an opportunity to take a single or joint honours, or a single or joint ordinary B.A. (Environmental Studies) or B.Sc. (Environmental Science) degree, consisting of ERS core courses and departmentally-offered support courses. Students should refer to the program handbook for suggested coherent programs combining ERS with other disciplines, and to the individual departmental course listings to ensure that they have the necessary prerequisites for any support courses they may wish to take for ERS credit.

Degree Requirements

Bachelor of Arts/Science

The single-major Honours program consists of twenty courses. Minimum of ten credits in ERS, including two *four-hundred* level and two *three- or four-hundred* level courses in the fourth quarter. The honours year program will normally involve some interaction between the natural and social sciences, and include one science course in a B.A. program, and one Arts Course in a B.Sc. program. One approved support course may be taken for ERS credit in the fourth quarter of the Honours program in addition to any support course(s) credited towards an ordinary degree.

Joint-major Honours program. Minimum of eight ERS credits, including one *four-hundred* level and one approved *three- or four-hundred* level in the fourth quarter.

All honours students are required to attend and participate in the ERS honours seminars, held approximately monthly.

Students intending to complete the fourth quarter of the Honours program should consult the Program Chair as soon as possible in the Winter Term of the preceding academic year.

Bachelor of Arts

Single-major Ordinary program.

Minimum of six credits in ERS, plus one listed support course. The ERS credits must include *ERS 100*, *200* or *250*; two *three-hundred* level courses.

Bachelor of Science

Single-major Ordinary program.

Minimum of six credits in ERS, including at least four science credits, plus one listed support course. The ERS credits must include *ERS 100*; one of *202*, *220*, *230*; two *three-hundred* level courses.

Bachelor of Arts

Joint-major Ordinary program. Minimum of five credits in ERS, including *ERS 100*, *200* or *250*; two *three-hundred* level courses.

Bachelor of Science

Joint-major Ordinary program. Minimum of five credits in ERS, including *ERS 100*; one of *202*, *220* or *230*; two other science courses; two *three-hundred* level courses.

For all ERS major programs one listed support course may be taken as an ERS credit.

For a B.A. single- or joint-major program, one of *Economics 100*, *Geography 101*, *Philosophy 105* or *Mathematics-Statistics 150* must be taken.

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.

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. *T.H. Whillans and staff*

Environmental and Resource Studies-Canadian Studies 200

Canada: The land. (See Canadian Studies)

Environment 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 permission of instructor. 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 permission of the instructor. Two lectures weekly, one-hour seminar fortnightly. Occasional field trips.

C. Carter

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: *ERS 100* or permission of the instructor. One and one-half hour lecture weekly, seminar/workshop fortnightly.

M.G. Fox and staff

Environmental and Resource Studies 300-

Environmental and Resource Science 301
Research topics. A research course on a specific project. This course is normally open only to ERS major students with two B credits (or better) in ERS courses. Emphasis is on projects which involve some interaction between the natural and social sciences such as solar energy, occupational health, pesticides. Appropriate prerequisites will apply. Arrangements must be made, preferably in the spring, with the program office and the faculty member involved before enrolment.

Two options for 1990-91 are as follows:

Environmental and Resource Studies 300

Risk assessment. 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. Three hours of lecture and seminar weekly. Staff

Environmental and Resource Science 301
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: *ERS-Biology 202* or permission of instructor. Four hours of lecture, seminar, laboratory weekly.

M.G. Fox

Environmental and Resource Science-Biology 303a
Biological techniques. (See Biology)

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. Weekly lecture and seminar. Second year students wishing to take the course should seek permission of the instructor.

R. Paehlke

Environmental and Resource Science 312
Introduction to nuclear science. Prerequisite: *ERS 220* or *Physics 100* or permission of the instructor. (Offered in alternate years, but not in 1990-91.)

Environmental and Resource Science 320
Management of forest ecosystems. Prerequisite: *Biology-Environmental and Resource Science 202* or permission of the instructor. (Not offered in 1990-91.)

Environmental and Resource Studies 330
Environmental ethics. A critical examination of issues arising from man's interaction with his 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 man's responsibility to future genera-

tions. 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.

Staff

Environmental and Resource Studies-Canadian Studies-Geography 333a
Wilderness resources. (See Geography) (Not offered in 1990-91.)

Environmental and Resource Science-Canadian Studies 341

Northern development: a case study in environmental impact assessment. An interdisciplinary study of the biological, geotechnical, social economic and political aspects of northern mining, oil exploration, pipelines, LNG tankers, etc. and their relationship to the environment. Prerequisite: Open only to students in the third or fourth quarter of *ERS* or Canadian Studies single- or joint-major programs. Prerequisite: *ERS 100*. One hour lecture weekly, two hours of seminar fortnightly.

R.J.D. Page

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: *ERS-Biology 202* or *ERS 220* or *ERS 250* with permission of the instructor. Two-hour lecture weekly, two or three hour field trips or workshop weekly.

T.H. Whillans

Environmental and Resource Studies-Comparative Development Studies 360
Environment and development. This course examines the relationship between economic development and its impact on the global environment. It includes an analysis of the legal and policy options currently being implemented or proposed to halt environmental degradation at international, national and community levels. Issues explored include agriculture, food policy and land use; deforestation; energy policy; export of hazardous products; industrial development; militarization and its relationship to environmental degradation. Particular

attention is paid to the relationship between the environmental destruction and the international political/economic system, and to the impact of developed-country institutions and decisions. Co-requisite for CDS majors: *CDS 300*; Prerequisite for ERS single- or joint-majors: *ERS 250* or permission of the instructor. Three-hour lecture/workshop weekly.

Environmental and Resource Studies-Economics 381a

Environmental economics. (See Economics)

Environmental and Resource Science 390

Aquatic toxicology. The course will examine the toxicological impact of aquatic contaminants, the basis of toxicity testing for acute and chronic effects, as well as the uptake and excretion of contaminants in aquatic organisms. Other sections include the toxic effects of lake acidification, and a discussion of the occurrence and detection of mutagens/carcinogens in the aquatic environment and drinking water. All students taking *ERS 390* are required to take the Animal Care course. Prerequisites: *Biology 100* and *ERS 220*. It is strongly recommended that students have taken *Biology-Chemistry 230b*, and *Chemistry 210a*. Two-hour lecture weekly; labs on alternating weeks.

C.D. Metcalfe

Environmental and Resource Studies 400-

Environmental and Resource Science 401

Thesis: This is a major research project, normally combining one credit for Environmental and Resource Studies and one for the other discipline in a joint-major. With prior permission from the program chair, it may count as two credits for Environmental and Resource Studies. This project course is open only to students in the fourth quarter of the ERS Honours program and arrangements must be made with the program chair in the Spring before entering the fourth quarter. Students are required to attend a regularly scheduled two-hour workshop in which techniques and approaches to thesis research are presented and discussed.

Environmental and Resource Science-Biology-Geography 402b

Ecology of water pollution. (See Geography)

Environmental and Resource Science-Biology-Geography 403a

Concepts in water pollution. (See Geography)

Environmental and Resource Science 412a

Environmental carcinogenesis. This course will be an analysis of the mechanisms and factors involved in the development of human cancer, as it relates to the environment. Thus, we will examine environmental carcinogenesis as it relates to exposure to chemical and physical agents, as well as carcinogenesis related to "lifestyle" 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. Prerequisites: *ERS 220* and *Biology 100*. *Biology 203* is highly recommended. Two-hour lecture weekly, workshop fortnightly.

C.D. Metcalfe

Environmental and Resource Studies-Politics 460

Public policy. (See Political Studies)

Environmental and Resource Studies 480-

Environmental and Resource Science 481

This is a special topics course or half-course in Environmental and Resource Studies-Science to be arranged through application to the Environmental and Resource Studies Chair.

One option in 1990-91 will be an experimental 480 course offered in bioregionalism that will address sensitive relationships between communities and their ecological surroundings. It will explore the new and related field of planning through intensive case history analysis of a developing bioregion in Ontario. Two-hour workshop fortnightly, occasional field trip. Students wishing to take this option should contact Professors Wadland or Whillans.

Support Courses

Arts

Administration 410: Management theory

Canadian Studies 370: Science Policy

Comparative Development 250:

Technology and development

Comparative Development 400: Newly

industrialized countries

Computer Studies 100 or *202a/203b*

Economics 101a/b, 102a/b

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: Economics of developing countries

English-Cultural Studies 395: Utopia (Future fiction)
Geography 101:
Geography 270: Urban geography
Geography 303a: Statistical applications in geography
Geography 335a: Geography of future environments
Mathematics-Statistics 150:
Native Studies 200: Politics and the native peoples
Native Studies-Canadian Studies 360: Native peoples in literature
Philosophy 105: Practical reasoning

Science

Biology 100, 150
Biology 305: Limnology
Biology 314a: Fish
Biology 321a: Plant ecology
Biology 339a: Wildlife
Biology 350b: Biogeography
Chemistry 120 or 130
Chemistry 210a/230b: Organic, biochemistry
Chemistry 240a: Analytical chemistry
Chemistry 341b: Instrumental analysis
Computer Studies 100 or 202a/203b: Introduction
Computer Studies-Math 240b/241a: Numerical methods
Geography 356a: Pedology
Geography 245: Climatology
Geography 341a/b: Climatic change
Mathematics 110: Calculus
Mathematics-Stats 150: Elementary statistics
Mathematics-Computer Studies 351: Linear statistical models
Physics 100: Elementary physics

Four-hundred Series

Approval may be given for other courses, not in the above lists, to be taken as support courses in a single major honours program.

Geography

Professor of Geography and Chair of the Department

F.M. Helleiner, M.A., PH.D. (WESTERN ONTARIO)

Professors

W.P. Adams, B.A. (SHEFFIELD), M.SC., PH.D. (MCGILL) (on leave); A.G. Brunger, B.SC. (SOUTHAMPTON), M.SC. (ALBERTA),

PH.D. (WESTERN ONTARIO); J.G. Cogley, M.A. (OXFORD), M.SC., PH.D. (MCMASTER); J.S. Marsh, B.A. (READING), M.SC. (ALBERTA), PH.D. (CALGARY) (on leave Winter Term 1991); G.A. Nader, B.A. (LONDON), PH.D. (DURHAM); C.H. Taylor, M.A. (CANTERBURY), PH.D. (MCGILL)

Associate Professor

J.M. Buttle, B.A. (TORONTO), PH.D. (SOUTHAMPTON)

Assistant Professors

K.B. Beesley, B.E.S., PH.D. (WATERLOO); P.M. Laffleur, B.SC. (BRANDON), M.SC. (TRENT), PH.D. (MCMASTER); C.L. McKenna Neuman, M.SC. (GUELPH), PH.D. (QUEEN'S)

Adjunct Faculty

S. Watts, B.SC. (QUEEN'S), M.S. (NEBRASKA), PH.D. (SYDNEY)

Technician/Demonstrator

M.A. Ecclestone, B.SC. (TRENT), M.SC. (GUELPH)

Demonstrator

P.J. Doran, B.SC. (TRENT)

Required Courses

The single-major Honours program consists of twenty courses. Minimum ten courses in Geography, including

Geography 101
 201
 one of 220, 245, 250, 270
 301a/b
 303a
 400 or 495

Highly recommended: *Geography 390a/b* and *Geography 410* and *Mathematics-Statistics 150*.

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

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

Single-major Ordinary program. Minimum six courses in Geography, including

Geography 101
 201
 one of 220, 245, 250, 270

Highly recommended: *Geography 301a/b* and *Geography 303a* and *Geography 390a/b* and *Mathematics-Statistics 150*.

Joint-major Ordinary 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*

Recommended Courses

The attention of students in Geography is drawn to *Science 240* (Geology), *Mathematics 100*, *Philosophy 105* and *Computer Studies 100, 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. The Department of Geography intends to develop more formal links with these programs. *Geography 303a* and *305b* are appropriate preparatory courses for the Fleming programs.

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 A.G. Brunger

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.

C.L. McKenna Neuman

Geography 220

Human geography. A survey of the processes which give rise to patterns in the human organization of space at the international, national, and regional levels. Specific topics include the location, size, and function of urban places, trade, transportation, population, diffusion of innovations, behavioural studies, optimizing models, resources, agriculture, manufacturing, service activities, and retail location. Prerequisite: *Geography 101* or permission of instructor. Lecture and tutorial/laboratory weekly.

A.G. Brunger and K.B. Beesley

Geography 231a

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. Prerequisite: *Geography 101*.

J.S. Marsh

Science 240

Geology. (See Science)

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*. Three hours of lectures, laboratories and seminars per week, and field work.

P.M. Lafleur

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*. Three hours weekly; lectures, laboratories, and field work.

J.G. Cogley

Geography 270

Urban geography. The location, size, function and spacing of cities at national and regional levels; the historical development of the Canadian urban system. The internal organization of cities; social and economic patterns and processes within cities. Prerequisites: *Geography*

101 or *Economics 101a/b* and *102a/b* or *Sociology 100*.

K.B. Beesley

Geography 301b

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 geography in relation to philosophy of science and history; ethical issues, academic and social prejudice in geographical studies; radical geography. Prerequisite: *Geography 201*.

A.G. Brunger and staff

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*.

G.A. Nader

Geography-Computer Studies 305b

Geographical computer graphics. Display and interactive analysis of sets of spatially-distributed data, including: graphics devices and principles of device control; construction of symbols, and of graphs such as histograms and scattergrams; data presentation by mapping, contouring and three-dimensional display; shading and other aspects of image geometry; geographical data-bases. Prerequisites: *Geography 201* or an equivalent methodological course; *Computer Studies 202a*.

J.G. Cogley

Geography 330

Historical geography. Prerequisite: *Geography 101*. (Offered in alternate years, but not this year.)

Geography-Canadian Studies 332a

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 101* and either *220* or *270*; or either *220* or *270* corequisite. Lecture

and tutorial or laboratory weekly, field work. (Offered this year and in alternate years.)

A.G. Brunger

Geography-Canadian Studies-Environmental and Resource Studies 333a/b

Wilderness resources. Prerequisite: *Geography 201* or *Geography 234a* or *Environmental and Resource Studies 200* or *Environmental and Resource Studies 250*. (Offered in alternate years, but not this year.)

Geography 335a/b

Geography of future environments. Prerequisite: *Geography 201*. (Not offered this year.)

Geography 336a/b

Development geography of the Caribbean. Prerequisite: *Geography 101*. (Not offered this year.)

Geography 337a/b

Recreation geography issues. 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 man-induced. 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 hydro-meteorological processes. Treatment of falling snow, snowcover, lake ice, glacier ice. Pre- or co-requisite: *Geography 245*. One lecture per week, one seminar per week, several days of field work. (Offered this year and in alternate years.)

P.M. Lafleur

Geography 351a/b

Glacial and Quaternary geomorphology. Prerequisite: *Geography 250* or *Science 240*. (Offered in alternate years, but not this year.)

Geography 353a/b

Hydrology. Prerequisite: *Geography 245* or permission of instructor. (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; man's impact on river morphology.

Prerequisite: *Geography 250* or *Science 240* or permission of instructor. Three hours of lectures, tutorials and laboratories weekly, field work. (Offered this year and in alternate years.)

J.M. Buttle

Geography 355a/b

Introduction to groundwater movement.

Prerequisites: *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 *Science 240* or permission of instructor. Four hours weekly; lectures, laboratories and field work. (Offered this year and in alternate years.)

J.M. Buttle

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.

F.M. Helleiner

Geography-Canadian Studies 364b

Geography of the polar regions. Study of selected aspects of the polar regions with considerable reference to northern Canada but with the deliberate intention of developing comparisons between it and other parts of the polar regions. Prerequisite: *Geography 101* or permission of instructor. Two lecture hours, one seminar per week. (Offered this year and in alternate years.)

C.L. McKenna Neuman

Geography-Canadian Studies 371a/b

Urban planning. Prerequisites: *Geography 101* and *270* or *270* co-

requisite. (Offered in alternate years, but not this year.)

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 100* or *Sociology 100*. Lecture and tutorial weekly. (Offered this year and in alternate years.)

K.B. Beesley

Geography 380a/b

Regional economic development. Prerequisite: *Geography 101* or permission of instructor. (Offered in alternate years, but not this year.)

Geography 390a

Field course in geography. This course is recommended for all Geography majors, and may be taken in the third or fourth year. It involves an extended period during the Fall Reading Break in the field area with extensive preparation and follow-up. Prerequisite: *Geography 201*. One lecture, or seminar per week. Minimum of six days in the field at cost to student.

J.S. Marsh

Geography 395, 392a, 393b, 394c

Reading course. Prerequisite: *Geography 101*.

Geography 399, 396a, 397b, 398c

Special topic in geography.

