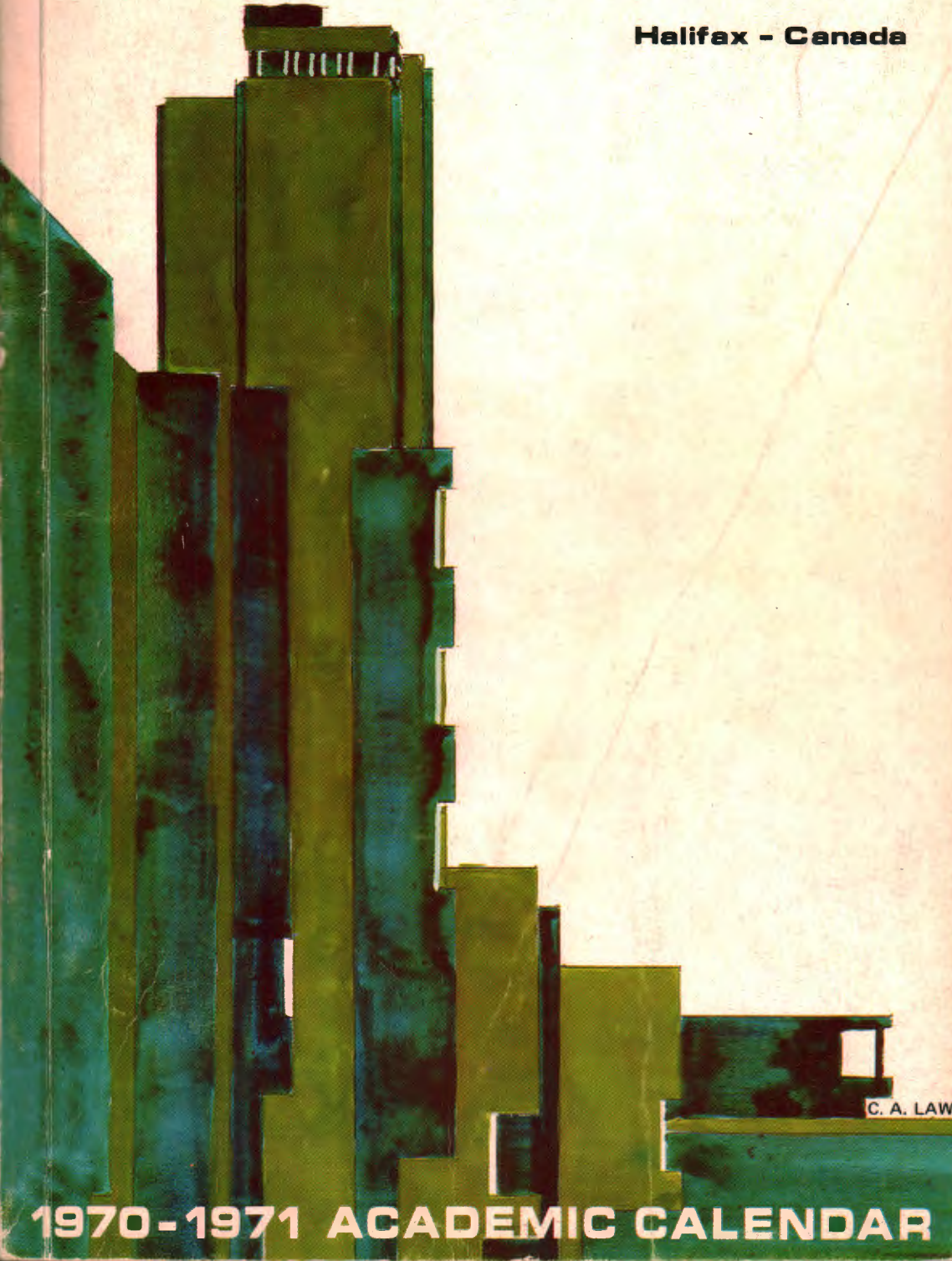


Saint Mary's University

Halifax - Canada



C. A. LAW

1970 - 1971 ACADEMIC CALENDAR



- 1. Jesuit Residence
- 2. Main Building
- 3. Canadian Martyr's Parish and Chapel
- 4. Faculty Offices
- 5. Chemistry-Biology Building
- 6. Library
- 7. Students' Center
- 8. Winter Arena and Field House
- 9. Practice Sports Field
- 10. Stadium
- 11. High Rise Residence
- 12. Low Rise Residence
- 13. Dining Hall and Swimming Pool
- 14. Canadian Martyr's Parish Center

Saint Mary's University

**General Calendar
for the academic year
1970-71**

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Academic Calendar Year 1970-1971

MAY

- 12 Tuesday Registration for first Summer Session.
13 Wednesday First Summer Session begins.

JUNE

- 26 Friday First Summer Session examinations.

JULY

- 2 Thursday Registration for second Summer Session.
3 Friday Second Summer Session begins.
10 Friday Last day for receiving applications for supplemental examinations.

AUGUST

- 14 Friday Second Summer Session examinations.

SEPTEMBER

- 3 Thursday Supplemental examinations, begin at 9:00 a.m.
8 - 11 Tues. - Fri. Registration for Evening Division students 7:00 p.m. - 8:30 p.m.
8 Tuesday General Faculty Meeting. Registration for all Fourth Year students and graduate students. 9:00 a.m. - 12:00 noon, 1:00 p.m. - 5:00 p.m.
9 Wednesday Registration for all third year students. 9:00 a.m. - 12:00 noon, 1:00 - 5:00 p.m.
10 Thursday Registration for all second year students 9:00 a.m. - 12:00 noon, 1:00 p.m. - 5:00 p.m.

11	Friday	Registration for all new students entering as sophomores 9:00 a.m. - 12:00 noon.
11	Friday	Registration for all new students entering as freshmen 2:00 p.m. - 5:00 p.m.
12	Saturday	Registration for all new students entering as freshmen - continued. 9:00 a.m. - 12:00 noon, 2:00 p.m. - 5:00 p.m.
14	Monday	Instruction begins for all classes. late registration fee of \$25.00 with an additional fee of \$10.00 for each day after this date.
18	Friday	Final date for late registration and last day for change of registration.
23	Wednesday	University day Classes. Classes close at 12:30.

OCTOBER

2	Friday	Fall Convocation.
12	Monday	Thanksgiving Day. No Classes.

NOVEMBER

11	Wednesday	Remembrance Day (no classes)
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DECEMBER

8	Tuesday	Feast of the Immaculate Conception.
18	Friday	End of Term. Patronal Feast of the University.

JANUARY

4	Monday	Classes resume at 8:30 a.m.
5 - 12	Tues. - Tues.	Registration of all students for second semester.

FEBRUARY

5 - 7	Fri. - Sun.	Senior Weekend.
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MARCH

8 - 26		Pre-registration of all students for next academic year.
13	Saturday	Charter Day.

APRIL

- | | | |
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| 7 | Wednesday | Easter recess begins after the last class. |
| 13 | Tuesday | Final examinations begin. |
| 29 | Thursday | Survey Camp begins. |

MAY

- | | | |
|----|-----------|--|
| 9 | Sunday | Baccalaureate Ceremony |
| 10 | Monday | Spring Convocation |
| 11 | Tuesday | Registration for first Summer Session. |
| 12 | Wednesday | First Summer Session begins. |

JULY

- | | | |
|----|----------|---|
| 5 | Monday | Registration for second Summer Session. |
| 6 | Tuesday | Second Summer Session begins. |
| 15 | Thursday | Last Day receiving Applications for Supplemental Examinations |

AUGUST

- | | | |
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| 18 | Wednesday | Second Summer Session examinations begin at 9:00 a.m. |
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1970

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1971

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General Information

HISTORY

Saint Mary's University had its beginnings as a small college founded in Halifax in 1802 by Reverend, later Bishop, Edmund Burke. The site of the first building was just west of the present Saint Mary's Basilica on Spring Garden Road.

Official recognition came in 1841 when "An Act Incorporating the trustees of Saint Mary's College at Halifax" was enacted by the Nova Scotia House of Assembly. Eleven years later the privileges granted in the Act of 1841 were made permanent.

In 1881, Saint Mary's received a handsome bequest from the will of Mr. Patrick Power, a prominent Halifax business man. This generosity came at a critical period in the history of Saint Mary's, since without it the institution might not have survived.

In 1903, the College was re-established on a new campus at Quinpool Road and Windsor Street in Halifax. Ten years later the Christian Brothers of Ireland assumed direction and added to the building.

In 1918, the Nova Scotia Legislature in the preamble to an Act to amend the law respecting Saint Mary's, declared that Saint Mary's, "originally incorporated by Chapter 39 of the Acts of 1841, shall continue to be deemed and taken to be a University, with all the necessary and usual powers . . . including the power of conferring Degrees in Arts and in all the other faculties."

The Jesuit Fathers assumed direction of Saint Mary's in 1940. In 1951, the University moved to a new 30 acre campus on the historic Collins estate and former Gorsebrook Golf Course in south Halifax. In 1968 Saint Mary's University became a co-educational university.

ASSOCIATIONS

Saint Mary's University is a member of the Association of Commonwealth Universities, of the Association of Universities and Colleges of Canada, of the Association of Atlantic Universities and of the Jesuit Educational Association.

Saint Mary's has been associated with the Nova Scotia Technical College since 1916 providing the first three years of courses leading to the Degree of Bachelor of Engineering in Civil, Electrical, Mechanical,

Mining, Metallurgical, Chemical, Industrial and Geological Engineering. Since 1953, Saint Mary's has been one of the institutions sponsoring the Atlantic Summer School for Advanced Business Administration. In 1955, it entered upon an agreement of affiliation with the Maritime School of Social Work. And in 1957, it affiliated Ignatius College in Guelph, Ontario, and Regis College in Toronto, Ontario, for courses leading to degrees in Arts and Sacred Theology. Also in 1957, Saint Mary's became one of the six Maritime Universities co-operating with the Nova Scotia Department of Education in the professional training of teachers.

STATEMENT OF OBJECTIVES

This University believes that its objective is to induce, in the individual student, that kind of critical thinking that will build and refine his constructive, judgemental powers towards his own free formation of a system of Christian and humanistic values and principles that can face and answer the cultural and technological challenges of the present day. This University consequently believes that traditional humanism, confirmed by the teachings of Jesus Christ, and supplemented by the scientific and professional awareness required in our time, is the best educational instrument for the making of modern Canadians.

CHRISTIAN LIFE

The University encourages its members to pursue any activities which further its aims.

Saint Mary's University is a Christian University, and as such endeavours to create a specifically Christian atmosphere. This atmosphere is one in which concerned Christians are able to search for and spell out a concretization of their convictions.

One source of this desirable atmosphere stems from the opportunities offered Students, Faculty and Administration to participate in Liturgical functions and other religious programs, and this effort must be positive and to some extent aggressive if it is to go beyond the opportunities offered on a strictly secular campus. The word aggressive is to be understood not as implying any indoctrination or interference with religious freedom but rather in the sense of leadership and example.

The Chaplain, whose function it is to coordinate religious activities and provide religious services, has an office on the fourth floor of the Student Center.

Mass is celebrated twice daily for the convenience of all, in the Liturgical Center, third floor of the Student Center, and in the Chapel on the first floor of the High Rise Residence.

A University Community Mass is celebrated Sunday evening.

Provision has been made for the celebration of the Sacrament of Penance, and for private confession.