Geography 400

Honours thesis. This is the culmination of the Honours Degree in Geography. Students will engage in a major research project entailing periodic meetings with faculty. Students taking this course must obtain full details of it and begin preparation prior to entering the fourth quarter of the Honours program. Prerequisites: *Geography 301a/b, 303a*. *F.M. Helleiner and staff*

Geography-Biology-Environmental and Resource Science 402b

Ecology of water pollution. Applied aspects of water pollution. Special emphasis will be placed on individual projects. Prerequisites: *Geography 101, Biology-ERS 202, Geography-Biology-ERS 403a*, or permission of instructor. Recommended: *Chemistry 120* or *130*;

Biology 305; Geography 353a. Tutorial, seminar weekly. There is a possibility that this course and the following one will be combined into a full-year course.
R.D. Evans and staff

Geography-Biology-Environmental and Resource Science 403a

Concepts in water pollution. This course provides background information needed to understand current problems in water pollution and to prepare environmental impact statements. Prerequisites: *Geography 101* and *Biology-ERS 202* or permission of instructor. Recommended: *Chemistry 120* or *130*, *Biology 305*, *Geography 353a.* Lecture and seminar weekly.

R.D. Evans and staff

Geography 410

Advanced seminar in geography. This, with *Geography 400* or *495*, is the culmination of the Honours Degree in Geography. Students will present and attend regular seminars on subjects related to their Honours research. Co-requisites: *Geography 400* or *495*.

F.M. Helleiner and staff

Geography 495

Advanced reading course. This is the culmination of the Honours Degree in Geography. Students will meet periodically with faculty and will complete one or more major essays or reports. Students taking this course must obtain full details of it and begin preparation prior to entering the fourth quarter of the Honours program. Prerequisites: *Geography 301a/b*, *303a*.

F.M. Helleiner and staff

History

Professor and Chair of the Department
Douglas McCalla, B.A. (QUEEN'S), M.A. (TORONTO), D.PHIL. (OXFORD)

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); J.T. Gilchrist, B.A., PH.D. (LEEDS); 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) (on leave 1990-91); R.J.D. Page, M.A. (QUEEN'S), D.PHIL. (OXFORD); S.T. Robson, B.A. (BRITISH COLUMBIA), D.PHIL. (OXFORD); J.O. Stubbs, B.A. (TORONTO), M.SC. (LONDON SCHOOL OF ECONOMICS), D.PHIL. (OXFORD); John Syrett, B.A. (COLUMBIA), M.A., PH.D. (WISCONSIN)

Associate Professors

J.N. Jennings, B.A. (TORONTO), M.A. (CALGARY), PH.D. (TORONTO); J.S. Milloy, B.A. (ST. PATRICK'S), M.A. (CARLETON), PH.D. (OXFORD); Patricia M. Morton, M.A., PH.D. (TORONTO); J. Sangster, B.A. (TRENT), M.A., PH.D. (MCMASTER); S.D. Standen, B.A. (BRITISH COLUMBIA), M.A. (OREGON), PH.D. (TORONTO); J.E. Struthers, M.A. (CARLETON), PH.D. (TORONTO) (on leave 1990-91); K. Walden, M.A., PH.D. (QUEEN'S)

Lecturer

O. Andriewsky, B.A. (BROWN), M.A. (HARVARD)

University Librarian

M.W. Genoe, M.A. (WATERLOO), M.L.S. (WESTERN ONTARIO), M.PHIL. (WATERLOO)

Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine History courses: *History 100* or *120*, two *two-hundred* series courses, three *three-hundred* series courses, plus four courses in the fourth quarter of the program, including at least three *four-hundred* series courses and one *three-hundred* series course. One course in the fourth quarter may be in a field other than History.

Joint-major Honours program. Minimum seven History courses: *History 100* or *120*, two *two-hundred* series courses, two *three-hundred* series courses, plus at least two *four-hundred* series courses.

Single-major Ordinary program. Minimum six History courses: *History 100* or *120*, two *two-hundred* series courses, and three *three-hundred* series courses.

Joint-major Ordinary program. Minimum five History courses: *History 100* or *120*, 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.
- There are no prerequisites for any History courses but History majors or joint majors normally are required to take *two-hundred* series history courses before taking *three-hundred* series history courses.
- Students seeking admission to *four-hundred* series courses before qualifying for the Ordinary degree must apply to the instructor and their application be approved by the Chair.
- History majors and joint majors are normally required to take one course in North American history, and one course in European, Third World, or connectional history.
- History majors and joint majors must complete, in addition to either *History 100* or *120*, one course from each of the three lists below. Some courses appear in two lists and fulfill 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
380	300	336
	301	340
	302	350
	303	351
	307	360
	308	370
	310	380
	311	390
	312	
	316	
	345	

- 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.

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 historiography. Weekly lectures and weekly tutorial.

D. Standen and staff

History 120

A survey of West European history from the Middle Ages to the present. The course aims to introduce students to some of the main themes of western civilization, and to the variety of historical interpretations of those themes. Weekly lectures and tutorial.

O. Andriewsky 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.

History 205

The mediaeval 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 with films and video tapes.

J.T. Gilchrist

History 211

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

J.N. Jennings 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.M. 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 effect 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.N. Jennings

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

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.W. Hodgins

History-Canadian Studies 302

The emergence of modern Quebec since 1867. (Not offered this year.)

History-Canadian Studies 303

Early French Canada. The pre-industrial foundations of Quebec from the establishment of New France to 1850. An examination of economic, social, institutional and ideological issues from early Amerindian contact to the crisis of Lower Canada in the nineteenth century. Lecture and tutorial weekly.

D. Standen

History-Canadian Studies 307

The Atlantic provinces. (Not offered this year.)

History-Canadian Studies 308

Business history: The Canadian experience in international perspective, 1650-1960. (Not offered this year.)

History 310

The American reform tradition, 1896-1941. (Not offered this year.)

History 311

Colonial and Revolutionary America, 1630-1800. (Not offered this year.)

History 312

Contemporary United States. Social, intellectual, political and foreign policy developments from the 1929 Crash to the present. Lecture weekly and tutorial fortnightly.

J. Syrett

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, tutorial fortnightly.

J. Sangster

History 320

Modern British history, from the Industrial Revolution to the Falklands War. Special emphasis on the Victorians and the making of modern British society. Lecture weekly and tutorial fortnightly.

P. Morton

History 335

The era of the Second World War. (Not offered this year.)

History 336

The era of the Second World War. Pairs of students meet the instructor every third week for a 90-minute class, to present and discuss brief research papers on topics of their choice concerning the war experience. Lecture weekly.

S.T. Robson

History 340

Modern imperialism in Africa, 1860-1960. The theories of imperialism and their application from the scramble for Africa to the achievement of independence, with the greatest concentration on southern Africa. One-hour lecture weekly and two-hour seminar fortnightly.

History-Anthropology 345

Slavery in the Americas: the American

South, West Indies, and Latin America. (Not offered this year.)

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.M. Greene

History-French 351

La civilisation française. Offered in Nantes only. (See Modern Languages, French Section)

History 360

The Crusading Movement and the Crusading States from 1095 to the fall of Acre (1291). Emphasis is placed on various aspects of the crusades which shaped the emergence of the crusading states. Two-hour seminar weekly.

J.T. Gilchrist

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 380

Early modern Europe. Selected problems in British and continental European history from the fifteenth to the eighteenth centuries. Weekly lecture and tutorial.

History 390

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. Weekly lecture and tutorial.

J.C. Barker

History 395

Special topic. For details of offerings (if any), consult the department and the Supplement to the Calendar.

History-Native Studies 400

Research seminar in Indian history. (See Native Studies)

History-Canadian Studies 402

The Canadian West, from the fur trade to the Depression. Emphasis on exploration, native cultures, Indian-White relations, settlement, prairie literature and

unique forms of politics. Weekly seminar.

J.N. Jennings

History-Canadian Studies 403

Canadian intellectual and Cultural history. The course emphasizes the variety of contemporary approaches being used to explore our intellectual and cultural traditions.

K. Walden

History-Canadian Studies 406

Upper Canada. (Not offered this year.)

History-Canadian Studies 410

Social and political traditions and ideas in the United States and Canada, since 1896. (Not offered this year.)

History 415

The American South. Emphasis on cultural, social and political traditions and developments from the pre-Civil War era to the present. Two-hour seminar fortnightly.

P. Morton

History 418

The United States and the Vietnam War. Military, diplomatic, political and social developments from 1945 to 1975, including involvement of the Commonwealth countries. Seminar weekly.

J. Syrett

History-Canadian Studies 422

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

B.W. Hodgins

History-Canadian Studies-Native Studies 425

The evolution of the Settlement Commonwealth. (Not offered this year.)

History-Canadian Studies 430

Urban Canada, 1760-1920. (Not offered this year.)

History 435

The British Raj in India. (Not offered this year.)

History 440

Aspects of modern history. A combination seminar-reading course. Themes to be selected in consultation with students.
C.M. Greene, S.T. Robson and J. Syrett

History 445

International history, 1919-1939. The relations between the major European

states (including Britain) in the period from the Treaty of Versailles to the German invasion of Poland. Weekly seminar.

J.O. Stubbs

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.C. Barker

History 465

Reformation Europe. Particular reference to the first half of the sixteenth century. Selected topics deal with theological and socio-economic aspects of the period.

J.T. Gilchrist

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 seminar and occasional field trips.

D. McCalla and S.D. Standen

History-Canadian Studies 476

Studies in Canadian labour.
(See Canadian Studies)

History 480

Special subject. Individual courses designed to provide opportunities for more intensive study of particular topics in Canadian, American and European history. 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.

(TORONTO), P.ENG. (on leave 1990-91); J.P. Henniger, M.Sc., Ph.D. (MCGILL); D.G. Poole, B.Sc. (ACADIA), M.Sc., Ph.D. (MCMASTER) (on leave 1990-91)

Required Courses

The single-major Honours program consists of nineteen courses. Minimum eleven courses in Mathematics.

Mathematics 110 and 130
200 and 220
300

two *four-hundred* series courses
two additional *three-hundred* or *four-hundred* series courses.

Note: Commencing in the 1992-93 academic year and subject to Senate approval, the single-major Honours program will consist of twenty courses.

Joint-major Honours program. Minimum seven and one-half courses in Mathematics including
Mathematics 110 and 130
200 and 220
300 or 301

one *four-hundred* series course
one additional *three-hundred* or *four-hundred* series course.

For more complete information on the Honours programs and requirements, students should consult as early as possible the Honours brochure obtainable from the departmental office.

Single-major Ordinary program. Minimum six courses in Mathematics, including
Mathematics 110 and 130
200
300 or 301

and at least two other Mathematics courses at *two-hundred* level or higher.

Joint-major Ordinary program. Minimum five courses in Mathematics, including
Mathematics 110 and 130
200
300 or 301

and at least one other Mathematics course at *two-hundred* level or higher.

Special Proviso

—One of *Mathematics 210* or *220* may be counted as a *three-hundred* series credit toward the Ordinary Degree.

Mathematics 100

Introductory calculus. A first course in calculus for those without a Grade 13/OAC calculus course. Functions, limits and continuity, differentiation and in-

Mathematics

Professor of Mathematics and Chair of the Department

T.E.W. Nind, M.A. (CAMBRIDGE), P.ENG.

Professors

Cyril Carter, Ph.D. (LONDON); I.C. Chakravarty, M.Sc. (GAUHATI), Ph.D. (SASKATCHEWAN); E.A. Maxwell, M.Sc., Ph.D. (TORONTO); T.N. Murphy, B.Sc. (LIVERPOOL)

Associate Professors

G.F. Hamilton, B.A.Sc., M.A., Ph.D.

tegration 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.

Mathematics 130

Algebra. An introductory course with emphasis upon linear algebra. Four hours weekly. Prerequisite: A Grade 13/OAC mathematics credit with at least 60%. Three lectures and one seminar weekly.

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 the SAS computing system. Not credited toward Mathematics major requirements, nor available to students 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*. Two lectures and tutorial weekly.

Mathematics-Physics 211a

Classical mechanics. (See Physics)

Mathematics 220

Algebra. An introduction to abstract algebraic structures with selected applications. Groups, rings, integral domains, fields, lattices and Boolean algebras. Prerequisite: *Mathematics 130*. Two lectures and tutorial weekly.

T.N. Murphy

Mathematics-Computer Studies 240b
Computational algebra with applications. (Not offered this year.)

Mathematics-Computer Studies 241a

Numerical analysis. Prerequisite: *Mathematics 110*. Some knowledge of a programming language such as BASIC is also required. Two lectures and tutorial weekly.

C. Carter

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. Maximum likelihood. Testing for association. Introduction to elementary applications of the SAS computing system. 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, nonparametric tests, analysis of variance, normal regression, quality control. Elementary Bayes estimation and decision theory. Elementary applications of the SAS computing system. 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 100* together with one Grade 13/OAC credit in Mathematics. Two lectures and one tutorial weekly.

Mathematics 300

Analysis. The real and complex number system, sequences and series. Metric spaces. Riemann integration, improper

and infinite integrals, analytic functions. Taylor's, Laurent's and Liouville's theorems, Cauchy's theorem and the residue calculus, conformal mappings. Prerequisite: *Mathematics 200*. Three hours weekly.

Mathematics-Physics 301

Analytic techniques for the solution of ordinary and partial differential equations occurring in the physical and social sciences. Laplace transforms. Fourier series and integrals, special functions, functions of a complex variable, complex integration, conformal mappings. Prerequisite: *Mathematics 200*. Two lectures and one seminar weekly.

T.E.W. Nind

Mathematics-Physics 311b

Advanced classical mechanics. (See Physics)

Mathematics 321

Differential Geometry. Prerequisite: *Mathematics 200*. Two lectures weekly.

T.N. Murphy

Mathematics 322

Number theory and related topics in algebra and analysis. Prerequisites: *Mathematics 110* and *130*. (Offered this year and in alternate years.)

I.C. Chakravarty

Mathematics 332

Elementary general topology, identification spaces, the fundamental group. Prerequisite: *Mathematics 200*. (Not offered this year.)

Mathematics-Computer Studies 341

Mathematical programming with applications. Prerequisites: *Mathematics 200*, *Mathematics-Computer Studies 240b*, *Computer Studies 202a*.

C. Carter

Mathematics-Computer Studies-Statistics 351

Linear statistical models. Regression analysis, analysis of variance, design of experiments. Computer solutions for multiple regression and analysis of variance problems. Use of computer packages such as SAS and SPSS-X. Prerequisites: *Computer Studies 100* or *202a*, *Mathematics 110* or *130*, *Mathematics-Statistics 251a* (or *Mathematics-Statistics 150* with permission of instructor). Two hours weekly.

E.A. Maxwell

Mathematics-Science 360

History of mathematics. (Offered in

alternate years, but not this year.)

Mathematics 390

Reading-seminar course. Dynamical systems, chaos and fractals.

J.P. Henniger

Four-hundred Series Courses

An information meeting for students wishing to undertake the fourth quarter of the Honours degree will be arranged early in the Winter Term.

Mathematics 400

Analysis. Normed linear spaces and their topology, Stone-Weierstrass Theorem. Lebesgue integral and Fourier series. Optional topics in complex variable, distributions, etc. Prerequisites:

Mathematics 130 and *300*.

J.P. Henniger

Mathematics 401

Introduction to mathematical modelling. Partial differential equations. Pre- or co-requisite: *Mathematics 301*. Two to three hours weekly.

T.E.W. Nind

Other four-hundred series offerings in 1990-91 will be selected (depending on student demand and availability of instructors) from:

Mathematics 410

Function/measure theory.

Mathematics 421

Geometry.

Mathematics 422

Number theory.

Mathematics 431

Algebra.

Mathematics 432

Topology.

Mathematics 441

Numerical analysis.

Mathematics 451a

Sampling theory. (Not offered this year.)

Mathematics 452b

Theory of inference. (Not offered this year.)

Modern Languages and Literatures

Chair of the Department

Associate Professor of French and Associate Chair of French

A.E. Franklin, M.A. (CAMBRIDGE, TORONTO), D.E.A. (MONTPELLIER)

Associate Chair of German

A Krüger, STAATSEXAMEN (MÜNCHEN)

Associate Chair of Spanish

T.A. Noriega, LIC.EN FILOGIA (COLOMBIA), M.A., PH.D. (ALBERTA)

Modern Languages 100

An introduction to the fundamental concepts of language. This course is intended to further awareness of language and language learning through a comparative study of the evolution and contemporary structure of Western Indo-European languages. One lecture and one seminar weekly; all classes conducted in English. No prerequisite. *A.E. Franklin and staff*

French Studies Section

Professor Emeritus

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

Professor

Peter Royle, M.A. (OXFORD), PH.D. (NATAL) (on leave Winter Term 1991)

Associate Professors

A.E. Franklin, M.A. (CAMBRIDGE, TORONTO), D.E.A. (MONTPELLIER); H.B. Lapointe, B.A. (BALDWIN-WALLACE), M.A. (MCGILL) (on leave 1990-91); Jean-Pierre Lapointe, B.A. (R.M.C.), M.A. (MCGILL); Terence Mellors, M.A., D.PHIL. (OXFORD) (on leave); C. Verduyn, B.A. (TRENT), M.A., PH.D. (OTTAWA), (Y.A.P. IN NANTES)

Assistant Professor

Y. Thomas, B.A. (UQAM), M.A., PH.D. (MONTREAL)

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, 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, 390*

two *four-hundred* series courses or their equivalent.

Single-major Ordinary 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, 390*

Joint-major Ordinary 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* (Québec option), in their program, will be granted a B.A. in French (Québec Studies Emphasis).

Recommended courses for intending French majors: *Modern Languages 100, Latin 100, Classical Literature 100, Philosophy 101* and courses in at least one other modern language.

Modern Languages 100

An introduction to the fundamental concepts of language. (See Modern Languages and Literatures listing)

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 *French 105* or *French 110*)

A.E. Franklin and staff

French 105

A course in grammar review, comprehension, conversation and language laboratory practice for students who have Ontario Grade 13/OAC French or their equivalent. Four hours weekly. Not credited toward French major requirements. (May not be taken concurrently with *French 100* or *French 110*)

A.E. Franklin and staff

French 110

A course in language and literature normally required of students intending to major in French. Each student will take a weekly one-hour language seminar, one-hour laboratory practice, and will opt for one lecture and one literature seminar involving the critical analysis of selected texts in a) French Metropolitan Literature, or b) Québec Literature. Prerequisite: Ontario Grade 13/OAC French or their equivalent or *French 100*. (Excludes *French 105* or its equivalent)

J.-P. Lapointe, Y. Thomas and staff

Note: All two-hundred series courses may be counted as three-hundred series courses.

French 205

Advanced oral and written language study. Two hours weekly. Prerequisite: *French 105* or *French 110*, or their equivalent. (Excludes *French 200*)

Y. Thomas and staff

French 211

Le théâtre classique français. Required for a major in French. Prerequisite: *French 110*. Lecture and seminar weekly.

P. Royle and staff

French 233a

Le théâtre du dix-neuvième siècle. Lecture and seminar weekly. Prerequisite: *French 110*.

French 234b

Le théâtre du vingtième siècle. Lecture and seminar weekly. Prerequisite: *French 233a*.

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. It attempts to synthesize the history of ideas in Québec to promote a better understanding of contemporary Québec culture. Prerequisite: *French 100, 105, or 110*. Lecture, and one seminar weekly.

J.-P. Lapointe

French 305

An introduction to the techniques of translation (theory and practice). Two hours weekly. Prerequisite: *French 205*.

A.E. Franklin

French 312a

Le roman du dix-neuvième siècle. Prerequisite: *French 110*. Lecture and seminar weekly.

P. Royle

French 313b

Le roman du vingtième siècle. Prerequisite: *French 312a*. Lecture and seminar weekly.

French-Canadian Studies 325

Théâtre et poésie du Québec. Prerequisite: *French 110*. (Offered this year and in alternate years.)

J.-P. Lapointe

French 331

La pensée française. (Offered only in Nantes.)

French-History 351

La civilisation française. (Offered only in Nantes.)

French 361

La poésie française. Prerequisite: *French 110* or permission of department. Lecture and seminar weekly.

Y. Thomas

French-Canadian Studies 390

Le roman québécois. Prerequisite: *French 110*. Lecture and seminar weekly. (Offered in alternate years, but not this year.)

Four-hundred series courses are open only to students in the fourth quarter of the Honours program in French, or by permission of the Department.

French 400

Linguistique, stylistique et sémantique. (Not offered this year.)

French 410

Langue et littérature du moyen âge français. (Offered this year and in alternate years.)

A.E. Franklin

French 420

La critique littéraire française. Two hours weekly.

Y. Thomas

French 430

Initiation à la recherche littéraire. Two hours weekly. (Thesis course: Subject to be chosen in consultation with Section Chair.)

French 440

La Renaissance française. (Offered in alternate years, but not this year.)

French 490

Special author or topic in modern French or Québec literature. Special French literature topic for 1990-91: *La Fin de siècle: frivolité et décadence*.

Y. Thomas

Special author or topic in Québec literature. Special Québec literature topic for 1990-91: *L'oeuvre de Gabrielle Roy*. *J.-P. 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 1990-91 at Nantes, either by a Trent University professor, or by the University of Nantes faculty are:

French 211: Le théâtre classique français
French 325: Théâtre et poésie du Québec

French 305: Introduction à la traduction

French 312a: Le roman du dix-neuvième siècle.

French 313b: Le roman du vingtième siècle

French 331: La pensée française. French thought from the Renaissance on. Lecture and seminar weekly. Prerequisite: French 110.

French-History 351: La civilisation française. Lecture and seminar weekly. Prerequisite: French 110.

German Studies Section**Professors**

G. Baumgaertel, M.A. (BROWN), DR. PHIL. (TÜBINGEN); D.D. Stewart, M.A., PH.D. (TORONTO) (on leave Winter Term 1990)

Associate Professors

J.C. Fewster, M.A. (MANCHESTER) (Resident Director in Freiburg 1990-91); A.A. Krüger, STAATSEXAMEN (MÜNCHEN)

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 Ordinary program. Minimum six courses in German, including

German 105

205a

310a

316b

360a

Joint-major Ordinary 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.

—*German 232a* and one of *233b* or *240b* may be counted towards a major in German.

—*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.

Modern Languages 100

An introduction to the fundamental concepts of language. (See Modern Languages and Literatures)

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 Grade 13 German or equivalent standing. Not credited toward a major in German.

A.A. Krüger and staff

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.

G. Baumgaertel

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 department. Three lecture/seminars weekly.

A.A. Krüger

German 206b

German literature and thought from Nietzsche to Brecht. Modern writers and events. Prerequisite: *German 205a* or permission of department. One lecture, two seminars weekly.

G. Baumgaertel

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. 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. One of *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. (Not offered this year.)

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 und Drang". (Not offered this year.)

German 316b

Studies in German Romanticism in the European context. Prerequisite: *German 205a* or permission. One lecture, two seminars weekly.

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. (Not offered this year.)

German 351a

Studies in modern German poetry. One lecture, two seminars weekly.

D.D. Stewart

German 352b

The German novel from Grimmelshausen

to the present. (Not offered this year.)

German 360a

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.

G. Baumgaertel

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.

D.D. Stewart

German 410a

German Baroque literature. A survey of seventeenth-century literature in its European context. One lecture, two seminars weekly.

D.D. Stewart

German 420b

Studies in modern German literature. One lecture, two seminars weekly.

G. Baumgaertel

German 430

Major paper.

German 440b

East German literature. An examination of selected writings of both orthodox and critical writers. One lecture, two seminars weekly.

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 Freiburg University, West Germany, for Trent credits with a Trent/Brock 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. Enrolment is limited to 13

students from Trent. Honours students are especially encouraged to spend a year at Freiburg. For further details please consult the Chair of the Section.

Courses offered in 1990-91 at Freiburg by Professor J.C. Fewster, Trent University.

Winter Semester:

German 205a

Advanced language practice.

German 206a

German literature and thought from Nietzsche to Brecht.

German 231

German civilization from the origins to the present.

Summer Semester:

German 310b

The Age of Enlightenment and "Sturm und Drang".

German 330b

The German Novelle of the nineteenth and twentieth centuries.

and/or further German or other courses as individually arranged with the University of Freiburg and in consultation with the Resident Director.

Hispanic Studies Section

Professors

Rosa Maria Garrido, LIC.DER., DR.DER., DR. FILOLOGIA (SEVILLA), M.A. (TORONTO); J.P. González-Martín, LIC.DER. (OVIEDO), DR.DER. (ZARAGOZA); T.A. Noriega, LIC.EN FILOLOGIA (COLOMBIA), M.A., PH.D. (ALBERTA); Dawn L. Smith, M.A., D.PHIL. (OXFORD) (on leave 1990-91)

Associate Professor

G.D. Aitken, B.A. (TRENT), M.A. (STANFORD)

Required Courses

The single-major Honours program consists of nineteen courses. Minimum ten courses in Spanish, including

Spanish 100 or 111

201

211

300

Six additional courses at the *three-hundred* or *four-hundred* series level (excluding 324a, 325b and 326).

Joint-major Honours program. Minimum seven courses in Spanish, including *Spanish 100* or *111*

201

211

300

Three additional courses at the *three-hundred* or *four-hundred* series level (excluding *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 Ordinary program. Minimum six courses in Spanish, including *Spanish 100* or *111*

201

211

300

Two additional courses at the *three-hundred* or *four-hundred* series level (excluding *324a*, *325b* and *326*).

Joint-major Ordinary program. Minimum five courses in Spanish, including *Spanish 100* or *111*

201

211

300

One additional course at the *three-hundred* or *four-hundred* series level (excluding *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*.
- Students with sufficient knowledge of Spanish may be admitted directly to *Spanish 201* and *210* or *211*, at the discretion of the section.
- Spanish 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.

Modern Languages 100

An introduction to the fundamental concepts of language. (See *Modern Languages and Literatures*)

Spanish 100

Beginners' course in Spanish. An introduction to Spanish language with emphasis on oral Spanish. Texts include a grammar and one reader. Three seminars, one conversation hour, and one laboratory hour weekly.

G. Aitken and staff

Spanish 111

Continuing Spanish. Designed for students with some previous knowledge of Spanish. Language review, composition and conversation. Two seminars, one conversation hour and one laboratory hour weekly. Prerequisite: Grade 12 Spanish, *Spanish 100*, or permission of section.

G. Aitken

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), *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 111* or *201*.

R.M. Garrido and staff

Spanish 211*

Introduction to Spanish and Spanish-American literatures. One lecture, one seminar weekly conducted in Spanish. Students enrolled in this course are also normally required to register in *Spanish 111* or *Spanish 201*.

R.M. Garrido and staff

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.

R.M. Garrido

Spanish 311a*

Spanish contemporary literature since the generation of 1898. Prose and Theatre.

(Offered only in Granada this year.)

*Spanish 312b**

Spanish contemporary literature since the generation of 1898. Poetry, with special emphasis on the generation of 1927. (Offered only in Granada this year.)

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. (See Comparative Development Studies) (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. (Offered in alternate years, but not this year.)

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. (Offered in alternate years, but not this year.)

Spanish 400

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 412**

A course on some period of Spanish or Spanish-American literature.

Spanish 413

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

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.

R.M. Garrido

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 Quixote* and the *Novelas Ejemplares*. (Offered in alternate years, but not this year.)

Spanish 420

Contemporary Spanish-American novel: narrative structure and world view.

T.A. Noriega

Spanish 490, 491a, 492b*

Special topics in Hispanic Studies. Prerequisite: permission of the Chair and the instructor concerned.

Year Abroad Program

Normally, in order to be eligible to study for a year at the University of Granada, 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, 111* or equivalent. Enrolment is limited to 15 students from Trent. Honours students are especially encouraged to spend a year at Granada. For further details, please consult the Chair of the Section.

The courses to be offered in 1990-91 by Professor J.P. González-Martín, Trent University are:

*Spanish 201**: Intermediate Spanish.

Conversation, pronunciation, composition and reading.

*Spanish 210**: Introduction to Spanish and Spanish-American civilization.

*Spanish 211**: Introduction to Spanish and Spanish-American literatures.

*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 412**: Some period of Spanish or Spanish-American literature.

*Spanish 490**: Special topic in Hispanic Studies.

Native Management and Economic Development Program

Program Chair
(to be named)

This Program offers an integrated approach to the development of management and entrepreneurial skills. The Program is jointly sponsored by the Administrative and Policy Studies Program and the Department of Native Studies 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 of native ancestry are encouraged to enrol. Students are required to complete 8 to 8½ courses of which 7 are university credit courses (*Native Studies 100, Administration 190, Native Studies 150a, Native Studies 151b, Administration 201a and 202b, Native Studies 290, Native Studies 384a, Administration 395b* are core courses).
- b. a Bachelor of Arts in Native Studies (NMED emphasis). 15 courses, including 6 courses in Native Studies and 4 courses in Administrative and Policy Studies are required.
- c. an Honours (4 year) Degree Program

Option 1:
Bachelor of Arts (Honours) in Native Studies (NMED emphasis). Same as b. above, plus an additional academic year and successful completion of a minimum of four additional credits.

Option 2:
Bachelor of Administrative Studies (NMED Emphasis). A four year (20 course credits) program.

Further details are available in the *Native Management and Economic Development Prospectus*.

Core Courses

Native Studies 150a

Introduction to community development. (See Native Studies)

Native Studies 151b

Community-based economic development. (See Native Studies)

Administration 190

Introduction to management in native organizations. (See Administrative and Policy Studies)

Native Studies 290

Native economic development. (See Native Studies)

Administration 395b

Organizational behaviour in native organizations. (See Administrative and Policy Studies)

Native Studies

Professor and Chair of the Department

M.J. Castellano, B.A. (QUEEN'S), M.S.W. (TORONTO)

Professors Emeriti

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

F.E. Wheatley

Professors

D.N. McCaskill, B.A. (WINNIPEG), M.A. (CARLETON), PH.D. (YORK)

Associate Professor

J.S. Milloy, B.A. (ST. PATRICK'S), M.A. (CARLETON), D.PHIL. (OXFORD)

Assistant Professor

M.S. Dockstator, B.SC. (WATERLOO), LL.B. (OSGOODE)

Lecturer

S.I. Williams, B.A. (TRENT)

Adjunct Faculty

J.E. Thomas

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 and one of 382a, 383b, 384a, 385b* Three four-hundred series courses.

Joint-major Honours program. Minimum seven courses in Native Studies including *Native Studies 100, 200, one of 280 or 310, 381a and one of 382a, 383b, 384a, 385b*

Two four-hundred series courses.

Single-major Ordinary program. Minimum six courses in Native Studies, including *Native Studies 100, 200, one of 280 or 310*

Joint-major Ordinary 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 200

Politics and native communities. The course will focus both on the traditional political culture and native people and on the political structures of colonialism (Indian Acts, Treaties, etc.), viewed from legal and historical perspectives, within which native people exist. 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. (Not offered this year.)

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.

S.I. Williams

Native Studies 220

Iroquois culture and traditions. A study of the political, economic, kinship and religious institutions of traditional Iroquois society including prehistoric background, establishment of the Six Nations Confederacy, the longhouse religion, and contemporary situation. Lecture and tutorial weekly.

J.E. Thomas

Native Studies 225

Oral Mohawk. (Not offered this year.)

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.

J.S. Milloy

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.

M.J. Castellano

Native Studies-Canadian Studies-History 270

History and politics of the Metis and non-status Indians of Canada. An examination of the historical development of the Metis nation and survey of

selected issues facing Metis and non-status Indians today. The course will explore topics such as Metis origins and identity, ideology and the emergence of Metis nationalism, Metis leadership and land claims. Field placement or research project optional. Lecture and seminar weekly.

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.I. Williams

Native 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 initiatives in 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-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, 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).

D.N. McCaskill

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.

M.J. Castellano

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.

D.N. McCaskill

Native Studies 340

Native law. An examination of contemporary legal issues affecting native people in Canada. The course will consist of four principle subject areas: an analysis of the First Ministers' Constitutional Conferences on Aboriginal Rights; an introduction to the legal nature of treaties; the concept of aboriginal title and land claims negotiations; and current issues in the area of native law. Emphasis will be placed on the development of skills from a practical, applied perspective. Lecture and tutorial weekly.

M.S. Dockstator

Native Studies-Anthropology 350

Art of the Americas. (See Anthropology)

Native Studies-Canadian Studies 360

Native peoples in literature. (Not offered this year.)

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.

M.J. Castellano

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. This course will provide students with an introduction to conducting survey research within a community-based research context. Topics will include issues in cross-cultural research, questionnaire design and administration, and data analysis. Research project required. *Native Studies 381a* recommended. Lecture and seminar weekly.

Native Studies 385b

Program planning and evaluation. This course will examine the process of program development in a native community context, including goal setting, needs analysis, operational planning, budgeting and fundraising, program implementation, and evaluation. The essential roles

of research, planning and evaluation will be emphasized. Research project required. Lecture and seminar weekly (three hours). *Native Studies 384a* highly recommended.

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 120 hours 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-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 410

Seminar on indigenous knowledge. Will explore contemporary Indian expressions and interpretations of traditional thought and beliefs. Modes of organizing, validating and communicating knowledge form central themes. Major research project will be required. Seminar weekly.