The Bulletin and Notice Boards provide specific information concerning activities and hours of religious services.

Among projected religious programs: weekend retreats, discussion groups, a liturgical group to sponsor the University Mass.

A Calendar of Religious Events:

September: 23rd University Day

November: All Souls Day: masses for the deceased of Saint Mary's.

December: Religious Observance of the Patronal Feast, December 8, the Feast of the Immaculate Conception.

May: Baccalaureate Ceremony.

STUDENT AFFAIRS

Student Affairs comprise student activities of a non-academic nature and student personnel services.

This sector of the University includes the Offices of the Assistant to the President for Student Affairs, Dean of Men, Dean of Women, Student Health Services, University Counselling Service, Chaplains' Office, Director of Athletics, Deans of Residences and Financial Aid Officer.

The Student Affairs Department also cooperates with the Students Representative Council in compiling a list of off-campus housing which is made available to those students desiring accommodations of this nature.

The Assistant to the President for Student Affairs serves as liaison officer for the University to the Canada Manpower Centre.

The Dean of Men serves as liaison officer and University Representative to student government and student organizations.

The overall responsibility for student affairs is delegated by the President to the Assistant to the President for Student Affairs.

The Assistant to the President for Student Affairs main tasks are:

- a) to promote the educational role of the University in non-academic student activities;

- b) to further the physical, intellectual and moral well-being of the student body;
- c) to co-ordinate the activities of the various student personnel services and to supervise their development.

In the absence of the Assistant to the President for Student Affairs, the Dean of Men supervises Student Services.

The Dean of Men strives to promote the educational value of responsible student action in student self-discipline. He is available to all students for personal conferences and strives to assist students whenever possible.

STUDENT BEHAVIOUR

It is assumed that students come to the University for a serious purpose and will conform to duly established customs, policies, and rules. Students as adults must accept full responsibility for their actions. On the other hand the University cannot remain completely unconcerned about their actions. The University cannot be expected to prepare students for leadership without attempting to influence their spirit as well as their mind.

The University accepts the responsibility of creating on campus an atmosphere where students observe the elementary rules of good manners and show both self-respect and respect for others. It looks to them to display good taste in their dress, speech and general behaviour.

The University sees little need however to issue detailed regulations governing discipline since self-discipline should be the aim of each individual student. The University's few basic regulations are designed to create a favorable climate so that any individual may acquire personal self-control and build within himself a strong human spirit to guide his actions now and later as a member of society.

The University reserves the right to take appropriate action to prevent any individual or group from interfering with the learning process or to censure or penalize students who are guilty of breaches of school discipline. The registration of the student is considered an acceptance of regulations. It should be understood that the University reserves the right, not only to suspend or dismiss students, but also to name conditions under which they may remain in the University.

Attendance at all lectures, seminars, and laboratory periods of any course in which a student is registered is mandatory. A student whose attendance has been reported as unsatisfactory by the professor may be debarred from tests and examinations, or required to withdraw from a course or degree programme by the appropriate Faculty Dean.

A candidate for a degree must be of good moral character and must have given general satisfaction throughout his course.

MEDICAL AND HEALTH SERVICES

The Nova Scotia Medical Services Insurance Plan came into effect on April 1, 1969. The details of this plan may be obtained through the Department of Health, Province of Nova Scotia. The plan covers all residents of Nova Scotia.

Most other provinces have Medical Services Insurance plans similar to the one in effect in Nova Scotia and it is the responsibility of each student to insure himself in his home province.

All foreign students who are not eligible for coverage under the Nova Scotia Medical Services Insurance plan (e.g., those students who do not intend to remain in Nova Scotia for the duration of their university education) are covered by the University under a private Insurance Company.

The University has retained a medical doctor as Director of Medical Services. The doctor's office is located on campus, and his services will be available to all students.

The University accepts no responsibility for injuries or loss of time incurred by students while taking part in student activities.

All students are responsible for their own hospitalization expenses.

Notices

Bulletin-Board announcements intended for students must be in good taste. They must be placed on the bulletin boards provided. They must, in addition, be approved by the Students Representative Council.

Use of Grounds and Buildings

The use of University grounds and buildings by students is regulated by administration of the University upon the recommendation of the Assistant to the President for Student Affairs. Requests must be made through the office of the Dean of Men.

STUDENT ORGANIZATIONS

The extracurricular organizations listed below are officially recognized by the University. Students who represent the University in any public activity, dramatics, debating, oratorical contests, or athletic competition, or hold office in any student organization, must be in good standing at the time of their election or appointment.

Students' Council

It aims at promoting the best interests of the students by sharing with the Faculty the responsibilities of University government in all non-academic matters and in accordance with the powers conferred by the President.

The Christian Action Movement

Formerly the Sodality of the Blessed Virgin Mary; this organization is for those students who wish to express their Christianity through social action, and who believe that for this action to be effective it should be united with prayer and a life centered around the Eucharist.

Alpha Sigma Nu

International Jesuit Honour Society. Membership is based on both high academic achievement and contribution to serious discussion on fundamental human questions.

Tau-Gamma-Sigma Society

Is restricted to students in the Faculty of Arts. Besides social and recreational activities the Society undertakes service projects for the welfare of the University and civic communities.

Sigma-Gamma-Phi Society

Is restricted to Science and Pre-medical students. Its functions are, in general, similar to those of the Tau-Gamma-Sigma Society.

Delta-Lambda-Kappa Society

Is open to students in the Faculty of Commerce. The aim of the Society is to formulate and implement a programme of an educational, social, and recreational nature for the benefit of the members.

The Engineering Society

Is restricted to Engineering students. Its activities correspond, in general, to those of the above societies of Arts, Science, and Commerce.

The Debating Society

Is open to all students. Its activities include Intercollegiate and Interfaculty Debates, Radio Debates and Forums, etc.

Band

Open to all full-time and part-time students and faculty. Both Marches and Popular music will be played.

Amateur Radio and Electronics Club

Open to all students and faculty.

Psychology Club

The aim of this club is to promote general interest and education in the field of psychology and to provide a liaison between the psychology department and the psychology students. Informal in structure, this club serves both an academic and social function. Membership is open to any full-time student.

Political Science Association

The organization has an elected executive, nonexecutive posts, and committees at large. It is our aim to promote a social consciousness among our members to enable them to utilize their full potential as students and as citizens.

The Chemical Institute of Canada

(CIC) Student Chapter is open to all Chemistry and Chemical Engineering Students. Through affiliation with the National organization, an educational and social programme is provided together with opportunities for closer contact with the faculty.

MILITARY SERVICE SCHOLARSHIPS

1. The high professional ability required of present-day military officers demands the best in education and training. The Department of National Defence therefore sponsors programs of university education and leadership training for selected young men who have the potential to become officers in the Canadian Armed Forces. The admission standards are high, but for those who qualify the way is open to a challenging and rewarding career.

2. The programs sponsored are the Regular Officers Training Plan, (ROTP), Medical Officer Training Plan (MOTP), Dental Officer Training Plan (DOTP) and Reserve Officer University Training Plan (ROUTP). Training given under these plans is divided into two parts; normal attendance at university throughout academic year and military training each summer.

3. **ROTP.** This plan combines university subsidization with career training as an officer in the Regular Component of the Canadian Forces. Successful applicants are enrolled in the rank of officer cadet. They are required to maintain a good standing both academically and militarily while in the plan. All tuition and other essential fees are paid by the Department of National Defence. In addition the Officer Cadet receives an annual grant of \$125.00 to purchase books and instruments, and is paid \$193.00 per month for personal and living expenses. Free medical and dental care is provided. Annual leave (30 days plus travelling time) with full pay and allowances may be granted each year, usually after the summer training period. On graduation the Officer Cadet is promoted to the commissioned rank of Lieutenant.

4. **MOTP.** Sponsorship is provided under the Medical Officer Training Plan during the 2nd, 3rd and 4th year medicine and internship year. It consists of paid tuition, \$125.00 annual book and instrument grant, complete medical and dental coverage, paid holidays and monthly pay of 2nd Lieutenant \$389.00 in academic years and \$689.00 in the internship year. Three years military service in Canadian Armed Forces starting with the rank of Captain is required upon obtaining your licence to practice medicine.

5. **DOTP.** Sponsorship is provided under the Dental Officer Training Plan during the 1st, 2nd, 3rd and 4th year dentistry. Subsidization consists of paid tuition, \$125.00 annual book and instrument grant, complete medical and dental coverage, paid holiday and monthly pay of \$193.00 in 1st year, \$389.00 in 2nd year, 3rd and 4th year. Five years military service in the Canadian Armed Forces starting with the

rank of Captain is required upon receiving your licence to practice dentistry.

6. **ROUTP.** This plan provides an opportunity for selected undergraduates to prepare themselves for promotion to commissioned rank in the Reserve Component of the Canadian Forces. They are selected during the first months of the University year by the local Reserve Unit and are enrolled as Officer Cadets in the Primary Reserve. Cadets receive pay for training completed at local Reserve Units during the academic year (up to 15 days) and at training bases during the summer (up to 16 weeks).

7. **ADMISSION REQUIREMENTS.** An applicant must:

- a. be a Canadian citizen;
- b. be single and remain so until commissioned (ROTP only), MOTP, DOTP and ROUTP applicants may be married;
- c. be physically fit for enrolment in the Forces; and
- d. if ROTP, be between the ages of 16 and 21 on the first of January of the year he commences first year studies at University; if MOTP and DOTP, be between the ages of 17 and 38; ROUTP from 17 to 23.

8. **HOW TO APPLY.** Interested students are requested to contact one of the following:

Commanding Officer	or University Liaison Officer
Canadian Forces Recruiting Centre	Canadian Forces Base Halifax
Sir John Thompson Building	FMO
1256 Barrington Street	Halifax NS
Halifax NS	

for ROUTP – Commanding Officer of your local reserve unit.

The Department of Manpower and Immigration

Canada Manpower Division – in co-operation with Saint Mary's University, maintains a full-time Student Placement Office on the campus on a year-round basis. The purpose of this office is to assist graduates and undergraduates to obtain permanent, summer or part-time employment, and to assist local and national employers who wish to recruit at Saint Mary's University.



Financial Aid

Scholarships and Bursaries

Financial assistance is available to students at Saint Mary's University from three main sources: **scholarships**, bursaries, and Canada Student Loans. The scholarships and bursaries are administered directly by either the donor or the Director of Financial Assistance at Saint Mary's University. Loans are administered by the student's provincial government in accordance with the Canada Student Loans Plan.

All financial aid is dependent on a student's satisfactory academic achievement when entering and while studying at the university. The award of scholarships, and in some instances of bursaries, as well as the renewal of such awards, is dependent on excellence in academic achievement.

FUNDS ADMINISTERED BY SAINT MARY'S UNIVERSITY

I. Scholarships

Scholarships are awarded annually to students of outstanding academic achievement when entering or while studying at the university.

Awards of up to \$1,000 are offered to students of excellent academic achievement when entering the university. Such students who wish to make application for scholarships must have an average of 80 per cent or over in their high school work. In addition, special awards are made annually to leading students in the graduating classes at Saint Patrick's High School, Halifax, Nova Scotia, Saint Malachy's High School, Saint John, New Brunswick, Gonzaga High School, St. John's, Newfoundland, and Brother Rice High School, St. John's, Newfoundland. An annual award is also given to a Catholic student from Moncton, New Brunswick.

Students who have completed one or more years in a university are also eligible for scholarships even though they were not given an award at entry. All students who have an average of at least B in their university work are eligible to apply for these awards.