M.J. Castellano

Native Studies-Canadian Studies-History 425

The evolution of the settlement commonwealth. (Not offered this year.)

Native Studies-Anthropology-Canadian Studies 450

Native art of Canada. (See Anthropology)

Native Studies 481

Selected topics. Aboriginal people of the

Arctic. (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

Independent study. 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 498

Research paper. 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.

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 are drawn from Native Studies course offerings.

Students must enrol in *Communications 91*, a six-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

Two additional courses, one of which may be a *one-hundred* series course in a discipline other than Native Studies in combination with a *two-hundred* series course in Native Studies. Some *two-hundred* series Native Studies courses are available only 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 six-week summer course providing assessment and skill-development in study skills, writing, reading, speaking and listening. Focus is on native content. Streams for both Native Studies and Native Management and Economic Development Diploma Programs are provided. 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. Four hours per week.

Philosophy

Professor and Chair of the Department

J.W. Burbidge, M.A. (YALE), B.D., PH.D. (TORONTO)

Professor Emeritus

David Gallop, M.A. (OXFORD)

Professors

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); M.L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO) (on leave 1990-91)

Associate Professors

C.V. Boundas, M.A., PH.D. (PURDUE);
 B.J. Hodgson, M.A. (TORONTO), PH.D.
 (WESTERN ONTARIO); R.M. Neumann,
 B.A. (COLUMBIA), M.A., PH.D. (TORONTO)

Assistant Professors

F.C. McKinnon, B.A. (MCGILL), B.PHIL.,
 D.PHIL. (OXFORD); 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, including

Philosophy 101 or *105* strongly recommended
210 and *212* required, both normally in the second year
240a required
 Two *four-hundred* series courses required

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

Philosophy 101 or *105* strongly recommended
210 and *212* required, one normally in the second year, the other normally in the third year
410 or *420* required

Single-major Ordinary program. Minimum six courses in Philosophy, including

Philosophy 101 or *105* strongly recommended
210 and *212* required, both normally in the second year

Joint-major Ordinary program. Minimum five courses in Philosophy, including

Philosophy 101 or *105* strongly recommended
210 or *212* required

Special Provisos

- *Philosophy 101* and *Philosophy 105*, although not formal prerequisites, offer a preparation for all other courses in the subject.
- *Philosophy 101* and *105* may not both be taken in the first year and only one of them may be counted towards a Philosophy major
- First-year 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 requirement for *three-hundred* series courses.
- The Logic requirement for a single-major Honours degree shall normally be completed prior to admission to the fourth quarter of an Honours program. By special permission of the department, *Philosophy 105* may be substituted for *Philosophy 240a*.
- The fourth quarter of the Honours program will normally consist of four courses.
- To be admitted to the fourth quarter of an Honours program, a student must have an average of 70% in all philosophy courses that count towards the major.
- In the fourth quarter of the Honours program, a student must obtain an overall average of 65% and have no more than one course with a D standing to qualify for an Honours degree in philosophy.
- Full requirements for the Honours degree in philosophy are published in the *Trent University Department of Philosophy Prospectus and Honours Brochure*.
- Students who were enrolled in their second year of studies in 1989-90 or before have the option of qualifying for their degree under the rules governing at that time.

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. Weekly lecture, weekly tutorial.

Co-ordinator: B.J. Hodgson

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 and in critically evaluating arguments. Three hours weekly.

Co-ordinator: 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 em-

phasis will be placed upon selected works of Plato and Aristotle. Two hours weekly.

C.W. Tindale

Philosophy 212

Early modern philosophy. A study of the important philosophies of the seventeenth and eighteenth centuries, including those of Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume and Kant. Two hours weekly.

B.J. Hodgson

Philosophy 214

Introduction to existential philosophy. Themes and texts will be selected from the writings of Nietzsche, Kierkegaard, Heidegger, Camus, Sartre, and de Beauvoir. Two hours weekly.

C.V. Boundas

Philosophy 230

Moral issues. (Offered in alternate years, but not this year.)

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.I. MacAdam

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. (Offered in alternate years, but not this year.)

Philosophy 282

Oriental philosophy: China and Japan. A study of major Chinese and Japanese philosophers, including Confucius, Lao Tzu, Dogen, Nishida and Suzuki. Ch'an and Zen Buddhism will be examined. A focus of the course will be the relation between human nature and nature, and the methods by which it is discerned. The relation between knowledge and experience will be emphasized as a means to understanding the primacy of the

aesthetic in Japanese culture. Two hours weekly. (Offered this year and in alternate years.)

R.E. Carter

Philosophy 311

Medieval philosophy. (Offered in alternate years, but not this year.)

Philosophy 312

Nineteenth century philosophy. The main movements of thought as found in selected writings of Fichte, Hegel, J.S. Mill, Marx, C.S. Pierce, and others. Prerequisite: *Philosophy 212* or permission of the instructor. Two hours weekly. (Offered this year and in alternate years.)

J.W. Burbidge

Philosophy 313

Analytic philosophy. An introduction to analytic philosophy and an examination of its commitment to the methodological tools of linguistic analysis. Philosophers studied will include Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, as well as their more recent successors, both American and British. Prerequisite: *Philosophy 212* or permission of the instructor. Two hours weekly. (Offered this year and in alternate years.)

F.C. McKinnon

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.)

C.V. Boundas

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 to utilitarianism, and the limits to rights. Weekly two-hour seminar.

R.M. Neumann

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 com-

pleteness, 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. (Offered in alternate years, but not this year.)

Philosophy-Psychology 377a

Philosophy of mind. (Offered in alternate years, but not this year.)

Philosophy 378b

Philosophy of language. (Offered in alternate years, but not this year.)

Philosophy 379

Philosophy of art. The study of meaning and value in literature and the arts, which will explore the kind of reality they embody, the type of knowledge they communicate and the nature of aesthetic experience. Two hours weekly. (Offered this year and in alternate years.)

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 399

Special topics. (Not offered this year.)

Four-hundred Series Courses

Applications to enter the fourth quarter of the Honours program, complete with individual programs of study, must be submitted before May of the year in which the applicant expects to qualify for an Ordinary degree. Inquiries and applications should be directed to the Chair of the department.

Philosophy 410

Major texts. A textual study of some major works of Plato and Aristotle on literature and language. Prerequisites: *Philosophy 210* and *212*, or permission of the instructor. Two hours weekly.

D. Gallop and C.W. Tindale

Philosophy 420

Metaphysics and epistemology. A study of some traditional problems including the nature of rationality, knowledge and belief, scepticism, realism and anti-realism, meaning and truth, other minds, causation, necessity. Prerequisites:

Philosophy 210 and *212* or permission of the instructor. Two hours weekly.

F.C. McKinnon

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 and prior to the approval of the candidate's program for the fourth quarter of the Honours program. Periodic tutorials.

Physics

Professor and Chair of the Department

A.J. Slavin, M.SC. (TORONTO), PH.D. (CAMBRIDGE) (on leave, Autumn Term)
Acting Chair (Autumn Term)
P.C. Dawson

Professor Emeritus

J.I. Lodge, M.A. (QUEEN'S), PH.D. (VIRGINIA)

Professors

L.C.R. Alfred, M.SC. (BOMBAY), PH.D. (SHEFFIELD) (on leave, Winter Term);
R.G. Johnson, M.SC. (QUEEN'S), PH.D. (LIVERPOOL); J.W. Jury, M.SC., PH.D. (TORONTO)

Associate Professors

P.C. Dawson, M.SC. (TRENT), PH.D. (VICTORIA); J.W. Earnshaw, B.A.S.C. (TORONTO), PH.D. (CAMBRIDGE)

Senior Demonstrator

John Breukelaar, B.S.C. (YORK), M.SC. (TRENT)

Demonstrator

David Marshall, B.S.C. (WATERLOO)

Required Courses

The third and fourth quarter curriculum will be revised in 1991-92. Students may obtain a description of these changes from the Physics department.

The single-major Honours program consists of twenty courses. Minimum ten courses in Physics, including

Physics 100

200, or all of 202a, 211a,
270b, 280b
300 or 302a, 321
400, 420

Two other four-hundred series Physics

courses. See Honours Brochure for details.

Joint-major Honours program. Minimum seven courses in Physics, including *Physics 100*

200, or all of 202a, 211a,
270b, 280b
300 or 302a, 321
400

One other two-hundred or three-hundred series Physics course

One other approved four-hundred series Physics course

Single-major Ordinary program. Minimum six courses in Physics, including *Physics 100*

200, or all of 202a, 211a,
270b, 280b
300 or 302a, 321

Joint-major Ordinary program. Minimum five courses in Physics including *Physics 100*

200, or all of 202a, 211a,
270b, 280b
300 or 302a, 321

Special Provisos

- First-year students may take *Physics 100* and *Physics 150* or *155* as courses counting as two different disciplines.
- Students electing no more than two courses in Physics will normally elect *Physics 100* and *Physics 202a*.
- The fourth quarter of the Honours program will normally consist of five courses approved by the department.
- 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* for Honours Physics. *Mathematics 130* is strongly recommended for the Honours programs.
- Physics 325b* may be taken by students in second quarter.
- Physics 355a* may be taken by students in fourth quarter.
- The word "course" under "Required Courses" means one full-course or two half-courses.

Physics 100

Elementary physics. Particle dynamics, translational and rotational motion, elec-

tricity, magnetism, optics, special relativity. Prerequisites: Grade 13/OAC Calculus or Algebra, or equivalent, or permission of the department. Grade 13/OAC credits in Physics and Calculus are recommended, and concurrent enrolment in first-year calculus is strongly recommended. *Mathematics 110* is required for Physics and Chemical Physics majors. Three class meetings and three-hour laboratory weekly, tutorial fortnightly.

Physics 150

Introductory astronomy. The solar system, sun, and stars. Stars and 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. (Excludes *Physics 155*)

P.C. Dawson

Physics 155

Introductory astronomy. The solar system, sun, and stars. Stars and stellar evolution, supernovae, neutron stars, black holes. Galaxies, quasars, introductory cosmology. The Big Bang. Astronomy vs. astrology, the search for extraterrestrial intelligence. This course satisfies the quantitative science prerequisite for the Junior-Intermediate program option in Teacher Education. Prerequisite: Grade 12 advanced level mathematics. Not to be counted towards a major in Physics. (Excludes *Physics 150*) Two lectures weekly plus periodic workshops for observations.

P.C. Dawson

Physics 202a

Introductory quantum physics. Special relativity, particle-like aspects of radiation, atomic structure, wave-like properties of matter, Schrödinger equation and applications to one- and three-dimensional systems. Prerequisites: *Physics 100* and *Mathematics 110*. Three lectures and three-hour laboratory weekly, tutorial fortnightly. (Excludes *Physics 200*)

P.C. Dawson

Physics-Mathematics 211a

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. Prerequisites: *Mathematics 110* and *Physics 100* or permission of the instructor. Corequisite: *Mathematics 200*. Three lectures weekly and tutorial fortnightly. (Excludes *Mathematics-Physics 210*)

Physics 270b

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. (Excludes *Physics 200*)

P.C. Dawson

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. Prerequisites: *Physics 100* and *Mathematics 110*. Corequisite: *Mathematics 200*. Three lectures weekly and tutorial fortnightly, three-hour laboratory weekly. (Excludes *Physics 330a*)

Physics 300

Modern physics. Development of the foundations of modern physics, including quantum theory, atomic physics, introductory nuclear physics, quantum statistics. Prerequisite: *Mathematics 200*, *Physics 200* (except in the Chemical Physics program) or *Physics 202a*. Two lectures, one tutorial, one laboratory weekly. (Not offered after 1990-91.)

R.G. Johnson

Physics-Mathematics 301

Analytic techniques for the solution of ordinary and partial differential equations occurring in the physical and social sciences. (See *Mathematics*)

Physics 302a

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. Prerequisites: *Physics 202a* and *Mathematics 200*. Three lectures and tutorial weekly, three-hour laboratory weekly. (Excludes *Physics 300*; offered after 1990-91)

Physics-Mathematics 311b

Advanced classical mechanics. (Offered after 1990-91.)

Physics 321

Electricity and magnetism. Electrostatics, magnetostatics, electric and magnetic properties of matter, circuit theory, Maxwell's equations. Prerequisites: *Physics 100* and *Mathematics 200*. Three class meetings, laboratory or problems session weekly.

Physics 325b

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. Prerequisites: *Physics 100* and *OAC/Grade 13 Calculus* or equivalent. Three class meetings weekly, three-hour laboratory weekly. (Excludes *Physics-Computer Studies 223a* and *Physics 224b*)

Physics 355a

Relativity and tensor analysis. Special relativity-kinematics: events and spacetime, 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 200* or *202a* and *Mathematics 200*. Three lectures weekly, tutorial fortnightly.

Physics 400

Quantum mechanics. Hilbert space, Dirac notation, interpretative postulates, stationary states, transitions, symmetries, angular momentum, spherically symmetric potentials, identical particles and exchange symmetry, partial wave analysis of scattering, Born approximation. Prerequisites: *Physics 300* or *302a*, *Mathematics-Physics 301*. Three class meetings weekly.

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. Electromagnetic waves in various media. Motion of charged particles in electromagnetic fields. Electromagnetic radiation. Radiating systems. Prerequisites: *Physics 321* (and *355a* after 1991-92),

Mathematics-Physics 301. Three class meetings weekly.

Physics 430

Solid state physics. Crystallography, crystal binding, lattice vibrations and thermal properties, band theory, electron transport, semiconductors, magnetic properties. Prerequisites: *Physics 300* and *321*. Three class meetings weekly, laboratory.

Physics 441a

Nuclear physics. Nuclear properties, internucleon forces, nuclear models, radiation and decay, nuclear reactions, applications, accelerators and detectors. Prerequisites: *Physics 300*. Three class meetings weekly, laboratory.

J. W. Jury

Physics 442b

Particle physics. High energy physics phenomena, elementary particles and their interactions, quarks and gluons. Electroweak unification. Grand unified theories. Prerequisite: *Physics 441a*, *355a*. Three class meetings weekly.

P. C. Dawson

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.

Physics 470b

Statistical and thermal physics. Fundamental concepts. Thermodynamic quantities. Statistical thermodynamics and applications. Statistical mechanics and applications. Phase equilibrium. Quantum statistics. Transport theory. Prerequisite: *Physics 300*. 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

Professor and Chair of the Department
J. Wearing, B.A. (WESTERN ONTARIO),
M.A. (TORONTO, OXFORD), D.PHIL.
(OXFORD)

Professors

Margaret P. Doxey, B.S.C., PH.D.
(LONDON); Magnus Gunther, B.A.
(WITWATERSRAND), PH.D. (NORTH
CAROLINA); David Kettler, M.A., PH.D.
(COLUMBIA) (on leave 1990-91); K.R.V.
Lyon, PH.D. (BRITISH COLUMBIA); D.R.
Morrison, M.A. (SASKATCHEWAN), D.PHIL.
(SUSSEX); R.C. Paehlke, B.A. (LEHIGH),
M.A. (NEW SCHOOL FOR SOCIAL RE-
SEARCH), PH.D. (BRITISH COLUMBIA)

Associate Professors

R. Campbell, B.A. (TRENT), M.A.
(TORONTO), PH.D. (LONDON) (on leave
1990-91); J.D. Driscoll, M.A., PH.D.
(QUEEN'S)

Lecturers

K. Brownsey, B.A., M.A. (VICTORIA);
B. Dimock, B.A. (MOUNT ALLISON), M.A.
(CARLETON)

Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Politics, including *Politics 100*, at least two of *Politics 233*, *333*, *334*, *430*, *435*, at least two courses at the *three-hundred* level, and at least three courses at the *four-hundred* level

Joint-major Honours program. Minimum seven courses in Politics, including *Politics 100*

233 or *333* or *334*

at least two courses at the *three-hundred* level, and two courses at the *four-hundred* level

Single-major Ordinary program. Minimum six courses in Politics, including *Politics 100* and at least two courses at the *three-hundred* level

Joint-major Ordinary 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.

—*Three-hundred* level courses normally require a *two-hundred* level prerequisite; where permission of the in-

structor or the department is indicated, this must be acquired in the spring by the time of pre-registration.

- A course in political theory (*Politics* 233 or 333 or 334) is a prerequisite to entry into the Honours program.
- Candidates for the Honours program must devise a program with the Department Chair in which courses have some substantive and coherent linkage with one another.
- Proposals for reading courses under *Politics* 390 and 490 and for the *Politics* 470 honours thesis must be developed in consultation with tutors and approved by the department, preferably in the Winter Term of the preceding year and in no case later than the Friday before Thanksgiving of the year in which they are to be taken.

Details of the program in Political Studies, which offers courses in Canadian politics, Comparative politics, Political Theory, International Relations, and Policy Studies, may be obtained from the office of the Chair of the department.

Politics 100

Introduction. An introduction to the study of politics through an examination of the growth of the Canadian state since World War II in historical and comparative perspective. Students will be encouraged to experiment with a variety of analytical and ideological approaches to understanding the Canadian political process and current political problems. Two lectures and one tutorial weekly.

V. Lyon 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, civil liberties, and the process of constitutional change. Regular lectures and tutorials.

J. Wearing

Politics 210

American politics. A review of the basic values underlying the American system and of its political institutions is followed by a study of interpretations of how the system functions and of reform proposals. At various points, aspects of the US 'pluralist' system are highlighted by comparing them with 'corporatist' Sweden. Regular lectures and tutorials.

V. Lyon

Politics 220

International politics. An introduction to the study of international politics including such topics as the Cold War, nuclear deterrence and the arms race, great power rivalry and crisis decision-making, North-South issues and aspects of Canadian foreign policy. Regular lectures and tutorials. (See Comparative Development Studies)

B. Dimock and staff

Politics 233

Political theory. An approach to debates about the nature and uses of theory in political studies, through illustrative studies in the history of political theory, with special emphasis on problems of constitution, acquisition and politics, force and law, the formation and testing of political knowledge. Authors considered include Plato, Aristotle, Machiavelli, Hobbes, Locke, and Rousseau. Weekly lectures and tutorials.

Politics 240

Comparative politics. Political processes and public policy-making in the Soviet Union, China and Britain. Focus on differences and similarities between a liberal democracy, a command socialist and a modified market socialist political system. Emphasis also on historical origins and contemporary problems these systems face. Regular lectures and tutorials. (See Comparative Development Studies)

M. Gunther

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 application to political life. Lecture and tutorial/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. An analysis of the political system of Ontario. The way the views of Ontarians are represented in the system and its consequences in terms of government policy are analyzed. Proposals for making the province more

democratic and its government more effective are considered. Prerequisites: *Politics 201* or *Canadian Studies 200* or *Administration 250* or permission of the instructor. Regular lectures and tutorials. V. Lyon

Politics 320

Conflict and co-operation in international relations. (Not offered this year.)

Politics 321

International law and organization. A policy-oriented study of international law in the context of contemporary international society, emphasizing the development of law through international organization. Prerequisite: *Politics 220*. Weekly lecture and seminar.

M. Doxey

Politics-Canadian Studies 322

Canadian-American relations since World War II. An analysis of the Canadian-American relationship through an examination of continental interdependence and transnational relations, areas of conflict and cooperation, and the changing nature of the bilateral diplomatic culture. Prerequisite: *History 100* or *Politics 100*. Lecture, seminar weekly.

K. Brownsey

Politics 333

Political theory. Theories of state and revolution. From Hegel and Marx to the present, with emphasis on non-liberal theories of economically advanced modern regimes. Prerequisite: *Politics 233* or *334* or permission of the instructor. (Offered this year and in alternate years.)

Politics 334

Liberal democratic theory. (Not offered this year.)

Politics 340

Comparative European politics. A study of contemporary politics in Western Europe with emphasis on the historical, social and economic factors that have produced political change in Britain, France, West Germany and Italy. Other European democracies are examined in the light of certain selected themes. Prerequisite: A two-hundred level Politics course or permission of the instructor. Regular lectures and tutorials. (Offered this year and in alternate years.)

J. Wearing

Politics 341

Party organization and elections. (Not

offered this year.)

Politics-Comparative Development 350

The political economy of underdevelopment. A study of the specific political and economic factors which have been the basis for the emergence of populist movements, revolutions, and military coups d'etat. First term: analytic foundations; second term: case studies. Overall concerns centre on 'progress', 'development', and 'democracy'. Prerequisite: A two-hundred level Politics course or *Comparative Development 200* or permission of the instructor. Lecture and tutorial weekly.

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. The first term focuses on environmental factors, instruments, institutions and processes. In the second term substantive policy issues and contemporary issues will be explored. Emphasis will be given to what is distinctive about the policy process in Canada. Prerequisite: *Politics 201* or *260* or *Canadian Studies 200* or *Administration 250* or permission of the instructor. Lecture and tutorial weekly.

K. Brownsey

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 395

Special topics in political inquiry. (Not offered this year.)

Politics-Canadian Studies 401

Contemporary Canadian problems. A critical study of selected Canadian political problems. Regular seminars. J. Wearing

Politics 420

Foreign policy analysis. A study of the processes of formulating and executing foreign policy with emphasis on decision-making and decision-makers. Prerequisite: permission of the department. Regular seminars.

B. Dimock

Politics 430

Contemporary political analysis. A

critical examination of recent approaches to the study of politics. Weekly seminars.

J. Driscoll

Politics 435

Political ideologies. (Not offered this year.)

Politics-Comparative Development 440

Political economy and corporative politics. Approaches to the study of the linkage between economy and polity in capitalist and socialist states. Focus is on the role of the state, theories of comparative politics, planning, industrialization and development, welfare policies and international trade. Countries studied vary but include USSR, China, Japan. No previous background in economics assumed. Prerequisite: Permission of the Department. Weekly seminars.

M. Gunther

Politics-Environmental and Resource Studies 460

Public policy in comparative perspective. A study of selected policy cases in Canada and/or its provinces in comparison with other Western polities. The course will emphasize the development of projects involving primary research. Weekly lectures and occasional smaller group sessions.

R. Paehlke

Politics 470

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 490, 491a, 492b

Reading course in politics. Open only to Honours students, or students in the final year of a Politics major program.

Periodic tutorials. Prerequisite: permission of the department, but see Special Provisos.

Politics 495

Special topics in political inquiry. This year: An examination of international sanctions in twentieth century theory and practice, focusing on political, legal, economic and psychological aspects of sanctions applied unilaterally and multilaterally against a variety of targets including Cuba, Rhodesia, South Africa, the Soviet Union, Libya and Iran. Prerequisite: Permission of the Department. Regular seminars.

M. Doxey

Psychology

Associate Professor and Chair of the Department

R.G. Settingington, M.A., PH.D. (TORONTO)

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) (on leave 1990-91); P.T.P. Wong, B.A. (CARLETON), M.A., PH.D. (TORONTO)

Associate Professors

B.L. Beach, B.A. (ACADIA), M.A. (DALHOUSIE), PH.D. (MCGILL) (on leave 1990-91); F.A. Bleasdale, B.A. (TORONTO), M.A., PH.D. (WESTERN ONTARIO); D.G. Lowe, B.A. (MCMASTER), M.A., PH.D. (WATERLOO); R.B. Morris, B.A. (REDLANDS), M.SC. (WASHINGTON), PH.D. (ALBERTA); C.F. Sproule, M.A. (TORONTO); H.J. Stanford, M.A., PH.D. (QUEEN'S); Peter Watson, M.A., PH.D. (WESTERN ONTARIO)

Assistant Professor

D.J. Kennett, PH.D. (MCMASTER)

Adjunct Faculty

G.A. Burkhart, B.A. (CALVIN COLLEGE), M.SC. (WATERLOO), PH.D. (WINDSOR); E.J. Peacock, B.SC. (TRENT), M.A. (TORONTO)

Required Courses

Honours programs. Single- and joint-major Honours programs in Psychology are arranged in consultation with the department(s). Students intending to do a four-year Honours program should discuss their programs with the Chair of the Department or the Chair of the Honours Committee before arranging their *three-hundred* and *four-hundred* series programs. All requirements for the Ordinary degree plus *Psychology 315* and one *Psychology 300-series Basic* full-course equivalent other than (or in addition to) *Psychology 395* must be completed before students begin the fourth quarter of their Honours program. Application for admission to the fourth quarter should be made during the third quarter of study.

The single-major Honours program con-

sists of twenty courses. Minimum requirements: the equivalent of eleven full courses in Psychology, including *Psychology 101*

215

One of 221, 235, 271, 280 315 (see Notes)

Two *Basic* full-course equivalents of 302a, 306, 312b, 351, 375a, 376b, 395

Two *Specialized* full-course equivalents of 301, 330a, 332b, 340, 371, 385, 390 400 (double credit)

410

Joint-major Honours program. Intending students are advised to consult the two departments involved as early as possible in their university careers. Minimum requirements: the equivalent of eight full courses in Psychology, including *Psychology 101*

215

One of 221, 235, 271, 280 315 (see Notes)

One *Basic* full-course equivalent of 302a, 306, 312b, 351, 375a, 376b, 395

One *Specialized* full-course equivalent of 301, 330a, 332b, 340, 371, 385, 390 400 (double-credit) (see

Notes)

410

Single-major (or joint-major) Ordinary program. Minimum requirements: the equivalent of six (or five, if joint-major) full courses in Psychology, including *Psychology 101*

215

One of 221, 235, 271, 280

One *Basic* full-course equivalent of 302a, 306, 312b, 351, 375a, 376b, 395

One *Specialized* full-course equivalent of 301, 330a, 332b, 340, 371, 385, 390

One other *three-hundred* series full-course equivalent from the *Basic* or *Specialized* groups above or *Psychology 315* (delete this sixth course requirement if joint-major)

Notes:

- For students who have completed *Psychology 101* after August 1987, a standing of C- (60%) or higher is required in *Psychology 101* in order to register in any upper level 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.

- For students who completed *Psychology 101* before August 1987, a standing of C- (60%) or higher is required in *Psychology 101* in order to complete a major in Psychology.
- Students intending to major in Psychology should consult with a Departmental faculty member prior to starting second year.
- For all courses listed below with a *Psychology 215* prerequisite, the former *Psychology 211a* is considered an acceptable alternative prerequisite.
- For students who have completed the former *Psychology 311a*, the *Psychology 315* prerequisite will be waived.
- Students contemplating taking a *reading course* must consult with the course coordinator prior to April 30 of the preceding academic year.
- In addition to a variety of relevant courses in cognate disciplines, the following courses are highly recommended to students majoring in Psychology: *Computer Studies 100*, *Philosophy 105*, and *Philosophy 370*.
- To proceed to the fourth quarter of the Honours program, students must, in addition to satisfying the Department's and University's normal requirements, achieve at least a B- cumulative average across all Psychology courses completed; for repeated courses, the higher mark only is included in the average.
- In order to receive an Honours degree in Psychology, students must maintain at least a B- cumulative average across all Psychology courses completed as well as meet all other Department and University requirements.
- Some joint-major requirements may be waived depending on courses taken in the conjoint discipline.
- Students doing independent research involving animal subjects in any Psychology course must complete satisfactorily the University's Animal Care Course as part of the Psychology course requirements.
- For students majoring in Psychology, *Psychology 215* fulfills the Mathematics requirement for the B.Sc.

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.

H.J. Stanford and 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. Prerequisite: C- or higher in *Psychology 101*. Three lectures weekly; workshop or laboratory weekly.

C.H. Ernest and 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.

Psychology 271

Social psychology. A discussion of contemporary research in attitude formation and change; group structure and processes; social influence processes; and interpersonal relations, including liking, prejudice, aggression, and altruism. Prerequisite: C- or higher in *Psychology 101*. Two lectures weekly; seminar fortnightly.

C.F. Sproule

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. A major component of the course will in-

volve execution of a group research project. Prerequisite: C- or higher in *Psychology 101*. Two-hour lecture weekly; laboratory fortnightly.

P. Watson and 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 series Psychology course or permission of the department. Two lectures weekly; seminar fortnightly.

R.B. Morris and staff

Psychology 302a

Psychology of language. An examination of current theories and research relevant to the psychological aspects of language, including such topics as language development, mental representation, generation and comprehension of language, and the relation between cognition and language. Prerequisite: *Psychology 215* or permission of the department. Two-hour lecture or laboratory and one-hour seminar weekly. (Students may not count both the former *Psychology 302* and *Psychology 302a* for credit.)

P. Watson

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, consciousness, and memory. Prerequisite: *Psychology 215* or permission of the department. Three hours weekly consisting of lecture or laboratory. (After 1986 students may not count both the former *Psychology 302* and *Psychology 306* for credit.)

D.G. Lowe

Psychology 312b

Special topics in research methodology. A course designed to allow in-depth study of methods of empirical research involved in a specific area of the discipline. Also included will be an introduction to computer analysis of empirical data. A major component of the course is the completion of a group

research project. Prerequisite: *Psychology 215* or permission of the department. Two-hour lecture and one-hour workshop weekly.

P.T.P. Wong

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 400* 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* or permission of the department. Three lectures and workshop weekly. (Students may not count both the former *Psychology 311a* and *Psychology 315* for credit.)

D.J. Kennett

Psychology-Administration 322b

Organizational behaviour. (See Administrative and Policy Studies) Not counted as part of the minimum requirements for the Ordinary or Honours degrees in Psychology.

Psychology 330a

Human abilities. Integrates non-experimental and experimental approaches to the study of human abilities. Topics include theories of the structure of intelligence, the differentiation of abilities, and current perspectives (e.g., information processing) on the nature of intelligence/abilities. Special topics address sex differences, aging, and heredity/environment issues. Prerequisite: any full (or equivalent) *two-hundred* series Psychology course or permission of the department. Recommended: *Psychology 215*. Two lectures weekly; seminar fortnightly.

C.H. Ernest

Psychology 332b

Tests and measurement. A detailed, intensive examination of the principles of test construction, involving item writing, scaling techniques, item analysis, reliability and validity. Introduction to test administration and test evaluation. Prerequisite: *Psychology 215* or permission of the department. Two lectures weekly; workshop fortnightly.

G.T. Reker

Psychology 340

Abnormal psychology. A survey of deviations and disorders in behaviour as investigated by experiments and other systematic procedures. Prerequisite: any *two-hundred* series Psychology course or permission of the department. Two lectures weekly; seminar fortnightly.

F.A. Bleasdale and D.J. Kennett

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 (verbal) learning, memory, and related areas. Prerequisite: *Psychology 215* or permission of the department. Two lectures weekly; two-hour laboratory or problem session fortnightly.

C.T. Smith and C.H. Ernest

Psychology 371

Social cognition. An intensive investigation of selected areas of social cognition, including attribution processes, social inference, person perception, and the perception of emotion. A major component of the course is the completion of a group research project. Prerequisite: *Psychology 215* or *271* or permission of the department. Three to four hours of lectures, seminars, and workshops weekly.

P.T.P. Wong

Psychology-Biology 375a

Principles of the nervous system. An intensive coverage of the central nervous system, its anatomy and physiological interactions. The course emphasizes sub-cortical and cortical brain structures and their functional characteristics. Prerequisite: *Psychology 221* or permission of the department. Two lectures and two-hour laboratory weekly.

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 two-hour laboratory weekly.

Psychology-Philosophy 377a

Philosophy of mind. (See Philosophy) Not counted as part of the minimum requirements for the Ordinary or Honours degrees in Psychology.

Psychology 380

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 280* or permission of the department.

Psychology 385

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* or permission of the department. Three lectures/discussions weekly.

G.T. Reker and staff

Psychology-Biology 386b

Animal behaviour. (See Biology) Not counted as part of the minimum requirements for the Ordinary or Honours degrees in Psychology.

Psychology 390

Applied learning. The application of principles of learning and motivation to practical situations including teaching, child rearing, public institutions, and animal training. The two areas of concentration are: a) basic principles of learning and their application; b) applied projects. Prerequisite: any two-hundred series Psychology course or permission of the department. Two-hour lecture weekly; tutorial fortnightly.

R.G. Setterington

Psychology 395

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. Not sufficient as the only Psychology 300-series

Basic prerequisite for *Psychology 400*.

Prerequisite: any two-hundred series Psychology course or permission of the department. Three hours weekly.

R.B. Morris

Psychology 399

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 Ordinary or Honours degrees in Psychology. Prerequisite: *Psychology 215* and permission of the department. (See Notes)

R.G. Setterington

Psychology 400

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. While theses will normally involve original empirical research, nonempirical theses on significant conceptual problems may be permitted under exceptional circumstances. In some joint-major Honours programs the thesis course may be jointly supervised by and given credit by both participating departments. Prerequisites: *Psychology 315* (or the former *311a*); one Basic full-course equivalent of *Psychology 302a, 306, 312b* (highly recommended), *351, 375a, 376b*; all requirements of the department and university for proceeding to the fourth quarter of the Honours program and permission of the department. Corequisite: *Psychology 410*. For part-time students, *Psychology 400* and *410* are to be completed as the final requirements towards the Honours degree. P. Watson

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 400*. Corequisite: *Psychology 400*. Two-hour seminar weekly.