Each scholarship is awarded on merit for one year only. However, scholarships will be renewed each year provided academic achievement is maintained. Applications for awards or renewal of awards must be made by June 30th each year.

Included in the scholarships administered by Saint Mary's University are the following endowed gifts:

Brother Stirling Scholarship (\$600):

Donated by Mr. John H. Dickey. Open annually to an entering student.

Ashwood Scholarship (\$200):

Open annually to all students.

Flinn Scholarships (Two awards of \$250):

Open annually to all students.

Mary C. Daley Scholarship (\$100):

Awarded in alternate years. Open to all students.

Eleanor M. Florian Scholarship (\$300):

Open annually to all students.

Duncan W. Lynch Memorial Scholarship (\$400):

Open annually to a Catholic student from Dartmouth.

John Glenister Memorial Scholarship (\$150):

Open annually to all students.

Nova Scotia Light and Power Company Scholarship (\$300):

Open annually to a Science or Engineering student.

James E. Donohue Memorial Scholarship (\$100):

Open to students in Engineering and awarded in alternate years.

Nova Scotia Teachers' College Scholarship (\$500):

Open annually to graduates of the Nova Scotia Teachers' College.

II. Bursaries

Students giving satisfaction in academic work, though not of scholarship standing, are given financial aid through bursaries and assistantships. In these cases the criterion for an award is financial need. As part of this program the University assists students at the Bishop Burke House in Halifax in the payment of their tuition fees and remits part of the charges to residence students from parishes in the Archdiocese of Halifax. In addition, a number of positions as course readers and laboratory demonstrators are open annually to Junior and Senior students; remuneration is based on hours of employment. All inquiries concerning bursaries and assistantships should be made to the Director of Financial Assistance.

Included in the bursaries administered by Saint Mary's University are the following endowed gifts:

Rebecca Cohn Memorial Bursary (\$100):

Open annually to all students.

Bernard Zwicker Memorial Bursary (\$150):

Donated by Mr. and Mrs. Ivan Zwicker in memory of their son. Awarded in alternate years commencing 1969-70. Open to a student in the Commerce Faculty.

Lord Nelson Hotel Ltd. Bursary (\$250):

Preference will be given to applicants from the Atlantic Provinces. Open annually to students in either their Freshmen or Sophomore year.

The Institute of Chartered Accountants of Nova Scotia Centennial Bursary:

A bursary to be held by a student in any faculty, under the following conditions: the student must be a resident of Nova Scotia wishing to further his postgraduate education by entering the accounting profession with the intention of becoming a Chartered Accountant in Nova Scotia; the student must be in either of the last two years of his course; ability and financial need are taken into consideration in making the award.

The Birks Family Foundation Bursaries:

The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian universities. The bursaries are available to all full-time students recommended by the university. The numbers and amounts of such awards may vary annually, depending upon the funds available from the Foundation for the purpose.

FUNDS ADMINISTERED BY THE DONOR

I. Scholarships

Scholarships are offered in varying amounts up to full coverage of tuition fees. They include:

School of Education Scholarships:

The province of Nova Scotia, through arrangement with the University, offers a number of scholarships to university graduates taking the degree of Bachelor of Education. Application for these scholarships should be made in writing to the Dean of the School of Education, Saint Mary's University.

The Canadian Mathematical Congress Scholarships:

The Canadian Mathematical Congress offers a number of scholarships for students of Grade XII in the Nova Scotia schools on the basis of a competitive examination usually held early in May of each year. The amount of each award is determined by consideration of financial need based upon applications from the

leading candidates. These are tenable at any university in Canada. Further information is available from the guidance departments of the various high schools.

Imperial Oil Ltd. Scholarships:

Imperial Oil Ltd. offers payment of tuition and other compulsory fees to all children or wards of employees and annuitants who proceed to higher education courses. The courses must be taken at any Canadian university or other approved institution of higher learning. Each award is tenable for a maximum of four years. To be eligible a student must attain an average mark of 70 per cent in the appropriate secondary school examinations in the subjects required for admittance to the approved institution. Further information and application forms may be obtained from the Secretary, Committee on Higher Education, Imperial Oil Limited, 111 St. Clair Avenue West, Toronto 7, Ontario.

General Foods Scholarships:

General Foods Limited has established two scholarships in the sums of \$2,000 (over a four year period). These awards were first presented in 1965 and 1966, and thus are again being made in 1969 and 1970. For further information contact the Director of Financial Assistance at Saint Mary's University.

Joe Gannon Memorial Scholarship:

Valued at \$500, and awarded to the son, daughter or legal ward of a trade unionist who is a member of a union affiliated to the Nova Scotia Federation of Labour. Applications should be addressed to Selection Committee, c/o Nova Scotia Federation of Labour, 530 Roy Building, Halifax, Nova Scotia.

Municipal School Board, Halifax County, Scholarships:

Four awards of \$100 are made annually to students who have been accepted by the Education Faculty of a Maritime university. Restricted to residents of Halifax County. Further information may be obtained from Municipal School Board, P.O. Box 90, Armdale, Nova Scotia.

Canadian University Students' Scholarships:

Annual awards by Canadian University Students enable specially selected students to take one year of their course at a university in a different part of Canada.

Many parishes and parish organizations offer scholarships to deserving students. Students interested in such scholarships should make inquiries from their parish or the parish organization concerned. These awards include:

Saint Agnes Parish Holy Name Society Scholarship (\$100).

Saint Joseph's Parish Scholarships:
Two awards, one of \$100 and one of \$150.

Saint Mary's Basilica Parish:
The Monsignor Carroll Memorial Scholarship (\$300).

Saint Peter's Parish Holy Name Society Scholarships:
These awards vary in number and value.

Saint Rose of Lima Parish Holy Name Society Scholarship (\$100).

Saint Stephen's Parish Scholarships:
Four awards of \$100.

Saint Stephen's Educational Association Scholarships:
Three awards of \$100.

The Home and School Association of various schools offer scholarships to deserving students. Students interested in such assistance should seek further information from their respective Home and School Association. These awards include:

Bedford Home and School Association Scholarship (\$100).

Oxford Home and School Association (\$50).

Saint Thomas Aquinas Home and School Association Scholarship (\$100).

In addition, many councils of the Knights of Columbus offer scholarships to deserving students. Students interested in such scholarships are advised to direct inquiries to the council in their area. These awards include:

Knights of Columbus Council 1097 (Halifax) Scholarships:
Seven awards of \$150.

Knights of Columbus Council 2181 (Yarmouth) Scholarship (\$200).

III. Bursaries

Assistance for students in financial need is available from various sources, including the following:

The Birks Foundation Bursaries:

Each year the Birks Family Foundation pays the tuition and fees of all children of its employees in attendance at Canadian universities. On or before September 30 of each year the Birks employee should file with the Foundation an Application of Intent to enroll his son or daughter in a university of his choice in the ensuing year. In the case of a student who wishes to continue his studies on a Birks grant, notification should be given to either the Foundation or the Director of Financial Aid at the end of each school year.

Royal Canadian Legion Bursaries, Nova Scotia Command:

Four bursaries, valued at \$350 and \$400, are offered annually. Established to assist dependents of veterans to further their education. Applications available from L.M. Rhodenizer, Education Committee, New Glasgow, Nova Scotia.

Children of War Dead (Education Assistance) Act:

This Act provides fees and monthly allowances for children of veterans whose death was attributable to military service. Inquiries should be directed to the nearest District Office of the Department of Veterans Affairs.

I.O.D.E. Second War Memorial Entrance Bursaries:

One for each Province, \$400 a year for four years. Awarded to children of deceased or permanently and seriously disabled Canadian men and women of the services who served in World War II. Further information is available from I.O.D.E. Educational Secretary, 301 Spring Garden Road, Halifax, Nova Scotia.

Provincial Chapter of Nova Scotia, I.O.D.E.:

A number of bursaries are awarded to university students in need of financial assistance. Preference is given to first-year students. Further information is available from Provincial Educational Secretary, I.O.D.E., 301 Spring Garden Road, Halifax, Nova Scotia.

The Post Discharge Rehabilitation Grants:

Ex-service personnel seeking educational grants should contact the Director of Financial Assistance at Saint Mary's University. If accepted to the University, they will be given a letter with which to support their application to the Department of Veterans' Affairs.

FUNDS ADMINISTERED BY THE PROVINCIAL GOVERNMENT

The University cooperates fully with both the Canada Student Loans Plan and the Nova Scotia Bursary - Canada Students Loans Programme.

Canada Students Loans Plan

The Canada Student Loans Plan was introduced by the Federal Government as a broad programme to assist students who in the absence of a loan, would be unable to pursue full-time post-secondary studies at a university or other educational institution. Canada Student Loans, available only on the basis of Certificates of Eligibility issued by the appropriate authority (Issuing Agency) for a Province, may be made by any branch of the chartered banks and by certain designated credit unions with the guarantee of the Federal Government.

Applications for Certificates of Eligibility must be made to provinces participating in the plan, and decisions on individual applications are made by the provincial appropriate authority (Issuing Agencies). Students applying for certificates who meet residence and other requirements must also demonstrate that the financial means available to them from all other sources are insufficient so that a guaranteed loan is needed. In no case will a loan for an academic year exceed a maximum of \$1,000, or total loans exceed \$5,000 during the student's academic career. Provincial authorities may issue Certificates of Eligibility under the plan up to the limits of provincial allocations in each loan year.

Borrowers under the plan are required to repay principal and pay interest, but no payments are required as long as they are full-time students at a specified post-secondary educational institution and for six months thereafter; interest during this period is paid by the Federal Government on behalf of the student. After a student's interest-free period has expired, he is required to make regular monthly payments which include re-payment of principal and interest on the outstanding balance at the rate that is in effect for student loans at the time that the student takes his loan out. The number of years over which a loan may be repaid depends on the loan amount and other considerations, but may not exceed ten years from graduation.

A student should apply for a loan under this plan only for the funds needed to enable him to continue his studies and in doing so he should give responsible consideration to the repayment obligations he is assuming; a student who actually borrowed the maximum of \$5,000 would, for instance, be obligating himself to pay, after the expiry of his

interest-free period, about \$58 each month until ten years after he leaves the university.

Any student needing a Loan should apply to the appropriate authority in the province in which he officially resides both for full information and application form. Enquiry should be directed to one of the following addresses:

Nova Scotia	Canada Student Loans Committee, Department of Education, Box 578, Halifax, Nova Scotia.
Alberta	Students Assistance Board, Department of Education, Administration Building, Edmonton, Alberta.
British Columbia	The British Columbia Student Aid Loan Committee, c/o Department of Education, Parliament Buildings, Victoria, British Columbia.
Manitoba	Department of Youth and Education, Student Aid Officer, 1181 Portage Avenue, Winnipeg 10, Manitoba.
New Brunswick	Department of Youth, Centennial Building, Fredericton, New Brunswick.
Newfoundland	Canada Student Loans Authority, Department of Education, Confederation Building, St. John's, Newfoundland.
Northwest Territories	Director of Education for the Northwest Territories, Department of Education, Yellowknife, Northwest Territories.
Ontario	Department of University Affairs Student Awards Officer, Suite 700, 481 University Avenue, Toronto 2, Ontario.