F.A. Bleasdale

Psychology 491a/492b/493

Special topics. Courses offered on an occasional basis, designed to explore areas of the discipline not regularly available through the department's course offer-

ings. A list of topics will be published early in the Winter Term of the preceding year. Not counted as part of the minimum requirements for the Ordinary or Honours degrees. Prerequisites: minimum 10 University-level courses; other prerequisites as required by the nature of the course; and permission of the department.

R.G. Setterington

Psychology 497a/498b/499

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. Prerequisites: same as *Psychology 400*.

R.G. Setterington

Science

Assoc. Dean P.F. Barrett is responsible for the administration of all general science courses.

Physics 150

Introductory astronomy. (Formerly *Science 200*) See *Physics 150*.

Science 220

Evolution. (Not offered this year.)

Science 240

Geology. Principles of mineralogy, petrology and sedimentology, palaeontology and structural geology; geophysics of the Earth's interior, and recent developments in geomagnetism, seismology and global tectonics. Open to students in second year and above, and to first-year students with permission of the instructor. Two hours of lectures and a two-hour laboratory session weekly, and field work.

S.H. Watts

Science-Mathematics 360

History of mathematics. (Offered in alternate years, but not this year.)

Sociology

Professor and Chair of the Department

Roy T. Bowles, B.Sc. (BRIGHAM YOUNG), PH.D. (OREGON)

Professor Emeritus

Rodney F. White, B.A., B.A.Sc., M.COMM. (TORONTO), PH.D. (CHICAGO)

Professors

Pradeep Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD, MANCHESTER), PH.D. (MANCHESTER); Alena Heitlinger, B.A. (KENT), PH.D. (LEICESTER); R. Alexander Lockhart, M.A. (SIMON FRASER), PH.D. (ESSEX)

Associate Professors

John Hillman, M.A. (OXFORD), PH.D. (SUNY, BUFFALO); Christopher V. Huxley, B.A. (YORK, ENG.), M.A. (SIMON FRASER), PH.D. (TORONTO); Frank Nutch, M.A. (HAWAII), PH.D. (YORK)

Assistant Professors

Debra M. Clarke, B.A. (TRENT), M.A. (MCMASTER), PH.D. (CARLETON) (on leave 1990-91); James R. Conley, B.A. (ALBERTA), M.A. (TORONTO), PH.D. (CARLETON); Barbara L. Marshall, B.A., M.A. (GUELPH), PH.D. (ALBERTA); Gisele M. Thibault, B.A., B.ED., M.A., PH.D. (DALHOUSIE)

Lecturers

Joanne Cook, B.A. (TRENT), M.A. (YORK); Steven Katz, B.A. (YORK), M.A. (MCGILL)

Required Courses

The single-major Honours program consists of nineteen courses. Minimum nine courses in Sociology, including *Sociology 100* or *110*

210

220

at least two *three-hundred* series courses including *321a/b** and *322a/b**; at least three *four-hundred* series courses.

Joint-major Honours program. Minimum seven courses in Sociology, including *Sociology 100* or *110*

210

220 (or 280 for SOC/CDS)

Joint-major), plus three *three-hundred* or *four-hundred* series courses, including *321a/b** and *322a/b** and at least two *four-hundred* series courses.

*Required for admission to the fourth quarter of the Honours program from 1992-93.

Single-major Ordinary program. Minimum six courses in Sociology, including *Sociology 100* or *110*

210

220, plus two *three-hundred* series courses.

Joint-major Ordinary program. Minimum five courses in Sociology, including *Sociology 100* or *110*

210

220 (or 280 for SOC/CDS

Joint-majors),

plus one *three-hundred* series course.

Notes:

The program has two tiers: foundation courses in basic areas of Sociology at the 100 and 200 level and *Sociology 400* and *Sociology 321a/b 322a/b*; and other courses in more specialized areas of Sociology at the 300 and 400 levels. The foundation courses aim to provide a basic 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* or *110* for registration in upper year Sociology courses. Students enrolling in cross-listed courses have the option to substitute minimum 60% in *Sociology 100* or *110* with minimum 60% in the prerequisite for that particular Department or Program. The prerequisite is contained in the Calendar specification for the relevant courses.

Sociology 321a/b (Research Methods) and *322a/b* (Statistics), and *Sociology 400* (Contemporary sociological theory) are highly recommended for Honours majors and those wishing to enter graduate schools.

Students are advised to take *Sociology 386* if they are intending to enter professional or graduate schools in Canada.

Students intending to enter the fourth quarter of the Honours program will finalize their courses at a meeting with the Department in the spring prior to their entry.

Four-hundred series courses are open to Sociology majors who have completed ten university level courses including *Sociology 210* and *220*, and to those with departmental permission.

Sociology 100

Introduction to social analysis. An introduction to the basic ideas of sociological analysis. Two-hour lecture, workshop weekly.

F. Nutch and staff

Sociology 110

Introduction to models in social analysis. (Not offered this year.)

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* or *110*. Lecture, workshop weekly.

J. Hillman, B. Marshall and staff

Sociology 220

Social inequality: class, gender, ethnicity. Introduction to the sociological study of social inequality, concentrating on class, gender, and ethnicity as relations of domination. The focus will be on first, the structural analysis of these social relationships, their links with each other, and their effects on societies and individuals, and second, the conditions for movements of resistance and change. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture weekly, workshop fortnightly.

J. Conley

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* or *110*. 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* or *110*. Lecture, workshop weekly.

R. Bowles and staff

Sociology 245

Culture and society. An examination of the major forms of cultural practices, ideas and beliefs in society. Topics include rituals, symbols, ideology, and their relation to social structure and process. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture, seminar weekly.

Staff

Sociology-Comparative Development 280
Society and economy. Industrialization and development in different societies. The peasantry and economic growth. Social classes, social movements and social change. The role of the state. Comparative analysis of trends in the advanced societies. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture, seminar weekly.
C. Huxley

Sociology 321a
Research methods. An introduction to the major research methods employed in sociological research. Pre- or co-requisite: *Sociology 210* or permission of the instructor. Lecture, seminar weekly.
B. Marshall

Sociology 322b
Statistics. An introduction to basic statistics and their application in sociological research. Pre- or co-requisite: *Sociology 210* or permission of the instructor. Lecture, seminar weekly.
Staff

Sociology-Administration 333a
Social organization and bureaucracy. (See Administrative and Policy Studies)
C. Huxley

Sociology 334b
Industrial sociology. Work relations in Canada. Focus on the labour process, occupational roles and ideologies; innovation and technological change, industrial conflict, collective bargaining and state policy, trade union structure, and leadership, white-collar unionism and the professions. Prerequisite: C- or higher in *Sociology 100* or *110*, or *Administration 250*. Lecture, seminar weekly.
C. Huxley

Sociology-Canadian Studies 340
Sociology of education. An examination of the structure and functions of education and their relationship to socialization, social control, social mobility and the teaching profession. Prerequisite: C- or higher in *Sociology 100* or *110* or *Canadian Studies 200* or *300*. Lecture, workshop weekly.
Staff

Sociology-Women's Studies 342
Women, men and society. An analysis of gender and gender relations. Issues examined include masculinity and femininity, domestic and paid labour, health and reproduction and the feminist movement. Prerequisite: C- or higher

in *Sociology 100* or *110* or *Women's Studies 200*. Lecture, workshop weekly.
G. Thibault

Sociology 347
Sociology of religion. An examination of the role of different religious beliefs, rituals and practices in the societies in which they arise, spread and get institutionalized. The course will study different religions as coherent belief and cultural systems, as historically changing responses to social and personal predicaments, and as organized forms of social life. This year the course introduces the religious life of early and medieval Christianity. Prerequisite: C- or higher in *Sociology 100* or *110*. Two-hour lectures, seminars fortnightly.
P. Bandyopadhyay

Sociology-Cultural Studies 350
Modern social theory. (See Cultural Studies)

Sociology 361
Deviance and social control. The subject matter of this course is disvalued people and disvalued behaviour. The focus will be on the social processes and conditions which influence the development of theory, the changing definitions of deviance and the variability in prescriptions for social control. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture, seminar weekly.
J. Cook

Sociology 363
Sociology of health and illness. An analysis of health care systems. Topics include definitions of health and illness, medical technology and health professions, health care politics and policy, and class and gender relations in health care delivery systems. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture, seminar weekly.
A. Heitlinger

Sociology 366
Analysis of social policy. An examination of the expanding role of the state in shaping socio-economic conditions and social welfare. Policy formulation and implementation will be assessed with emphasis on education, health, housing and welfare. Prerequisite: C- or higher in *Sociology 100* or *110*. Lecture, seminar weekly.
S. Lockhart

Sociology 380
State and class. (Not offered this year.)

Sociology 383a

Urban culture. An examination of urbanism as a way of life. Prerequisite: C- or higher in *Sociology 100* or *110*. (Not offered this year.)

Sociology 384b

Urban social structure. An introduction to the forces shaping the types and structures of land-use and the built environment. This will include issues such as the influence of spatial structures and relations on urban social stratification; occupational, age-group, ethnic and life-cycle related variations in urban social experience; the political economy of housing; and the political process around urban services, amenities and commercial development. Prerequisite: C- or higher in *Sociology 100* or *110*. (Not offered this year.)

Sociology-Comparative Development Studies 385

Historical sociology. An introduction to the comparative study and analysis of past societies. Elements of social structure, economic practices, political authority and the cultural symbols, beliefs and products will be studied. This year the focus is on Ancient Israel and Medieval Islamic societies. Prerequisite: C- or higher in *Sociology 100* or *110* or *Comparative Development 200*. P. Bandyopadhyay

Sociology-Canadian Studies 386

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 *110* or *Canadian Studies 200* or *300*. Lecture, seminar weekly. R.A. Lockhart

Sociology 395a

Special topics of sociological investigation.

Sociology 396b

Special topics of sociological investigation.

Sociology 400

Contemporary sociological theory. Advanced analysis of major questions in contemporary sociological theory, focusing on theories of social reproduction. In the first term, the macrosociological theories of functionalism and critical theory will be examined; in the second term, rational choice and interpretive

microsociological theories will be covered. Prerequisite: *Sociology 210* or permission of the instructor. Two-hour seminar weekly.

J. Conley

Sociology 410

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 411

Special topics on sociological theory. This year: Field methods and field studies. This course explores methodological and theoretical issues in qualitative sociology and involves a critical reading of selected field studies and ethnographies.

J. Cook

Sociology-Cultural Studies 440

Special topics in the sociology of culture and knowledge. This year the course explores the theme of culture and knowledge as social representation by examining the structuralist and Marxist traditions. In evaluating the relevance of these traditions to areas such as social order, Western imperialism, feminism and postmodern debates, the course develops the theoretical skills specific to the analysis of contemporary cultural politics. Prerequisite: *Sociology 210* or requirements of Cultural Studies Honours Program. Two-hour 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 book, newspaper and periodical publishing, radio, television, telecommunications and film. Two-hour seminar weekly.

Sociology-Women's Studies 461a

Special topics in sociological investigation. This year: Women and deviance. A study of ways in which women are labelled 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

Special topics in sociological investigation. This year: 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 *496a/b*. Two-hour seminar weekly.
G. Thibault

Sociology 480

Comparative social analysis. This year the course entails a comparative study of social structure and policy implementation in the United Kingdom, Australia and Canada. Emphasis will be placed on such policy topics as provisions of welfare according to class and gender, women's equality programs, demographic trends, immigration and child care. Prerequisite: *Sociology 210* or permission of the instructor. Two-hour seminar weekly.

A. Heitlinger

Sociology 496a

Special topics in sociological research. This year: The professions and social policy. This course examines the position of the professions in modern society with a focus on their role in policy development and implementation in such service fields as health care delivery systems and social assistance programs. Seminar weekly.

Sociology 497b

Special topics in sociological research. This year: Community context and family process. This course begins with the premise that family households of various types serve as an important base of social and economic adaptation for many people. It will examine the interface between household and community with attention to community size and location, networks of health and social service organization, the importance of kin and informal networks, and related phenomena. Seminar weekly.

R. Bowles

Reading Courses

Both full- and half-year reading courses are available as *Sociology 390, 391a/b, 392a/b, 490, 491a, 492b*. Registration in reading courses is contingent on instructor's permission and departmental approval in advance of course registration.

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)

Vanier Chair**Vanier Professor**

T.H.B. Symons, O.C., B.A. (TORONTO), M.A. (OXFORD), LL.D. (CONCORDIA, DALHOUSIE, LAURENTIAN, MOUNT ALLISON, NEW BRUNSWICK, PRINCE EDWARD ISLAND, TRENT, WILFRID LAURIER, YORK), D.U. (OTTAWA), D.LITT. (COLOMBO), DIPLÔME D'ETUDES COLLÉGIALES (DAWSON), F.R.S.C.

The present occupant of the Vanier Chair is Professor T.H.B. Symons, founding President of Trent University. Professor Symons is perhaps best known for his two publications, *To Know Ourselves* (1975) and (with James Page) *Some Questions of Balance* (1984), both of which have sparked considerable interest and controversy within the Canadian university community. He is also the author of publications dealing with human rights, international relations, language policy, education, native and northern studies, cultural pluralism, and other aspects of public policy in Canada. Professor Symons has served as Chairman of the Commission on Canadian Studies (1972-1984), Vice-President of the Social Sciences and Humanities Research Council (1978-1984), Chairman of the National Library Advisory Board (1987-1989), Chairman of the Ontario

Human Rights Commission (1975-1978), Chairman of the International Board of United World Colleges (1980-1986), Chairman of the Association of Commonwealth Universities, as a member of the Federal Cultural Policy Review Committee (1979-1982) and of the Canada Council (1976-1979), and as Chairman of the Canadian Polar Research Commission Study (1988). Since 1978 he has been a member of the Advisory Committee on Academic Relations for the Department of External Affairs and, since 1982, Special Adviser on Human Rights to the Secretary of State. He is currently Chairman of the Historic Sites and Monuments Board of Canada, and of the National Statistics Council. See Vanier Seminar, *Canadian Studies-Cultural Studies* 413.

Women's Studies

Associate Professor and Chair of the Program

J. Sangster, B.A. (TRENT), M.A., PH.D. (MCMASTER)

Associate Professor

Christl Verduyn, B.A. (TRENT), M.A., PH.D. (OTTAWA)

Associated Faculty

Anthropology, L. Hubbell; *Canadian Studies*, M. Lacombe; *Sociology*, 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 19 or 20 full courses, depending upon the number of courses required by the paired discipline. Minimum seven courses in Women's Studies including *Women's Studies* 200
Women's Studies 300
Women's Studies 400
three other core courses. One other course, core or support.

Joint-major Ordinary program. Minimum five Women's Studies courses, including *Women's Studies* 200
Women's Studies 300
two other core courses, one other

course, core or support.

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 Ordinary 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 200

Introduction to women's studies. An interdisciplinary introduction to women's studies; issues to be examined include sex vs. gender, definitions of feminism, and the impact of contemporary feminism. Lecture, seminar weekly. Open to second-year students; first-year students must obtain permission from the Program.

J. Sangster and staff

Women's Studies-Canadian Studies 275

Women in Canada. (See Canadian Studies)

M. Lacombe

Women's Studies-Canadian Studies 280

Canadian women's writing. Fiction writing by women in both English Canada and Quebec with special emphasis on contemporary works and on new feminist literary and linguistic theories. Lecture weekly; seminar weekly.

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* 200 or permission of instructor.

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-Sociology 342

Women, men and society. (See Sociology)

Women's Studies 390, 391a, 392b

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, 396a, 397b
Special topic. Contact Program Office.

Women's Studies 400
Feminist praxis. Feminist movements and forms of organization. Comparison of third world/developing world women's perspectives with North American and first world women's perspectives.

Women's Studies-Anthropology 422
Women: an anthropological perspective. (See Anthropology)

Women's Studies-Sociology 461a
Special topics in sociological investigation. (See Sociology)

Women's Studies-Sociology 462b
Special topics in sociological investigation. (See Sociology)

Women's Studies-English 475
Advanced studies in American literature. (See English)

Women's Studies 480
Reading course. Consult Program Office for registration and procedure.

Women's Studies 495
Honours thesis. Single credit. Consult Program Office for information and procedure.

Support courses

Women's Studies Program Support
Courses are subject to yearly variation. Contact Program Office for current year's listings.



Graduate Academic Calendar

(See Undergraduate Academic Calendar for listing of observed holidays)

Spring Term 1990

May	7	Monday	Registration for Spring Term
June	1	Friday	Spring Convocation

Fall Term 1990

September	4	Tuesday	Registration for Fall Term
September	14	Friday	<i>Last date for oral examinations for Fall Convocation</i>
September	21	Friday	<i>Last date for submission of Master's theses to Office of Research and Graduate Studies for Fall Convocation</i>
September	24	Monday	<i>Last date for recommendations for Master's degrees for Fall Convocation</i>
October	20	Saturday	Fall Convocation

Winter Term 1991

January	7	Monday	Registration for Winter Term
April	12	Friday	<i>Last date for oral examinations for Spring Convocation</i>
April	19	Friday	<i>Last date for submission of Master's theses to Office of Research and Graduate Studies for Spring Convocation</i>
April	22	Monday	<i>Last date for recommendations for Master's degrees for Spring Convocation</i>
May	6	Monday	Registration for Spring Term
May	31	Friday	Spring Convocation

Graduate Study at Trent University

Postal Address:

Office of Research and Graduate Studies
Trent University
Peterborough, Ontario
K9J 7B8

Telephones:

Office of Research and Graduate Studies
..... (705) 748-1245
C.H. Taylor, *Associate Dean for
Research and Graduate Studies*
..... (705) 748-1478
Mrs. P. Strode, *Graduate Studies
Officer* (705) 748-1346

Telex:

06-962824

Location:

Room 2.69, Otonabee College,
Nassau Campus

Administration

The Office of Research and Graduate Studies is responsible for the administration of graduate degree programs offered at Trent University and the co-ordination of promotion of research and scholarship within the University.

The Office is administered by the Associate Dean for Research and Graduate Studies and the Graduate Studies Officer and University Research Officer in co-operation with University committees for specific areas.

The Committee on Graduate Studies consists of members of faculty from various disciplines, and this body makes executive decisions regarding graduate admissions and the application of general regulations, standards and procedures.

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, and the Master of Science in Watershed Ecosystems and Freshwater Science.

The Anthropology program stresses Archaeology. Trent's new program in Canadian Heritage and Development Studies involves study in one of three interdisciplinary areas: Native Studies; Environmental and Heritage Studies; Regions and Regionalism.

Graduates in Biology, Geography, or Environmental Science may enrol in Trent's Watershed Ecosystems Program. In addition, graduates in Chemistry, Physics, Biology and Geography may enrol in Freshwater Science which is a special emphasis program administered by the Watershed Ecosystems Program. These students will receive a Master of Science in their specialities with a notation of Emphasis in Freshwater Science.

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.

Development of New Program Proposals

During the past few years, the Graduate Studies Committee has fostered the development of umbrella-type graduate

programs within the broad academic areas of the humanities and social sciences. This has led to new interdisciplinary programs, Canadian Heritage and Development Studies (1986-87) and Methodologies for the Study of Western History and Culture (1988-89).

Application

Initial enquiries concerning graduate study at Trent University may be made to the departments which offer 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 con-

sideration 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.

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 fulfilment 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 Master's program may be admitted to a make-up or *Qualifying Year*. Applicants possessing undergraduate degrees which are comparable to an Ordinary (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 Master's 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, U.S.A.
- b) TOEFL, Educational Testing Service, Princeton, New Jersey 08540, U.S.A.

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, N.J. 08540, U.S.A. Students are expected to make their own arrangements and will bear the cost of taking the Graduate Record Examinations.

Master's 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.

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 univer-

sity 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.

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 students beyond second year, and part-time students beyond third 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, etc.

A student may change from full-time to part-time status only prior to the end of his/her first year of study. Such a change requires the written consent of the student's supervisor.

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 reregister. Such a change requires the written consent of the student's supervisor.

Inactive

Graduate students who have completed their residence requirements may register as inactive if they have been permitted by the Graduate Studies Officer to discontinue their studies temporarily for personal or other reasons. Permission may be granted only if after their return the student will still be able to complete the requirements of their degree program within the time allowed.

Note: An inactive student will not normally be excused term fees.

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. 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 three 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. (Note: see regulations pertaining to full-time/part-time status.)

In the case of full-time students, the completion of course work is an absolute requirement by the end of two years in order to continue on in the program. After two and one-half years in the program a warning will be given regarding the three year limit. Failure to complete course work or degree requirements within the established time limits will result in an automatic deregistration from the program.

Extension of Time Limits

No extensions of the prescribed time limits will be granted except under extraordinary 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 graduate student is required to have college affiliation, as a resident or non-resident. In addition, a graduate student may apply to become a member of the Senior Common Room in the college of his or her choice. Part-time graduate students are automatically members of the Julian Blackburn Centre, unless they opt to pay a college membership fee for one of the other colleges.

Non-residents are encouraged to enter fully into the life of their colleges, and

accordingly make considerable use of college facilities. A fee of \$49 is payable by all non-resident students (other than those who are members of JBC) in addition to the academic fee. Members of JBC pay a fee of \$16.

Residence Accommodation

A limited number of residence spaces are reserved for first year graduate students. The rooms offered are in predominantly undergraduate residences and the time of occupancy is normally the undergraduate academic year. Graduate room allocations are made by the Office of Research and Graduate Studies. All rooms must be confirmed by July 6, 1990 by completion of a College Application Form and payment of a residence deposit in the amount of \$100.

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 program director, or his delegate, one member of the program, and one member from outside the program but in a related field, 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 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 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 fall and spring convocations 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. This is the minimum course requirement for Master's students. 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 by the last day in October.

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 Vice President (Academic) 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 co-operation 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 ap-

plication 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.

Thesis Oral Examination

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. The time and place of the defence will be set by the director of the program, after consultation with the candidate, normally about three weeks after the completed thesis has been submitted to the program.

The Examining Committee shall be approved by the Graduate Studies Officer in consultation with the director of the program to which the candidate is attached, and with the student's supervisor. The Examining Committee shall include:

1. the director, or his delegate, of the program to which the candidate is attached, who shall be chairman of the Examining Committee;
2. the candidate's supervisor;
3. an external examiner;
4. additional members as deemed desirable by the program director and the Graduate Studies Officer.

The role of the Examining Committee shall be:

- a) to receive the thesis, and to submit individual written reports to the program director summarizing their critical evaluation of the acceptability of the thesis, prior to the oral examination. In appropriate cases a thesis may be rejected by the Examining Committee without oral examination of the candidate.
- b) to examine the candidate orally.
- c) to decide immediately following the oral examination,
 - i) that the thesis should be approved as it stands, or
 - ii) that the thesis should be approved provided certain minor revisions are made, or
 - iii) that the thesis should not be approved as it stands but may be resubmitted, or

- iv) that the thesis should not be approved.

If a unanimous decision is not reached, the chairman is responsible for submitting in writing both majority and minority reports to the Graduate Studies Officer, who will convene a meeting of the Graduate Studies Committee to determine an appropriate recommendation. The candidate will be informed orally of the Examining Committee's decision as soon as it has been made.

Regulations Governing Preparation and Distribution of Thesis

Four unbound 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.

These copies shall be distributed to the Examining Committee by the program director to whom a preliminary report of the thesis must be sent by each member of the Examining Committee before that Committee is convened for the oral examination.

Before the degree can be granted, four copies of the thesis (one original copy and three photocopies), three of which will be bound in accordance with Trent University specifications, must be supplied by the candidate to the Office of Research and Graduate Studies not later than the date indicated in the academic calendar. The first bound copy (original)

is catalogued and placed in the Library, if paper, typing, format, etc., meet with the approval of the Graduate Studies Officer and the Graduate Studies Committee. Otherwise, it is returned to the program which should require the candidate to make the recommended changes. The second bound copy is placed in the program's files, and the third bound copy is given to the candidate's supervisor for reference purposes. The remaining copy is sent to be microfilmed by the National Library of Canada.

Xeroxing or similar methods of reproduction are acceptable for the requested number of duplicate copies of the thesis to be submitted for oral examination if permanent and legible copies are produced. Theses must be bound in Trent Green with spine writing in gold. Binding arrangements are made through the Office of Research and Graduate Studies.

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 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 – 1989/90

	Full-time \$	Part-time \$
TUITION		
Canadian/Landed Immigrant		
– 1st Year (3-terms)	1,770.00	885.00
– 2nd Year (3-terms)	885.00	885.00
– ensuing years	295.00/per term	885.00 in 3rd Year then 295.00/term
Visa		
– 1st Year (3-terms)	8,185.00	n/a
– 2nd Year (3-terms)	4,092.00	
– ensuing years	1,364.00/per term	
ANCILLARY		
– Student Health Service	21.00	1.00
– Athletics	85.00	43.00
– Graduate Student Activities	27.00	11.00
– Non-resident College Fee	49.00	16.00
– Convocation Fee	10.50	5.25
Optional		
– Transportation Fee	101.25	n/a

RESIDENCE (MEAL PLAN INCLUDED)

Single	Double
\$4,029.00	\$3,813.00

Notes:

1. The University reserves the right to alter fees and fee structure.
2. Students enrolled under the Trent-Queen's agreement are assessed Queen's tuition fees and Trent's ancillary fees.
3. All students must register at the beginning of their program of study and must re-register annually until thesis and course work have been completed or until the program of study is otherwise completed. This regulation includes the year in which a student convokes.
4. Per term tuition and ancillary fees will be charged to full-time students beyond the 2nd Year (part-time students beyond 3rd Year) of a graduate program. Convocation and Transportation fees will be charged in full in the Fall Term; Health Service, Athletics, Graduate Student Activities and Non-resident College Fees will be divided between Fall and Winter terms.
5. 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 or subsequent year.

Programs of Study

Anthropology

Chair of the Department

J.R. Topic, M.A., PH.D. (HARVARD)

Graduate Director

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

Faculty

R.S. Hagman, PH.D. (COLUMBIA); C. Hamori-Torok, M.A. (BRITISH COLUMBIA), PH.D. (TORONTO): Archaeology, New World prehistory, science and archaeology, history of archaeology, Meso-america and lower Central America; H.S. Helmuth, D.SC., DR.HABIL. (KIEL): Physical anthropology, osteology; Germany, North America, Maya; L.J. Hubbell, M.A., PH.D. (CALIFORNIA-BERKELEY); 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; K.E. Kidd, M.A. (TORONTO), F.R.A.I.; R.D. Powell, LIC. EN HISTORIA (CORDOBA), PH.D. (MCGILL); J.K.-F. So, M.A., PH.D. (SUNY, BUFFALO); M.J. Tamplin, B.A. (TORONTO), M.A. (LONDON), PH.D. (ARIZONA): Paleoecology, typology (lithic), computer applications; Boreal Forest, Botswana, Africa; E.M. Todd, B.A. (TORONTO), PH.D. (NORTH CAROLINA); J.R. Topic, M.A., PH.D. (HARVARD): Archaeology, complex societies; Peru, South America; T.L. Topic, M.A., PH.D. (HARVARD): Archaeology, frontiers, fortifications, ceramic analysis; Andes; K.A. Tracey, B.SC. (HOWARD), D.SC. (KIEL); J.M. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA): Anthropology of art, native art and architecture of the Americas; Northwest Coast, Arctic, Northeast; R.K. Vastokas, M.A. (TORONTO), PH.D. (COLUMBIA): Visual anthropology, minority groups, culture and communication; Eastern Europe, eastern Woodlands; B.W. von Graeve, M.A., PH.D. (TORONTO)

Conjunct Professor

P.L. Storck, PH.D. (WISCONSIN)

Research Associate

Elizabeth Graham, PH.D. (CAMBRIDGE)

Research Areas

South American Prehistory

J. Topic, T. Topic

Research in South American prehistory focuses upon the evolution of social, political, and economic organization in a wide variety of environments by considering problems of warfare, trade, migration, craft production, agriculture and other selected features. Although emphasis is given to the Central Andean area, many problems are best approached from a wider perspective encompassing other regions of South America.

Paleoecology of the Americas

M. Tamplin, H. Helmuth

This research area embraces the biology and ecology of prehistoric populations in various environmental and cultural settings.

Anthropology of Art

J.M. Vastokas

The development and character of prehistoric, historic, and contemporary native art of the Americas constitute the focus of this research area. Included are problems of method and theory, especially with regard to meaning and interpretation, in the anthropological investigation of the visual arts and architecture.

Old World Prehistory

M. Tamplin

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.

Method and Theory in Archaeology

Staff

This field examines the history of the growth of archaeological interpretation in the Americas and its relation to the intellectual history of anthropology. Emphasis will be placed on the more recent developments in research design procedures and ecological studies.

Selected Themes in Canadian Archaeology

S.M. Jamieson, M. Tamplin, R.K. Vastokas

General investigations into the archaeological record of Canada, including the collection, analysis and management of archaeological materials as well as the

formulation and approach to problems in Canadian archaeology are the basis of this research area.

Mesoamerican Prehistory

P.F. Healy

Studies in Mesoamerican archaeology deal with 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.

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 and to conduct research and write a thesis in their area of interest. 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. Failure to maintain a second class standing may lead to termination of graduate status. In consultation with the supervisory committee, students shall have selected their thesis topics at the completion of their residence requirements. Normally, the deadline for completion of course work shall be the last day of the undergraduate examination period or the date specified in the syllabus, except in the case of *Anthropology 580*, where the completion date shall be set by the supervisory committee. Certain of the following courses may be repeated at the discretion of the program. 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 addi-

tional 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. In 1989-90, all eligible students received some form of financial assistance.

Courses Available to Graduate Students

Anthropology 510

Method and Theory in Archaeology (normally required)

Anthropology 520

Selected Themes in Canadian Archaeology

Anthropology 530

Problems in Mesoamerican Archaeology

Anthropology 540

Problems in South American Archaeology

Anthropology 550

Problems in Art and Architecture of the Americas

Anthropology 555

Problems in Old World Archaeology

Anthropology 560

Paleoecology of the Americas

Anthropology 570

Anthropology of Art. Theoretical problems in the study and interpretation of visual arts

Anthropology 580

Summer field work and research

Anthropology 590

Special Topics

Biology

(See Watershed Ecosystems, Freshwater Science and Trent-Queen's Programs.)

Canadian Heritage and Development Studies

The Canadian Heritage and Development Studies program is a collaborative interdisciplinary M.A. program involving faculty from Canadian Studies, Native Studies, Environmental and Resource Studies, and Administrative and Policy 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; Regions and Regionalism.

In each of these three areas, there is an interest both in the North and Heritage Management. The main emphasis will be on the research and writing of the thesis to be complemented by two graduate courses: *CHDS 500* and one of *CHDS 510*, *CHDS 520*, or *CHDS 530*.

Applications will be considered from candidates with an Honours degree in a relevant area and an interest in interdisciplinary research.

Program Director

B.W. Hodgins, B.A. (WESTERN ONTARIO), M.A. (QUEEN'S), PH.D. (DUKE)

Faculty

W.P. Adams, B.A. (SHEFFIELD), M.SC., PH.D. (MCGILL); R.G. Annett, B.S.C., PH.D. (WINDSOR); K.B. Beesley, B.E.S., PH.D. (WATERLOO); 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.SC. (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); R.D. Chambers, B.A. (MCGILL), B.LITT. (OXFORD); D.M. Clarke, B.A. (TRENT), M.A. (MCMASTER), PH.D. (CARLETON); D.C.A. Curtis, M.A. (QUEEN'S), PH.D. (MCGILL); C.A. Danysk, B.S. (CONCORDIA), M.A. (MCGILL); M.S. Dockstator, B.S.C. (WATERLOO), LL.B. (YORK); J.D. Driscoll, M.A., PH.D. (QUEEN'S); F.M. Helleiner, M.A., PH.D. (WESTERN ONTARIO); L.J. Hubbell, M.A., PH.D. (CALIFORNIA-BERKELEY); 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); K.E. Kidd, M.A. (TORONTO), F.R.A.I.; H.M. Kitchen, M.A. (MCMASTER); M. Lacombe, M.A., PH.D. (YORK); J.P. LaPointe, B.A. (R.M.C.), M.A. (MCGILL); R.A. Lockhart, M.A. (SIMON FRASER), PH.D. (ESSEX); J.S. Marsh, B.A. (READING), M.SC. (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.S. Milloy, B.A. (ST. PATRICK'S), M.A. (CARLETON), PH.D. (OXFORD); D.R. Morrison, M.A. (SASKATCHEWAN), D.PHIL. (SUSSEX); G.A. Nader, B.A. (LONDON), PH.D. (DURHAM); R.J.D. Page, M.A. (QUEEN'S), D.PHIL. (OXFORD); R.C. Paehlke, 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. (MCMASTER); 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); C.H. Taylor, M.A. (CANTERBURY), PH.D. (MCGILL); 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); B.W. von Graeve, M.A., PH.D. (TORONTO); J.H. Wadland, M.A. (WATERLOO), PH.D. (YORK); K. Walden, M.A., PH.D. (QUEEN'S); A.L. Wernick, B.A. (CAMBRIDGE), M.A. (TORONTO); T.H. Whillans, B.A. (GUELPH), M.SC., PH.D. (TORONTO); A. Wilson, M.A. (DALHOUSIE), PH.D. (TORONTO).