Prince Edward Island	Canada Student Loans Committee, Department of Education, Charlottetown, Prince Edward Island.
Quebec	Office of Student Aid Services, Department of Education, Parliament Buildings, Quebec 4, Quebec.
Saskatchewan	Department of Education, Avord Tower, Victoria Ave. & Hamilton Street, Regina, Saskatchewan.
Yukon Territory	The Students Financial Assistance Awards Committee, Superintendent of Education, Box 2703, Whitehorse, Yukon Territory.

Nova Scotia Government Bursary — Canada Student Loans Programme

This programme combines loan assistance, available through the Canada Student Loans Plan, and grant assistance, available from the Province of Nova Scotia. It is designed to supplement the resources of a student who, lacking such aid, would be unable to proceed to university studies. The ratio of grant to loan is determined in accordance with a formula fixed by the Province of Nova Scotia.

The Canada Student Loan portion of the award is guaranteed by the Federal Government. No interest or payments on principal are required during the period that the student is in full-time attendance at the university and for six months thereafter. The interest during this period is paid by the Federal Government.

The maximum amount available under the Canada Student Loans Plan is \$1,000, in any one year, and the total indebtedness permitted is \$5,000. With the addition of free grants from the Province of Nova Scotia, the maximum assistance a student receives in any year may exceed \$1,000, depending on the formula in effect in the year of application.

Assistance under the Nova Scotia Bursary — Canada Student Loans Programme is available to all residents of Nova Scotia. A student from another province must apply for assistance to the government of his own province. Application forms can be obtained from the Supervisor

of Student Aid, Department of Education, Box 578, Halifax, Nova Scotia.

Education Fund for Negroes

This fund was established in April, 1965, for the purpose of assisting promising Negro students to continue their education in high schools, vocational schools, technological institutes, nursing schools, and universities.

Negro students who register at a recognized university or college are eligible for assistance under the terms of the Fund. Inquiries should be directed to Mr. Harlan Cox, Chairman, Education Fund for Negroes, Box 578, Halifax, Nova Scotia. Mr. Cox's office will also advise Negro students of other sources offering assistance in meeting university expenses.

Post Graduate Scholarship Assistance

Students whose university performance gives promise of successful graduate studies should seek advice on availability of fellowships and scholarships.

Interested students should contact the Office of Graduate Scholarships in the student center.

Financial Information

Fees Payment of Fees Withdrawal and Refunds

Fees

Tuition Fees:

Full-Time Students

(Students Registered for Three or More Courses)

These fees include all regular charges of the University for registration, tuition, laboratories and Library \$560.00

Other Fees: (Student Council, Athletics, Health Services) 45.00

TOTAL \$605.00

A student taking a course over the normal load will be charged an additional \$120.00.

Part Time and Evening Division:

Per course \$120.00

Special Fees

Late Registration: \$20.00 and an additional \$5.00 per day after September 14th.

Graduation: with Degree \$20.00

 with Diploma 15.00

 in absentia (additional fee). 15.00

Supplemental or Special Examination 15.00

At an outside centre (additional fee). 5.00

Official transcript (after first copy) 1.00

Students' Council Fee

At the request of the student body, all full-time students are required to pay \$18.00 in support of student projects. This fee is administered by the Students' Council and is included in full-time Tuition fees noted above under the heading of Other Fees.

Residence Fees

The residence fees are effective for the full academic year, beginning on the day before registration and ending on the day after the final examinations, but excluding the Christmas recess.

Students who are accommodated in the low-rise residence building will pay a room and board fee, as follows:

Single accommodation	\$975.00
Double accommodation	900.00

No reduction of these rates is allowed for meals not taken at the University.

The high-rise residence building offers apartment-type accommodation, including facilities for meal preparation. Each apartment consists of a living room, kitchenette, two double bedrooms, and a bathroom. An apartment is designed to accommodate four students. Occupants of these suites will pay a fee covering room rent only.

Rental fee, per student	\$500.00
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Students who enter residence before the beginning of the academic year or who remain in residence after the end of the academic year or during the Christmas recess will be charged a room rental of \$2.50 per day. Meals will be obtainable at the University cafeteria at the rates currently in effect.

The University may require students whose normal residence is beyond reasonable commuting distance from the University to live in the residence facilities provided by the University.

The University reserves the right to make changes without notice in its published schedule of tuition, residence, and other fees.

Payment of Fees

As first term fees, students are required to make an initial payment on or before the date of fall registration. The amount of this initial payment is:

Full-time students	\$350.00
Part-time and Evening Division students, per course.....	70.00

Second term fees payable on the dates of re-registration, January 5th to 12th, are the balance of the student's account.

Students will not be considered registered until the required fees have been paid or arrangements for payment made with the Business Office. The University may assess a penalty of \$20.00 in cases where students attend classes without having completed registration procedures.

Students who have been awarded scholarships and bursaries by the University may deduct one-half their value from first term fees.

Residence fees are payable in advance of registration. First-term residence fees are:

Low-rise, single accommodation	\$487.50
Low-rise, double accommodation	450.00
High-rise, room only	250.00

Second term residence fees are payable on or before the student's return to residence after the Christmas recess.

The University makes a \$5.00 charge for cheques that are returned by the Bank marked "Not Sufficient Funds", and may cancel the registration of any student who issues such a cheque in payment of any fee.

Those who plan to finance their education with funds from a Canada Student Loan should complete the arrangements before registration. Application forms for a Certificate of Eligibility may be obtained from the designated Provincial authority (in Nova Scotia, The Department of Education, Student Aid Section, Halifax, N.S.). If these forms are filed with the designated Provincial authority during the summer months the student should be able to obtain his Certificate of Eligibility and Confirmation of Enrolment form before registration. Signature of the appropriate University official on the Confirmation of Enrolment form will enable the student to obtain his loan without delay.

In cases where Canada Student Loan applications are still pending at registration time the student will be expected to effect payment of the required fees from his own resources.

A student who applies for residence accommodation must remit a deposit of \$50.00 with his application. If a residence application is accepted, the deposit is retained as a caution deposit against loss or damage other than normal wear and tear. The deposit or any remaining balance will be returned to the student's home address by mail shortly after the end of the academic year. The reservation deposit will be refunded if notice of cancellation is received before August 15th.

Students will be charged for damage to University property.

The University may cancel the registration of any student whose account is in arrears, may deny admittance to examinations, and withhold any report, degree, diploma, certificate, transcript, or testimonial until a student's financial account has been satisfactorily settled.

Cheques and money orders should be made payable at par to Saint Mary's University and addressed to the Business Office, Saint Mary's University, Robie Street, Halifax, Nova Scotia.

WITHDRAWAL

When a student withdraws from the University he must at once notify the Registrar, in which event this notification will be taken as the official date of withdrawal from the University.

A proportionate refund of tuition and residence fees may be granted to a student who withdraws from the University for a reason approved by the proper authorities if application is made in writing to the Business Office. Students withdrawing at the beginning of a month or at any time within the month are charged for the whole month. First term withdrawals are subject to a minimum charge of \$25.00 for tuition and \$50.00 for residence.

A student is accepted for residence on the understanding that he will remain in residence for the full academic year. A refund is not granted to a student who withdraws from residence unless or until an acceptable substitute has assumed the balance of the residence fees for the session.

No refund of any fee will be granted to a student who withdraws after November 15th for the first semester, or after February 28th for the second semester.

Admission Information

Application, Admission Requirements, Admission To Advanced Standing, Registration

For information on admission to Graduate Studies see page 55.

APPLICATION

All correspondence concerning admissions should be addressed to:
The Director of Admissions, Saint Mary's University, Halifax, Nova Scotia.

Application forms may be obtained by writing to the Director of Admissions. Applications should be forwarded to the Admission's office not later than August 15. The Application form must be accompanied by the following:

- a) Provincial or Accredited School Certificates showing all matriculation credits. Senior Matriculation certificates should be sent as soon as they are available.
- b) The completed Principal's Confidential Report Form must be mailed directly to the Director of Admissions by the Principal or Guidance Officer.
- c) Students who have attended any University or College must request that institution to send an official transcript directly to the Director of Admissions, Saint Mary's University. (See Admission of Transfer Students)
- d) A \$5.00 fee must accompany this application. Your application will not be processed until your fee is received.
- e) A recent photograph. This must be a head and shoulders photograph of good quality and suitable for possible newspaper reproduction.
- f) All overseas students whose mother tongue is not English are required to take the English Language Test administered by the University of Michigan. The English Language test is the responsibility of the student who must apply directly to the:

The English Language Institute
Testing and Certificates
The University of Michigan,
Ann Arbor, Michigan,
U.S.A.

A student wishing to apply for on-campus residence accommodation will receive, upon acceptance by the University, an "Application for

Residence" form, from the Admissions office. The application with a \$50.00 deposit, serving as both a reservation and caution deposit, should be forwarded to the Dean of Men, Saint Mary's University, and students are asked to note that no application for residence can be considered, unless accompanied by this deposit. The sum will be returned, either in full, or in part, one week after the end of the academic year, but will not in any event, be applied toward tuition or residence fees. In the case of accommodation not being available, or if the reservation is cancelled before August 1st, the deposit will be refunded in full. It is not refundable after this date.

ADMISSION REQUIREMENTS

To be admitted to Saint Mary's as an undergraduate a candidate must offer Junior Matriculation, 50%, Nova Scotia Grade XI or equivalent, in English, Mathematics and any three from History, Economics, Physics, Chemistry, a language other than English, Biology, Geography, or Geology. An average of 60% is required.

Candidates for Science and Engineering should offer Chemistry, Physics, and/or Trigonometry and marks in Science and Mathematics should be above average.

The University reserves the right to admit any student who gives promise of success in University studies even though he does not possess all the normal entrance requirements.

Saint Mary's University DOES NOT require S.A.C.U. test scores as one of the criteria for admission. Students who have written S.A.C.U., C.E.E.B. or other standardised tests should submit the results for evaluation.

TRANSFER STUDENTS

Application for admission from students wishing to transfer from another University or College will be considered only for the year and session in which they are eligible to register in their former University.

Students who have been away from University studies for a number of years may be considered for admission.

A transfer student completing his first degree must complete at least ten courses at Saint Mary's to be eligible for a Saint Mary's degree.

Advanced standing for work done at other universities will be considered on the basis of individual courses.

A student holding an **undergraduate degree** shall be required to satisfy the requirements of the **Faculty** in which he pursues his second degree, undergraduate, **graduate** or professional.

ACCEPTABLE CERTIFICATES

Satisfactory marks **will be accepted** as credit toward the entrance requirements if such **marks** are granted by any one of the following examining bodies.

- a) A Nova Scotia **Department of Education** Grade XI university preparatory **program certificate**.
- b) A Nova Scotia **Department of Education** Grade XII (Provincial examinations) in the **University preparatory program**.
- c) A **Provincial Certificate** for the provinces of New Brunswick, Newfoundland and from provinces that offer provincial examinations.
- d) **Equivalent certificates** issued by Education Departments of other provinces.

EQUIVALENT CERTIFICATES

United States:

High School graduation **with 16 points**, (4 in English, 2 in History, 2 in Algebra, 1 in Geometry and 7 other academic subjects). The student must provide a High School Transcript and the test results of the C.E.B.'s or SCAT.

United Kingdom, West Indies and West Africa:

For admission at the Junior **Matriculation** level the G.C.E. with passes at the ordinary level in 5 **subjects**. English and Mathematics are required subjects.

Hong Kong:

General Certificate of **Education** as above or University of Hong Kong **Matriculation Certificate** on the same basis as the G.C.E.

ADMISSION TO ADVANCED STANDING

1. Arts

A full year's credit (five courses) **will be granted** a student registering in Arts, who presents a Senior **Matriculation Provincial certificate** (Nova Scotia Grade XII) or equivalent **with a pass standing** (50%) in each of the following subjects, and a **general average** of 10% above pass (60%).

English and four from Mathematics, **Physics**, Chemistry, Biology, Geology, Geography, History, Ancient and Modern Languages.

This advanced standing makes graduation with a general degree possible in three years.

2. Science and Commerce

A full year's credit (five courses) will be granted a student registering in Science or Commerce, who presents a Senior Matriculation certificate (Nova Scotia Grade XII) or equivalent with a pass standing (50%) in each of the following subjects, and a general average of 10% above pass (60%).

- i English
- ii Mathematics
- iii Three from Physics, Chemistry, Biology, Geology, Geography, History, Ancient and Modern Languages.

This advanced standing makes graduation with a general degree possible in three years.

3. Engineering

A student registering in Engineering who presents a Senior Matriculation Certificate, Nova Scotia Grade XII or equivalent, with a pass of 65% will be able to complete the Engineering Diploma requirements in three years and (subject to the fulfillment conditions) receive the Bachelor of Science Degree.

- i English
- ii Mathematics
- iii Physics
- iv Chemistry
- v One of History, Geography, Biology, Geology, Ancient or Modern Languages

The Diploma in Engineering admits the student into any of the departments of the Nova Scotia Technical College without an examination to the final two years of a five year program leading to the degree of Bachelor of Engineering.

4. All Faculties

United Kingdom, West Indies, West Africa and Hong Kong students may be granted advanced standing on the presentation of G.C.E. certificates in five subjects at the ordinary level of which two are English and Mathematics and in addition at least three subjects at the advanced level. The grade of marks obtained must average less than four.

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and Commerce

credit (five courses) will be granted a student registering in
Commerce, who presents a Senior Matriculation certificate
(Grade XII) or equivalent with a pass standing (50%) in
following subjects, and a general average of 10% above pass

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from Physics, Chemistry, Biology, Geology, Geography,
r, Ancient and Modern Languages.

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registering in Engineering who presents a Senior Matricu-
cate, Nova Scotia Grade XII or equivalent, with a pass of
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and (subject to the fulfillment conditions) receive the
Science Degree.

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f History, Geography, Biology, Geology, Ancient or
Languages

a in Engineering admits the student into any of the
of the Nova Scotia Technical College without an examin-
final two years of a five year program leading to the degree
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r five subjects at the ordinary level of which two are
Mathematics and in addition at least three subjects at the
el. The grade of marks obtained must average less than

E. Partial Credit (Fewer Than Five Courses): All Faculties

Partial credit (fewer than five courses) may be granted on the basis of
Senior Matriculation standing under the following conditions:

- a) These credits must be obtained before courses at the University
are begun.
- b) The student must have a mark of 60% in each subject for which
he is seeking advanced standing. A student wishing to take further
courses in Mathematics or Science must have a mark of 75% in
that subject.
- c) Courses taken at other institutions or by Senior Matriculation
after first registration at Saint Mary's will not be credited by the
University unless the student has obtained prior, written approval
of the Dean of Faculty.

Appeals

See page 39.

REGISTRATION

Registration will take place on the dates and times set forth in the
Academic Calendar. Students should follow exactly the directions for
Registration Procedure supplied by the Office of the Registrar. No
credit will be allowed for a course for which the student is not regularly
registered.

It is part of registration to meet initial obligations with the Office of
the Registrar.

At the time of registration, all students not registered at Saint Mary's
during the past academic year are required to present a certificate of
medical fitness. Students participating in major sports may also be
asked to produce a similar certificate.

Late Registration

Students registering on any other date than that designated in the
Academic Calendar are required to pay a late registration fee (see
"Special Fees").

Change in Registration and Dropping Courses

No change after the initial registration is permitted only with the
written consent of the Dean of the Faculty concerned.

No change in registration is permitted after the second week of
instruction in a semester. Students who drop a course without
authorization will be given a grade of 'WF' (Withdrawal Failure) on the

University records. A note of 'W' signifies — Permitted course
Withdrawal. Should registration prove insufficient, the University reserves the right to cancel any listed course.

Academic Information

Examinations and Grades Evening Division Adult Study Series The Atlantic Summer School For Advanced Business Administration

Examination and Grades

The university's policy in respect of the evaluation of a student's performance is designed to provide flexibility in the methods employed in evaluation, and as far as possible to provide for continuing evaluation of a student's progress throughout all stages of a course.

Accordingly, the method of evaluation in any course is determined by the member of faculty responsible for that course, subject to the approval of the appropriate department and faculty dean.

All professors must make known in writing to their students no later than one week after the beginning of any course the precise procedures for determining and measuring a student's progress in that course, including a statement of the number and form of examinations and assignments, and other criteria of evaluation.

The following letter-grade system is employed to evaluate progress in a course:

A - excellent, superior	.....	.85% - 100%
B - very good, above average	.....	.70% - 84%
C - good, average	.....	.60% - 69%
D - fair, below average, but passing	.....	.50% - 59%
F - unsatisfactory progress, no credit given	.....	Below 50%
P - satisfactory progress, credit given		
WF - course withdrawal with evaluation of unsatisfactory progress		
Regrotat - regrotat standing		

Supplemental and Special Examinations

1. A student is eligible to take a supplemental examination covering the same course materials as that contained in any given course on the written recommendation of the professor responsible for the course.
2. Such recommendation must be submitted to the Registrar's office in conjunction with the final grade established at the end of a course, and supplemental examinations are taken at the time in September prescribed in the university calendar.
3. To be eligible to write any supplemental examination for which he is recommended, a student must have no more than two final

course grades of unsatisfactory (F) during the academic year for which the supplemental examination is to be taken.

4. Supplemental examinations are graded either P (satisfactory) or F (unsatisfactory).
5. Only one supplemental examination is permissible in any course.
6. No more than three full courses passed by supplemental examinations will be credited towards any degree or diploma.
7. Applications for supplemental or entrance examinations must be made to the Registrar's office no later than July 15.

Special examinations are written outside the times assigned for regular and supplemental examinations, and are granted rarely and only for extraordinary reasons by the Committee on Academic Standing.

Failures:

A student who defaults any final process of evaluation — examination, assignment, etc. — is considered to have failed the course and receives a WF (withdrawal failure) notation of his record for that course. To receive credit in such course the student must repeat the course.

A student who obtains an evaluation in any course deemed by the professor offering the course to be so unsatisfactory as to preclude any reasonable prospect of achieving success in the course can with the approval of the departmental chairman and faculty dean be asked to withdraw from the course, and will receive a grade of WF.

A student who withdraws voluntarily from any course at a point in the course where his formal evaluation is unsatisfactory (F) will receive a notation of WF on his record for that course.

A student receiving a final evaluation of unsatisfactory (F) in a course which involves both lectures and laboratory work must repeat both parts of the course or an equivalent approved by the department concerned to receive a credit in the course.

A full-time student who, in his first year, fails to pass at least two courses, must withdraw from the University for one year. Such a student may be re-admitted on academic probation following this one-year suspension.

Default of any formal process of evaluation in a course for medical reasons must be certified medically in written form with the Registrar's Office within one week of the default.

Aegrotat Standing

Aegrotat standing provides for a student receiving credit in a course in circumstances where the student has been unable, for medical reasons or compassionate grounds, to complete a final formal process of evaluation. A professor may award aegrotat standing after satisfactory evidence has been supplied to cover the absence. Such evidence must be submitted to the Registrar's office no later than one week after the absence.

Academic Probation

Any student who receives an evaluation of unsatisfactory (F) in more than two courses at either mid-year or year-end is placed on academic probation.

Any student who fails in two years of his work is automatically subject to dismissal.

Any student whose academic record or progress is judged to be unsatisfactory because of poor attendance, assignments, or other reasons may be placed on academic probation. If the record continues to be unsatisfactory, the student may be dismissed from the University by the Dean of Faculty. A person who is on academic probation is subject to dismissal at any time at the discretion of the Dean of Faculty.

Appeals

Appeals pertaining to decisions taken on academic regulations may be made, in writing, to the Committee on Academic Standing.

SPECIAL PROGRAMMES

EVENING DIVISION AND SUMMER SESSIONS

Evening courses in Arts, Science and Commerce, are offered at the University in Evening and Summer Sessions. Students enrolling in these courses must have fulfilled the usual requirements for University entrance (see Admission requirements for undergraduate and graduate students). Students must follow, as closely as possible, the normal sequence of courses as required for students in the Day Division. They must maintain the same standards in their studies, as students in the Day Division.

Evening Division courses begin in September, at the time the Day Division commences classes, and end with the April examinations. Two Summer Sessions of six weeks each are held, the First Session beginning in mid-May and the Second Session early in July. Brochures describing

the courses offered in the Evening Division and Summer Sessions are available from the Director's Office, the former by August 1st and the latter by January 31st.

Students registered for degrees at Saint Mary's may take two courses each year in the Evening Division and one course per Summer Session. Students wishing to take courses at Saint Mary's for credit at another university must submit written permission from the appropriate authority at his or her university along with the application for a course or courses.

Students who expect to commence part-time studies in September or during the Summer Sessions should in the former case contact the Director not later than August 15th and in the latter case not later than April 1st. All inquiries should be addressed to the Director, Evening Division and Summer Sessions, Saint Mary's University, Halifax, Nova Scotia.

Adult Studies Series

In 1951, Saint Mary's University Adult Studies were instituted as a cultural service to the Halifax community. Lectures, academic in subject and treatment, are offered regularly to the general public on a variety of topics. Their purpose is to extend familiarity with humanistic learning, awaken critical attitudes, and stimulate a deeper sense of values consistent with our western heritage.

Usually lectures are given in series, ten lectures devoted in one semester to a particular topic.

Inquiries for information should be addressed to The Director, Adult Studies.

The Atlantic Summer School for Advanced Business Administration

This summer school, sponsored by the Association of Atlantic Universities, offers a five weeks' course for executives from mid-June to mid-July. The course is designed to benefit both university and non-university men. It is desirable, however, that students have from five to ten years of experience in the management of men or in the conduct of technical or staff functions at a fairly responsible level.

Information and application forms may be obtained from Dean H.E. Dysart, Director, Atlantic Summer School for Advanced Business Administration, University of King's College, Halifax, N.S.

Faculties and Courses

Arts Science Commerce Engineering Pre-Professional
Courses Honours Courses Education

Course Numbering System

The new system of course numbering appearing in this Calendar took effect in September, 1967, and replaces the numbering system adopted in 1962. In the new system, courses numbered from 100 to 119 are Freshman level courses, normally taken by students entering from Nova Scotia Grade XI or equivalent. Courses numbered from 120 to 199 are introductory level courses normally taken by students entering from Nova Scotia Grade XII or equivalent, and are Sophomore level courses. All 100 level courses are normally prerequisite for admission to further courses in the subject. The 200 and 300 level courses are advanced courses normally taken in the Junior and Senior years. Courses numbered in the 250+, 350+ series are normally open only to students in the Honours Program, but may be taken by students in the General Program with the permission of the Department concerned. The 400 level courses are honours courses normally taken in the fifth year beyond Grade XI. The 500 level courses are graduate courses.