Regulations

The general regulations and requirements of Trent University for the M.A. degree apply to the Canadian Heritage and Development Studies Program. 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 the course work and must pass an oral examination in defence of the thesis. Additional requirements appropriate to the candidate's field may be specified by the supervisory committee.

Courses**CHDS 500**

The Frost Centre Colloquium: The diverse practicality, philosophy and methodology of interdisciplinary Canadian research. Research component and weekly seminar.

B.W. Hodgins

CHDS 510

Native Studies: This course emphasizes community-based research perspectives which are sensitive to the cultural milieu in exploring the evolving relationship between native people and mainstream social economic and political structures. Approaches considered by faculty from a variety of academic disciplines will include cross-cultural relations, economic development, cultural aspects of personal and social identity, ethnohistory, adult education and social impact assessment. Fortnightly tutorial.

J.S. Milloy

CHDS 520

Regions and Regionalism: A course in conceptual and methodological issues. How the ideas of a region can be understood and how multiple approaches permit better understanding of either one region or several within a regional system. Fortnightly two-hour seminars.

A.G. Brunger, J.E. Struthers

CHDS 530

Environmental and Heritage Seminar: The methodology, process, and issues involved in heritage and parks planning and interpretation, natural resource development and conservation including environmental and social impacts. These areas are considered from both a historic and a contemporary perspective.

J.H. Wadland, J.S. Marsh

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.

Chemistry

(See Freshwater Science and Trent-Queen's Programs.)

Classics

(See Trent-Queen's Program.)

Freshwater Science

The Freshwater Science graduate program is a collaborative Master's program involving the departments of Biology, Chemistry, 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 and detection of radioactivity in natural waters. It is primarily, but not exclusively designed for Chemistry and Physics students.

Applications will be considered from Honours graduates in any of the four 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**Associate Director**

J.W. Jury, M.Sc., Ph.D. (TORONTO)

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.; A.H. Rees, M.A., Ph.D. (CAMBRIDGE), M.A. (OXFORD), Ph.D. (LONDON),

F.C.I.C.; R.A. Stairs, B.Sc. (MCGILL), M.Sc. (WESTERN), Ph.D. (CORNELL), F.C.I.C.

Physics

J.W. Jury, M.Sc., Ph.D. (TORONTO); A.J. Slavin, M.Sc. (TORONTO), Ph.D. (CAMBRIDGE) (on leave Autumn Term 1990-91)

Biology

M. Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), Ph.D. (PRINCETON); D.C. Lasenby, B.Sc. (TRENT), Ph.D. (TORONTO)

Geography

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

Environmental and Resource Studies

R.D. Evans, B.Sc. (TORONTO), Ph.D. (MCGILL)

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.

Courses Available to Graduate Students

Freshwater Science 500

An interdisciplinary course focusing on resource aspects of the environment with particular reference to water. A lecture-seminar program, involving chemical, biological, geographical and physical aspects of water. Also includes topics on statistical analysis and experimental design and philosophy of the scientific method. Students, faculty and visitors will develop and present papers stressing applications of freshwater science.

Freshwater Science 590: Advanced Reading Course

This course involves the study of an advanced level of a topic related to, but

not directly in, the area of the candidate's thesis topic. In general, the course will be selected from the graduate course offers of the discipline of the candidate's first degree. The content and method of assessment in this course are arranged in consultation with the candidate's supervisory committee. This course often parallels similar courses at a graduate level in the traditional science departments (Biology, etc.) at other Ontario universities.

Thesis Supervision

Theses will be supervised by a committee of at least three faculty representing at least two of the departments involved in the collaborative program. The primary supervisor will be in the student's discipline, the second from the most appropriate of the other disciplines. External associates may be involved in thesis supervision. Active supervision is the responsibility of the first two supervisors. The third plays a general consultative and monitoring role.

Graduate Assistantships

Assistantships may be available for assistance in the undergraduate teaching program to students who are admitted to a full-time M.Sc. program. These may be supplemented from other sources such as research grants. It is in a student's best interests to obtain any scholarships or bursaries on his/her own behalf.

Geography

(See Watershed Ecosystems, Freshwater Science and Canadian Heritage and Development Studies Programs.)

Methodologies for the Study of Western History and Culture

The focus of this interdisciplinary M.A. program in the Social Sciences and the Humanities is upon the foundations and structures of modern knowledge in its historical and cultural contexts. Such twentieth-century developments as a growing concern with language and the media of communication, increasing self-

consciousness about the frameworks and methods of interpretation and translation, problems of method and the goals of interpretation and translation, and the emergence of reconstructive and deconstructive thinkers like Heidegger, McLuhan, Gadamer, Fish, Williams, Habermas, Rorty, Foucault, Derrida, Quine and Putnam provide evidence of a vital debate. In recent years, a considerable number of Trent faculty from the departments of Classical Studies, Cultural Studies, English Literature, History, Modern Languages, Psychology, Philosophy and Sociology have centered their research upon the ways in which contemporary approaches to and critiques of western knowledge can illuminate the study of historical and cultural issues.

Graduate students in the program will center their work on the research and writing of the thesis (to be supervised by faculty from two disciplines), and on the Methodologies Seminar which involves all students and faculty in the program.

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
(to be named)

Program Committee

C.V. Boundas, M.A., PH.D. (PURDUE); R.E. Carter, A.B. (TUFTS), M.DIV. (HARVARD), M.A., PH.D. (TORONTO); J.A. Fekete, M.A. (MCGILL), PH.D. (CAMBRIDGE); D. Gallop, M.A. (OXFORD); J.T. Gilchrist, B.A., PH.D. (LEEDS); B.J. Hodgson, M.A. (TORONTO), PH.D. (WESTERN ONTARIO); S.H.W. Kane, B.A. (CARLETON), M.A., PH.D. (TORONTO); K.H. Kinzl, PH.D. (VIENNA); L. Rubinoff, B.A. (QUEEN'S), M.A., PH.D. (TORONTO); D.F. Theall, B.A. (YALE), M.A., PH.D. (TORONTO); A.L. Wernick, B.A. (CAMBRIDGE), M.A. (TORONTO)

Adjunct Faculty

P. Bandyopadhyay, B.A. (CALCUTTA), M.A. (OXFORD, MANCHESTER), PH.D. (MANCHESTER); F. Bleasdale, B.A. (TORONTO), M.A., PH.D. (WESTERN ONTARIO); J. Bordo, B.A. (MCGILL, ALBERTA), M.A., PH.D. (YALE); R. Dellamora, A.B. (DARTMOUTH), B.A. (CAMBRIDGE), M.PHIL., PH.D. (YALE); R.A. Lockhart, M.A. (SIMON FRASER), PH.D. (ESSEX); R. Morgan, B.A. (WESTERN ONTARIO), M.ED. (O.I.S.E.), PH.D.

(TORONTO); R. Paehlke, B.A. (LEHIGH), M.A. (NEW SCHOOL FOR SOCIAL RESEARCH), PH.D. (BRITISH COLUMBIA); S. Regoczei, B.SC., M.SC., (TORONTO); S. Robson, B.A. (BRITISH COLUMBIA), D.PHIL. (OXFORD); P. Royle, M.A. (OXFORD), PH.D. (NATAL); C. Smith, B.SC. (MANITOBA), M.A., PH.D. (WATERLOO); T.H.B. Symons, O.C., B.A. (TORONTO), M.A. (OXFORD), D.U., LL.D.; D. Torgerson, A.B. (CALIFORNIA-BERKELEY), M.E.S. (YORK), M.A., PH.D. (TORONTO); J. Wadland, M.A. (WATERLOO), PH.D. (TORONTO); K. Walden, M.A., PH.D. (QUEEN'S); J. Wiseman, M.PHIL. (LOUGHBOROUGH), F.L.A.

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 methods bearing on the study of Western history and culture. Throughout, problems of value, ideology, interpretive "prejudice," language and cultural forms and situations will be focused on. Fortnightly seminar. To be taught by four faculty of the program, plus guest lecturers from other universities.

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 Freshwater Science and Trent-Queen's Programs.)

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.Sc. (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 & Resource Studies

M. Berrill, B.Sc. (MCGILL), M.Sc. (HAWAII), PH.D. (PRINCETON); R.D. Evans, B.Sc. (TORONTO), PH.D. (MCGILL); C.D. Metcalfe, B.Sc. (MANITOBA), M.Sc. (NEW BRUNSWICK), PH.D. (MCMASTER); E. Nol, B.Sc. (MICHIGAN), M.Sc. (GUELPH), PH.D. (TORONTO)

Chemistry

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.

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

J.W. Jury, M.Sc., PH.D. (TORONTO), A.J. Slavin, M.Sc. (TORONTO), PH.D. (CAMBRIDGE)

Psychology

P.T.P. Wong, B.A. (CARLETON), M.A., PH.D. (TORONTO)

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

Applications will be considered from students with undergraduate Honours degrees in Biology or Geography, or Environmental Science and an interest in interdisciplinary study within the field of Watershed Ecosystems. In addition, degrees are offered for students with backgrounds in any of Chemistry, Physics, Biology and Geography in the Freshwater Science Program, which is a major emphasis program administered by the Watershed Ecosystems Program. (See separate listing.)

Candidates will be required to undertake research on a topic that relates to the interests of some members 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

C.D. Metcalfe, B.C. (MANITOBA), M.Sc. (NEW BRUNSWICK), PH.D. (MCMASTER)

Faculty and Research Areas

M. Berrill, B.SC. (MCGILL), M.SC. (HAWAII), PH.D. (PRINCETON): *Behavioral 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*; M. Havas, B.SC. (TORONTO): *Acid precipitation, Toxicity of metals and acidification*; P.M. Lafleur, B.SC. (BRANDON), M.SC. (TRENT), PH.D. (MCMASTER): *Evaporation from forests and wetlands*; R. Jones, B.SC. (WALES), M.SC. (KANSAS), PH.D. (WALES): *Plant ecology, biogeochemistry, disturbed habitats*; D.C. Lasenby, B.SC. (TRENT), PH.D. (TORONTO): *Limnology; biological, physical and chemical aspects of lakes*; 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*; P.M. Powles, B.A. (MCGILL), M.SC. (WESTERN ONTARIO), PH.D. (MCGILL): *Ichthyology, larval and reproductive ecology of fish*; 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*

Conjunct Professors

Conjunct 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. Green, PH.D. (CORNELL): *Population statistics, Freshwater molluscs. (University of Western Ontario)*; P. Stokes, PH.D. (BRISTOL): *Cycling of metals in lakes, Algal toxicity, Lake acidification*; R.J. Cornett, B.SC. (TORONTO), PH.D. (MCGILL): *Interactions of radioisotopes with groundwater 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)*; D.R.S. Lean, PH.D. (TORONTO): *Phosphorus cycling, nutrient dynamics (Environment Canada)*; T.D. Prowse, PH.D. (CANTERBURY): *Northern rivers, particularly ice jams (Environment Canada)*.

Regulations

The general regulations and requirements of Trent University for the M.Sc. degree apply to the Watershed Ecosystems program. Candidates will be required to complete the two courses listed below and to submit a thesis on an approved topic within a maximum period of three years (five for part-time students). Candidates must attain at least a second class standing in course work, and must pass an oral examination in defence of the thesis.

Courses Available to Graduate Students**Biology-Geography 500**

Sampling design and statistics: The course presents advanced concepts in biological, geographical and environmental sample design and analysis. The lectures are focused around students' research projects and help to prepare for their thesis research. Approximately two thirds of the course is devoted to discussion of appropriate sampling strategies, assumptions of sample collection and statistical treatment of data. An introductory statistics course is required. Students are required to complete periodic assignments. The remainder of the course deals with the philosophy of science as it relates to Watershed Ecosystems and participants are required to write a short essay on their philosophy of science in relation to their research. Reading materials are provided to facilitate this portion of the course.
R. Bailey, J. Cornett

Biology-Geography 590

Advanced reading course: This course is a reading/research course. The exact format is designed by the student in consultation with the supervisory committee. For example, the exercise may be an extensive literature review, a small research project or an analysis of an existing data base. Upper year undergraduate courses offered at Trent may be taken as part of this course requirement. The final paper is written as if for publication (many papers do, in fact, go

on to be published). The subject matter of the course is designed to be relevant to the student's research but must not form an integral part of the thesis research. The papers are graded by the supervisory committee plus the program director or his designee.

Financial Support

Full financial support is sought for a maximum of four terms, normally spanning two consecutive undergraduate academic years, for any student admitted to the Watershed Ecosystems program through teaching assistantships, research assistantships or scholarships. Candidates are encouraged most strongly to apply for scholarships on their own behalf.

Further Information

Enquiries 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, normally spanning two 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 1200 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 1st November. All eligible candidates who are interested in studying at Trent are urged to apply for one of these awards.

In addition to the scholarships awarded in open competition, ten Ontario Graduate Scholarships are available each year as institutional awards at Trent University. The Graduate Studies Committee submits nominations of students who are enrolled in, or have been offered admission to, a graduate program at Trent University. Only Canadian citizens and permanent residents are eligible for institutional awards.

Natural Science and Engineering Research Council Awards

Awards 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. These scholarships are open to Canadian citizens or landed immigrants 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, 200 Kent Street, Ottawa, Ontario, Canada 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 Committee, c/o AUCC, 151 Slater Street, Ottawa, Ontario K1P 5N1, or through the Canadian High Commissioner in those countries. Persons intending to apply are advised to enquire not later than mid-October, 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, normally spanning two consecutive undergraduate academic years.

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 \$15,000 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, Computer Services and Status of Women 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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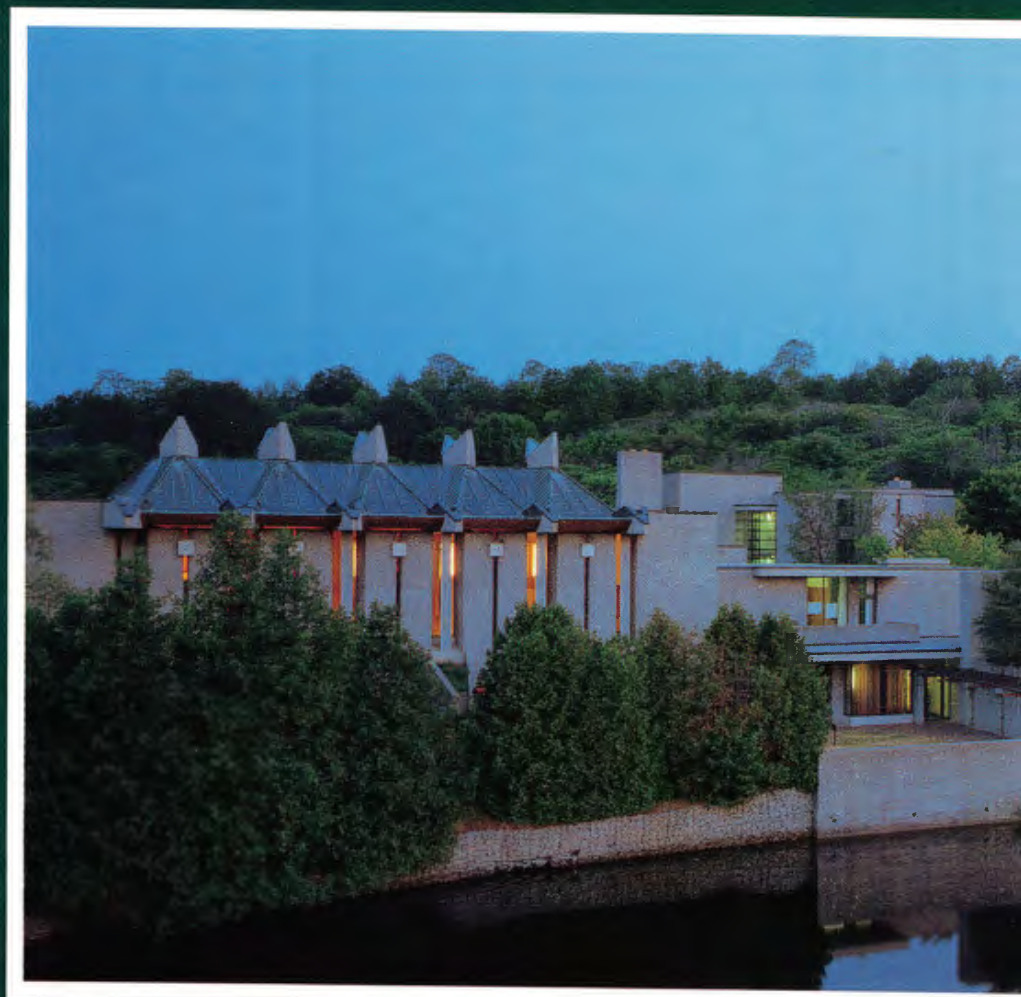
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