Degree of Bachelor of Arts — The General Program

1. Subject to the regulations set forth in this calendar, the student must complete the equivalent of 20 full courses following junior matriculation, or 15 full courses following senior matriculation.
2. During the regular academic year, the student will normally take five full courses. The department of the student's major concentration will normally govern his registration beyond the Freshman Year.
3. Major concentrations for the Arts degree may be taken in Anthropology, Classics, Economics, English, French, German, History, Latin, Mathematics, Philosophy, Political Science, Psychology, Sociology, Spanish, Theology.
4. Each candidate for the B.A. must receive credit for:
 - (a) one university course in English
 - (b) one course in History
 - (c) one course in Philosophy

- (d) one course in a Social Science (Economics, Political Science, Psychology, Sociology)
5. A student who chooses a major concentration must complete no fewer than five courses in one subject. Courses numbered below 120 will not count. His program will be supervised and approved by his department.
 6. A student who does not choose a major concentration must have his program supervised and approved by a member of Faculty. A copy of such a program must be filed in the office of the Dean at the beginning of each academic year and will be subject to his approval. At least 50% of a non-major student's elective work must be done at the 300 level or above.

Additional Information:

Arts and Commerce Course:

Students who wish to obtain the Bachelor of Commerce degree in one year following the Arts degree will consult the Dean of Commerce regarding their program.

An Arts student who intends to do graduate work in Business Administration may, with the permission of the dean of Arts, take courses in Accounting and Business Administration in his undergraduate Arts program.

SCIENCE

The requirements for the general degree of Bachelor of Science, applicable to students who registered in September, 1966, or later, are as follows:

1. Subject to the regulations set forth in this calendar, the student must complete a total of 20 full courses following junior matriculation, or 15 full courses following senior matriculation.
2. During the regular academic year, the student will normally take five full courses. The department of concentration will normally govern registration for the Sophomore and subsequent years.
3. Concentrations for the science degree may be taken in Biology, Chemistry, Geology, Mathematics, Physics, Psychology.
4. **The Freshman Year:**

The student must complete five courses from those numbered 100-119 as follows:

- (a) Three required courses: one English, one Mathematics, and one History, or Economic History.
- (b) Two elective courses to be chosen from the courses open to Freshmen in the following subjects: Biology, Chemistry, French, Geology, German, Latin, Physics, Spanish, Theology.

5. The Sophomore Year

- (a) The student must choose his subject of concentration and seek registration advice from the department of that subject.
- (b) The student must complete:
 - (i) one course in Philosophy
 - (ii) one course each (at the 120 level and above) in two of the following: Biology, Chemistry, Geology, Mathematics, Physics, Psychology.
 - (iii) one course in Mathematics other than in (ii)
 - (iv) one elective from the Humanities, preferably English.

6. The Junior and Senior Years:

To satisfy requirement no. 1, the student must complete:

- (a) Five or six courses beyond the sophomore level in two subjects from the following: Biology, Chemistry, Geology, Mathematics, Physics, Psychology or Engineering in the case of students following Schedule B under Engineering, pages 27 and 28. Students who wish to offer a subject begun only in the junior year may, by exception, offer the introductory course in that subject as one of the four courses required in (b).
- (b) Three or four courses in the Humanities or Social Sciences. At least one of these courses must be a second course in the subject and be beyond the sophomore level.
- (c) one course from the Social Sciences (Economics, Political Science, Psychology, Sociology, Anthropology).

Engineering and Science Course

Students who have obtained the Diploma of Engineering under Schedule "B" may proceed to the degree of Bachelor of Science on successful completion of a further year of study.

The program of this additional (fourth) year will include: a course in Mathematics, an elective from the Humanities,* and any three from Physics, Chemistry, or Mathematics, or three courses in Geology.

All programs must have the approval of the Dean of Science.

*This must be a course in Philosophy unless the student has already a credit in Philosophy.

COMMERCE

The program of study leading to the degree of Bachelor of Commerce is offered to students who desire the advantage of higher education and wish, at the same time, to prepare themselves for graduate study, a place in the business community, the public service, and professional life. The purpose of the program is to provide a broad background in the humanities and social sciences together with a development of the conceptual foundations of accounting, business administration and economics.

Degree of Bachelor of Commerce

The requirements for the degree of Bachelor of Commerce are as follows:

1. Subject to the regulations set forth in this calendar, the student must complete a total of 20 full courses following junior matriculation, or 15 full courses following senior matriculation.
2. During the regular academic year, the student will normally take 5 full courses. The five courses to be taken will be decided by the student in consultation with the department of his major. A major must be selected not later than the end of the sophomore year.

Up to the end of the sophomore year, the five courses in a student's program will be decided by the student in consultation with a member of the Commerce Faculty.

3. Major concentrations may be taken in Accounting, Business Administration and Economics.
4. **The Freshman Year:**

The student must complete 5 courses as follows:

- (a) Two required courses: English 101 and Mathematics 113

- (b) Three elective courses to be chosen from the following: Biology 105A-105B, Economics 102, French 102, German 100, History 111, Latin 102, Physics 111, Political Science 121, Psychology 120, Sociology 121, Spanish 100, Theology 121.

2. The Sophomore, Junior and Senior Years:

- (a) The student will take 15 courses numbered 120 and above.
- (b) The student must complete 6 required courses as follows:
- (1) English 120
 - (2) Philosophy 120
 - (3) Accounting 201
 - (4) Business Administration 201
 - (5) Commercial Law 201
 - (6) Economics 202
- (c) In addition to the courses listed under (b) above, the student must complete two approved courses to be chosen from the subject areas of the languages, humanities, social sciences (including Economics), natural sciences, accounting, and business administration.
- (d) A student who elects a beginning course in a language other than English must take another course in that language in a subsequent year.
- (e) The student must complete a major concentration in one of the following subjects as listed:
- (i) Accounting – four courses, to include: Accounting 201, 301, 312-13.
 - (ii) Business Administration – four courses, to include: Business Administration 201, 312-14.
 - (iii) Economics – five courses, to include: Economics 202, 306, one of 302, 303, or Math 120A-120B and two at the 300 level.
- (f) The remaining courses required under section (a) will be chosen by the student in consultation with his department.

The programs shown represent what is normally taken and recommended for each concentration:

Accounting

First Year

English 101*
Mathematics 113*
Elective
Elective
Elective

Second Year

English 120*
Accounting 201*
Business Administration 201*
Quantitative Methods 121-122, or 122-201
Economics 202*

Third Year

Accounting 312* – 313*
Accounting 301* – 321
Commercial Law 201*
Philosophy 120*
Elective

Fourth Year

Accounting 303
Accounting 305
Elective
Elective
Elective

* **Required Course**

Economics

First Year

English 101*
Mathematics 113*
Economics 102
Elective
Elective

Second Year

English 120*
Business Administration 201*
Accounting 201*
Quantitative Methods 121-122, or 122-201
Economics 202*

Third Year

Commercial Law 201*
Economics 302+
Economics 306*
Philosophy 120*
Elective

Fourth Year

Economics 303+
Economics Elective
Economics Elective
Elective
Elective

* **Required Course**

+ The student may take either one of these or Math 120A – 120B to fulfill this requirement for a major. If he intends to pursue graduate studies the student is advised to take both Economics 302 and Economics 303.

Business Administration

First Year

English 102*

Mathematics 113*

Elective

Elective

Elective

Third Year

Commercial Law 201*

Elective

Business Administration 306

Philosophy 120*

Business Administration 312* - 314*

* Required Course

Second Year

English 120*

Accounting 201*

Business Administration 201*

Quantitative Methods 121-122,
or 122-201

Economics 202*

Fourth Year

Business Administration 310

Elective

Elective

Elective

Elective

ENGINEERING

For the Diploma in **Engineering**, the syllabus of studies is that prescribed by Nova Scotia Technical College for the first three years of its five-year course. The first three years are given only at the associated universities, of which Saint Mary's is one, together with Acadia University, Dalhousie University, Memorial University, Mount Allison University, Saint Francis Xavier University, and Saint Dunstan's University.

With a Diploma in Engineering a student may enter without examination any of the departments at the Nova Scotia Technical College, York University or McGill University, and obtain the degree of Bachelor of Engineering (Civil, Electrical, Mechanical, Chemical, Metallurgical, Mining, Industrial or Geological) on the successful completion of the last two years of a five-year course.

DIPLOMA IN ENGINEERING

Students entering with **Senior Matriculation** or equivalent, as defined below, will be required to follow the curriculum given below and designated as Schedule "A". On successful completion of this program the student will receive the **Diploma in Engineering** and a degree in Science.

Students entering with Junior Matriculation or equivalent, as defined in this calendar, will follow the curriculum given below and designated as Schedule "B". On successful completion of this program the student will be awarded the Diploma in Engineering.

SENIOR MATRICULATION REQUIREMENTS

The following entrance qualifications are necessary for those who, if they wish, plan to follow the program outlined in Schedule "A". A passing standing of 50% in each course is required with a general average of 65%.

- i English
- ii Mathematics
- iii Physics
- iv Chemistry
- v One from History, Geology, Geography, Ancient and Modern Languages

Schedule "A"

First Year	Second Year	Third Year
Mathematics 120A 120B	Mathematics 222	Mathematics 212, 325 or 333
Physics 121	Physics 222	Engineering 302
Chemistry 121	Chemistry 202	Engineering 303*
English 125	Engineering 203*	Engineering 304
Engineering 105 or 102	Engineering 204*	Engineering 308
Engineering 106*	Elective	Engineering 306*
Engineering 107*	Elective	Elective

*Schedule "B"

First Year	Second Year	Third Year
Mathematics 110A 110B	Mathematics 120A 120B	Mathematics 222
Physics 111	Physics 121	Engineering 302
Chemistry 121	Chemistry 202	Engineering 303*
English 101	Engineering 203*	Engineering 304
Engineering 105 or 102*	Engineering 204*	Engineering 308
Engineering 106*	Elective	Engineering 306*
Engineering 107*	Elective	Elective

Note:

1. * indicates one semester courses. For details see "Courses of Instruction."

3. Students who plan to enter **Civil, Mining, Metallurgical or Geological Engineering** at the **Nova Scotia Technical College** must complete **Geology 121** for the **second year elective**.

Engineering 382 (Engineering Measurements) is required only of students proceeding to the **Nova Scotia Technical College** in **Civil, Mining or Geological Engineering**.

The selection of courses from the **Humanities**, where not specifically designated, is **subject to the approval of the registrar**.

When it is deemed **advisable**, students with partial **Grade XII** certificates may be given **credits in certain subjects** depending on the **mark in the course and the general average**. This will be at the **discretion of the Dean of Engineering**.

ENGINEERING AND SCIENCE

Students who have obtained the **Diploma of Engineering** under **science "B"** may proceed to the **degree of Bachelor of Science** if they fulfill the requirements noted **under Engineering and Science Course**.

PROFESSIONAL COURSES

Students who plan to enter the **professions of theology, law, medicine, dentistry, etc.**, should see that **their plan of studies** includes courses appropriate to entrance into the **professional school of their choice**. **Officers of professional schools** may be consulted in the **Office of the Registrar of Saint Mary's University's** program does not meet the **entrance requirements to the school of his choice**, the student is **responsible to make it known to the appropriate Dean at registration**. **Appropriate adjustments will be made at that time**.

The sequence of **pre-professional courses** may, if necessary, replace the **pre-requisites or major requirements** for the **Bachelor's degree**. Though not usually required by some **professional schools**, **Saint Mary's University** complete **matriculation in Arts, Science, or Commerce**, and does not guarantee that the **timetable will allow the completion of entrance pre-professional requirements** in less than the **full time required for the Bachelor's degree**. **Prerequisite requirements for courses apply to pre-professional students**.

Students who may wish to enter a **theological seminary** are advised to do **major concentration work in Philosophy and/or Latin**, supported by **additional courses in languages and Social Sciences**.

Law

Students planning to enter Law School should contact the Dean of their Faculty as soon as possible. In this way an appropriate program of study can be worked out and agreed upon by the student and the Dean of his faculty.

Medicine

Students who wish to apply for admission to medical schools in Canada or the United States are generally required to have complete matriculation in Arts or Science.

"College training in preparation for the study of medicine should provide the opportunity for a good general education including the attainment of competence in English. It should include theoretical and laboratory courses in Physics, Biology, and Inorganic and Organic Chemistry. At the present time the minimum requirement for admission to approved medical schools is three years of college training for the average student. For most students, four years is recommended in order to provide an opportunity to gain a broad educational experience." (Statement of the American Medical Association December, 1951.)

Pre-medical students entering with Nova Scotia Grade XI or equivalent should complete fifteen university courses.

Credits should include Biology 105A-105B, Chemistry 111, 121, 204 Freshman English, Sophomore English, Mathematics 110A-110B, Philosophy and Physics 111. Of the six remaining credits, two or more advanced courses should be taken in a definite field of learning in the humanities, sciences, or social sciences

Senior matriculation biology, general chemistry and physics will not ordinarily be accepted as equivalent to these required classes unless followed by second level university classes in the respective subjects.

Students wishing to complete the requirements for a Bachelor of Science or Bachelor of Arts Degree must take five additional courses to be determined by the department of concentration so as to fulfill the requirements on pages 41 and 42 respectively.

Dentistry

Students who wish to apply for admission to dental schools and who enter with Nova Scotia Grade XI or equivalent must complete a minimum of fifteen university courses which should include Biology

105A-105B; Freshman English, Sophomore English; Mathematics 110A-110B; Physics 111. The remaining courses should include at least three courses chosen from the humanities and social sciences.

Students wishing to complete the requirements for a Bachelor of Science or Bachelor of Arts Degree must take 5 additional courses so as to fulfill the requirements on pages 41 and 42 respectively.

Architecture

Saint Mary's University, in association with the Nova Scotia Technical College, offers the first two years of a six-year course in Architecture leading to a Bachelor of Architecture degree. Students who complete two years of satisfactory University study, the courses studied being in any faculty, and who have been recommended by their appropriate Dean are admitted without further examination to the third year at the School of Architecture, Nova Scotia Technical College, Halifax, where they complete the four year professional phase of the curriculum.

Candidates should, preferably, complete at least one University course in Mathematics, alternatively, they may be required to take an entrance examination in this subject at Nova Scotia Technical College.

HONOURS DEGREES

ARTS AND SCIENCE

The general requirements for Honour's Degrees are as follows:

1. Students of above-average ability are urged to make application to follow an Honour's program before the end of their Sophomore year. Formal application for admission to an Honour's program must be made on a form available in the Registrar's office. The form must be submitted by the student applicant to the Chairman of the Department concerned, and must receive the approval of the appropriate Dean of Faculty.
2. All Honour's programs must consist of twenty full courses or equivalents beyond the Freshman year, and must satisfy the requirements for the General Bachelor's degree. A student must have the approval of the Committee on Academic Standing to transfer from an Honour's program to the General program.
3. A student must obtain a grade of not less than B in every Honour's course as described in item 4(a) or 5(a) below. A student receiving a mark of less than B in any Honour's course in

item 4(a) or 5(a) will be permitted to continue in an Honour's program only with the approval of the Committee on Academic Standing.

4. In an Honour's program with a major, the fifteen full courses or equivalents taken beyond the sophomore level must include:
 - (a) nine full courses or equivalents beyond the sophomore level in a major subject;
 - (b) two full supporting courses or equivalents to be determined by the department of the major;
 - (c) four full courses or equivalents in the Humanities or Social Sciences.

5. In an Honour's program with a combined major, the fifteen full courses or equivalents taken beyond the sophomore level must include:
 - (a) eleven full courses or equivalents beyond the sophomore level in two allied subjects. Not more than seven full courses or equivalents being in either of them.
 - (b) four full courses or equivalents in the Humanities or Social Sciences.

EDUCATION

Bachelor of Education Program

This program of studies, which is designed to form a professional preparation for university graduates intending to enter the teaching profession, is a full-time one of six courses lasting one academic year (September to May), dealing with preparation for teaching in Junior and Senior High Schools.

There are two goals aimed at in this program. The first is to provide students with a basic competence in the skills of teaching academic subjects. The second goal, is to encourage in students the development of those ideas which will allow them to perceive the process of Education as being one which while providing the facts and skills necessary for living, has, at the same time, the more significant aim of expanding and enriching the mind of the learner. In furtherance of these aims, students are required, in addition to class attendance, to undertake a considerable amount of reading and writing with the object of developing their own personal understanding and philosophy of education.

The six courses in the program are: .

Philosophy of Education; Psychology of Education; History of Education; General Methods of Teaching; Special Methods of Teaching; Practice Teaching. In the case of Special Methods, students attend those two half classes dealing with the subjects they wish to teach in school. All students, unless previously trained as teachers and having a permanent licence, take the teaching practice.

The program meets the approval of the Department of Education of Nova Scotia and on successful completion of their studies, students may apply to the Department of Education of the Province of Nova Scotia for a teaching licence. Students are entirely responsible for any negotiations with the Department of Education respecting their licence.

Candidates should note that the pass mark for the entire program is C average, while for individual subjects the pass mark is D. No supplemental examinations are provided. Failure in one subject constitutes failure of the program.

Admission Requirements

Candidates must hold a Bachelor's Degree of Saint Mary's University or another recognized university of similar standing.

Candidates who have had professional teacher training at the Nova Scotia Teachers' Training College and who have since acquired a Bachelor Degree, may obtain the Degree of Bachelor of Education by taking only the classes in Philosophy of Education, and Psychology of Education.

Candidates who have had professional teacher training of two or three year duration at a College of Education in the United Kingdom or Teacher Training College in the United States, who are licensed as teachers by the Province of Nova Scotia, and who have acquired a Bachelor Degree, may obtain the Degree of Bachelor of Education by undertaking a program of study as may be approved by Senate.

Note: The Province of Nova Scotia will pay the TUITION fees of those candidates who undertake to teach within the Province for a period of one year. Application for these TUITION grants may be made at the time of Registration.

In addition, the Province of Nova Scotia provides a certain number of **SCHOLARSHIPS AND BURSARIES** for those intending to take the Bachelor of Education Degree. Application for scholarship is made on a form obtainable from the School of Education which must be returned before **June 1st**. Note that all allocations of scholarships are made during June and only unusually are any funds available for this purpose after that month.

To Apply for Admission

1. Complete the form of application and make sure that all the documents required are complete and returned with the application.
2. Make sure that supporting documents – transcripts, references and so on will be sent to the University by those concerned. The Director of Admission does **not** undertake to send transcripts or references.
3. Applications should be made as soon as possible, but in any case applications received after August 15th may not be processed in time for registration in September.
4. The admission of any candidates to the program is probationary and the status of all candidates is reviewed in December each year.



Graduate Studies

Degree of Master of Arts

GENERAL REQUIREMENTS FOR ADMISSION

1. Candidates for admission to the Master's program must:

Hold a Bachelor's degree from a University of recognized standing, and have completed an undergraduate program in the subject area chosen for the graduate study comparable to an Honours degree from Saint Mary's University in that subject area.

Note.

A Bachelor of Education degree comparable to that granted by Saint Mary's University with second class standing will be considered the equivalent of an Honours degree for candidates seeking admission to graduate study in Education.

Candidates whose native tongue is other than English may be required to take a proficiency in English under the auspices of

The English Language Institute
Testing and Certification
The University of Michigan
Ann Arbor, Michigan, U.S.A.

have the approval of the Committee on Graduate Studies, and of the department concerned.

2. Candidates who have not completed the requirements for admission may, on recommendation of the department concerned, be admitted by the Committee on Graduate Studies to a program of preliminary study.

3. Certain departments may have special requirements for admission in addition to the general requirements.

4. Application for admission must be made on a form obtainable from Director of Admissions. The application form calls for an official transcript of the student's academic record, and also for letters of recommendation from two persons in a position to judge the applicant's personal and intellectual capacities for graduate study. The form and all supporting documents must ordinarily be on hand by May

GENERAL REQUIREMENTS FOR THE MASTER'S DEGREE

1. Candidates normally must spend at least one academic year residence. This period is additional to any time needed to meet normal admission requirements.
2. Candidates must complete a program of four full courses and submit an acceptable thesis. On the recommendation of the department concerned, a three course program is permissible for a candidate undertaking a proportionately more demanding thesis. In departments authorized by the Committee on Graduate Studies, a five course program, without thesis, is also acceptable for the degree. Courses in programs must be at the 400 level or the 500 level, but, where advisable, courses at the 300 level may be included in a program provided that the requirements applying to graduate students in such courses be of a graduate standard.
3. A Department may accept two advanced courses in the chosen subject area completed at other universities as part of the requirements provided they have not been applied previously towards another degree.
4. A mark of B is required in all courses.
5. Two failures will require withdrawal from the program. There will be no supplemental examinations.
6. Candidates must complete all degree requirements within three calendar years of being accepted as Master's degree candidates.

FEES, FINANCIAL AID

The schedule of fees found on page 28 of this calendar applies to the graduate studies program.

A number of fellowships and assistantships up to a maximum of \$2,500 for the calendar year are available for full-time students. Further information on these may be obtained from the Chairman of the department concerned.

DEPARTMENTS OF INSTRUCTION

EDUCATION

The University's general requirements for admission to Graduate Studies and for the Master of Arts degree apply to the School of Education. The particular requirements of the School are as follows:

1. The candidate for admission is normally asked to appear for a personal interview with the Dean of Education and/or a faculty member designated by him. The interview usually occurs after the candidate's application form and supporting documents are on hand.

2. The candidate is encouraged to have completed at least one year of successful teaching before embarking on the M.A. (in Education) program.

3. Courses are generally scheduled in the late afternoon, evening, and Saturday morning during the regular academic session. A summer course is also available, but a candidate is not permitted to take more than two of his four courses through summer study.

4. Course offerings include courses in the following fields: Philosophy of education, psychology of education, comparative education, and educational administration/supervision. The complete repertory of courses is found on page

5. In conjunction with the writing of his thesis a candidate must enroll in Education 510 (Graduate Research Seminar). This course does not count as one of the four normally required for the degree.

HISTORY

The University's general requirements for admission to Graduate Studies and for the Master of Arts degree apply to the Department of History. The particular requirements of the Department are as follows:

1. The candidate will be required to demonstrate a reading knowledge of at least one foreign language by passing a test carried out in cooperation with the language department concerned. French is specified for candidates intending to write a thesis in the history of Canada.

2. A thesis can be written only in the following three fields: Canadian; Canadian-American Relations; and Tudor and Stuart England.

3. Before proceeding to the thesis, the student following the course-and-thesis approach must pass an oral examination in which he will be expected to demonstrate knowledge in (a) his fields of study and (b) the ideas of the leading historians. A similar examination will be required of candidates in the course programme.

4. Two months prior to the termination of his courses, the candidate will be invited to select from among the members of the History Department, the chairman and committee members

of his examination board. While the Department will make every effort to meet his requests, it cannot guarantee that his selection of an examination board will be complied with fully.

PHILOSOPHY

Robert N. Ansell,
Richard H. Beis,
Lawrence Dewan,
Rolf Gruner,
H. Lackner
Rowland C. Marshall,
Arthur P. Monahan,
William A. Stewart, S.J.

REQUIREMENTS FOR ADMISSION

Application for admission must be made on a form obtained from the Director of Admissions. The general requirement for admission to Graduate Studies which requires the applicant to hold a Bachelor's degree equivalent to an Honours degree in Philosophy from St. Mary's University is specified by the following details: some acquaintance with modern logic, and with the various sections of the history of philosophy: ancient, mediaeval, modern, contemporary.

REQUIREMENTS FOR THE MASTER OF ARTS DEGREE

Each student's program is arranged individually in consultation with the Department in relation to the student's preparation and interests, keeping in mind the value of a general familiarity with the history of philosophy.

Courses

- Philosophy 500: Modern Logic, R.N. Ansell
- Philosophy 501: Plato and Aristotle, L. Dewan
- Philosophy 502: Mediaeval Philosophy, A. P. Monahan
- Philosophy 503: British Empiricism
- Philosophy 504: Continental Idealism: Descartes to Hegel, R.C. Marshall
- Philosophy 505: Continental Existential Thought, A.P. Monahan
- Philosophy 506: Contemporary Analytic Thought, R.H. Beis
- Philosophy 507: Phenomenology, R.C. Marshall
- Philosophy 508: Augustine and Aquinas on the nature of Philosophy, A.P. Monahan
- Philosophy 509: Epistemology of Lonergan, W.A. Stewart, S.J.
- Philosophy 510: Philosophy of History, R. Gruner

- Philosophy 511: Advanced Ethical Theory, R.H. Beis
- Philosophy 512: Philosophy of Language
- Philosophy 513: Philosophical Logic, R.N. Ansell
- Philosophy 514: Philosophy of the Social Sciences, R. Gruner
- Philosophy 515: Philosophy of Science, H. Lackner
- Philosophy 516: The Philosophy of Wittgenstein, R.N. Ansell
- Philosophy 517: Metaphysics as a Knowledge of God, L. Dewan
- Philosophy 550: Staff Seminar
- Philosophy 600: Research and Thesis





Courses of Instruction

Accounting
Anthropology
Biology
Business Administration
Chemistry
Classics
Commercial Law
Economics
Education
Engineering
English
Fine Arts
French
Geology
German
History
Latin
Mathematics
Philosophy
Physics
Political Science
Psychology
Quantitative Methods for Commerce
Religious Studies
Sociology
Spanish

Unless otherwise designated all courses listed are full courses.

ACCOUNTING

C.P. Cormier	Associate Professor (Chairman)
C.A. Dixon	Lecturer
D.A. Hope	Assistant Professor
A.E. Marie	Assistant Professor
E.P. O'Neil	Assistant Professor
E.P. Rege	Assistant Professor
H.J. Schroeder	Assistant Professor
H.R.G. Deegan	Instructor
H.J. Sampson	Instructor
G.L. Vigneau	Instructor

Courses leading to a B. Comm. with a Major in Accounting

First Year

English 101*
Mathematics 113*
Elective
Elective
Elective

Second Year

Accounting 201*
Business Administration 201*
Economics 202*
English 120*
Quantitative Methods 121-122, or 122-

Third Year

Accounting 301*-321
Accounting 312*-313*
Philosophy 120*
Commercial Law 201*
Elective

Fourth Year

Accounting 303
Accounting 305
Elective
Elective
Elective

*Required Course

Note: See Quantitive Methods for Commerce Page 157

A Commerce graduate who has followed the accounting concentration and obtained the required grades normally is in a position to sit for final chartered accountancy examinations two years after receiving a commerce degree.

Commerce graduates may receive exemption from many of the courses and examinations conducted by the Institute of Chartered Accountants of Nova Scotia for students who intend to become Chartered Accountants. The exemptions are based upon specific courses and the grades obtained in the undergraduate program. Details of exemptions may be obtained from the Department of Accounting.

Arrangements also exist with the Institutes of other Provinces.

Exemptions are also granted by the Society of Industrial Accountants of Nova Scotia to Commerce graduates who register in the Industrial Accounting Course sponsored by the Society.

201: Principles of Financial and Managerial Accounting

A study of basic accounting concepts, and their application to business transactions and financial statements. An introductory consideration of asset and liability accounts, and the managerial uses of accounting.

Lectures: Four hours a week, two semesters.

LINEAR AND DYNAMIC PROGRAMMING

Prerequisite: Quantitative methods 121, or Mathematics 113, Economics 202; Business Administration 321.

Program: Programming models with business applications with emphasis on linear and dynamic programming.

Hours: Three hours a week, one semester – half course.

INTERMEDIATE FINANCIAL ACCOUNTING

Prerequisite: Accounting 201

Program: Further study of the financial accounting aspects of Accounting 201 with special reference to balance sheet accounts.

Hours: Three hours a week, one semester – half course.

ADVANCED FINANCIAL ACCOUNTING

Prerequisite: Accounting 301.

Program: Study of partnerships, consolidations, fiduciary accounting, special procedures, business investigations, and other advanced areas.

Hours: Three hours a week, two semesters.

AUDITING

Prerequisite: Accounting 301

Program: Auditing principles and procedures including verification and statement presentation of assets, liabilities, equity and profit and loss accounts.

Hours: Three hours a week, two semesters.

ACCOUNTING SEMINAR

Prerequisite: Accounting 301

Program: Intensive study of problems of income determination and asset valuation and current developments in accounting research and theory. Topics will be selected from financial and managerial accounting, auditing and other fields related to accounting.

Hours: Four hours a week, one semester – half course.

TAXATION

Prerequisite: Accounting 301

An introductory study of the theory and procedures of taxation at all levels of government.

Lectures: Three hours a week, one semester – half course.

312: INTRODUCTION TO MANAGERIAL FINANCE AND CONTROL

Prerequisite: Accounting 201

An introductory prerequisite course for further courses in financial control and cost accounting. Coverage of techniques common to these areas – financial analysis; cash and capital budgeting; cost, volume, profit and incremental analysis; inventory control; and an introduction to scientific thinking and decision theory.

Lectures: Three hours a week, one semester – half course.

313: MANAGERIAL CONTROL – COST ACCOUNTING

Prerequisite: Accounting 312

A continuation of the study of control and costing principles and procedures, with emphasis upon managerial uses in the planning and control of operations and for special decisions.

Lectures: Three hours a week, one semester – half course.

321: INTRODUCTION TO COMPUTERS

Prerequisite: Accounting 201, Mathematics 113 or equivalent

Introduction to information systems and data processing functions; systems analysis and flowcharting; computer characteristics; computer programming.

Lectures: Three hours a week, one semester – half course.

322: COMPUTER APPLICATIONS AND MANAGEMENT

Prerequisite: Accounting 321 and Quantitative Methods 201

Further study of computer-based management information systems; models and simulation; basic concepts of probability; selected topics from computer-dependent management techniques; problems of feasibility studies, controls, organization.

Lectures: Three hours a week, one semester – half course.

323: INFORMATION SYSTEMS

Prerequisite: Accounting 321

The study of computer-based data processing and information systems, including the management problems of computers in business such as organization, control and feasibility.

Lectures: Three hours a week, one semester — half course.

ANTHROPOLOGY

Dr. John Loewenstein

Prof. Kassebaum

Professor

Assistant Professor

152: INTRODUCTION TO PALAEOANTHROPOLOGY I

Prerequisite: None

A non-technical survey of man's primate background, fossil primates and fossil man.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

151: SOCIO-CULTURAL ANTHROPOLOGY

Prerequisite: None

An introduction to the nature of culture, society, primitive economics, social organization, law and government, as well as cultural change. A cultural study, contrasting primitive cultural systems with contemporary industrial society.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

152: INTRODUCTION TO CULTURAL GEOGRAPHY

Prerequisite: None

A study of the relationship between environment and man; the climatic and geographic bases of culture.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

153: ETHNOLOGY I

Prerequisite: None

A non-technical introduction to the science of peoples, their cultures and life histories as groups, with special reference to the New World.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

155: INTRODUCTION TO ARCHAEOLOGY

Prerequisite: None

'Archaeology is a science that must be lived.

Dead Archaeology is the driest dust that blows'.

Sir Mortimer Wheeler

The scope of archaeology. Dating the past. The layout of an excavation. On digging town-sites. On digging burials. Tools, photography, etc.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

250: PALAEOANTHROPOLOGY II

Prerequisite: To be left to the discretion of the professor.

A technical and more intensive treatment of the subject-matter of course No. 140. This course is complementary to No. 202 Palaeontology (Geology), which is recommended to students of Anthropology.

Texts and selected references to be announced.

Lectures: Two hours a week, two semesters.

251: CULTURAL GEOGRAPHY II

Prerequisite: To be left to the discretion of the professor.

The cultural Geography of the Americas.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

252: ETHNOLOGY II

Prerequisite: None

The Aborigines of North America.

Texts and selected references to be announced.

Lectures: Three hours a week, two semesters.

310: HISTORY OF ANTHROPOLOGY

Prerequisite: None

The course deals with the development of Anthropology from its early beginnings as a Natural Science to its present form as a synthesizing study of man. The subject will be divided into 2 major sections: Physical and Cultural Anthropology.

Texts and selected references to be announced.

Seminar course: Three hours a week.

205: COMPARATIVE RELIGION

The course, offered in the Department of Religious Studies, is recommended to students of Cultural Anthropology.

See: Religious Studies program!

206: RELIGIONS OF INDIA (See RELIGIOUS STUDIES)

207: CULTURAL GEOGRAPHY III

Prerequisite: To be left to the discretion of the professor.

The Far East

Texts and selected references to be announced.

Lectures: Two hours a week. two semesters.

208: THE BIRTH OF CIVILIZATION

Prerequisite: University History Work

A study of the earliest civilizations in the Old and in the New World: The Mediterranean East – India – China – Mesoamerica and Peru.

Open to history students.

Texts and selected references to be announced.

Lectures (illustrated by lantern slides): Three periods of 75 minutes a week, one semester only – full course.

209: ETHNOLOGY III

Prerequisite: To be left to the discretion of the professor.

Vanished and vanishing tribes.

Local cultural patterns and archaic ways of life are vanishing fast in the wake of a rapidly advancing uniform 'World Civilization'. The shortness of time left for the study of primitive mankind presents an all the greater challenge to ethnologists as we are the first generation equipped

with all the technical aids to record and preserve for posterity a true image of any human group we choose to study. Twenty or thirty years from now we shall, no doubt, have even more wonderful recording machines — but we shall have nothing to record. We are confronted with a most urgent task.

Texts and selected references to be announced.

Lectures: Two hours a week, two semesters.

ASTRONOMY

301: INTRODUCTION TO ASTRONOMY

(For details see Physics)

BIOLOGY

M. Wiles

H. Bobr-Tylingo

B. Kapoor

A. Rojo

E. Rojo

K. Thomas

Assistant Professor, Chairman

Assistant Professor

Assistant Professor

Associate Professor

Assistant Professor

Assistant Professor

Commencing September 1970 the Biology Department will offer courses of one semester duration which are organized around a "core" program. Each single semester unit is worth one half credit and units are normally taken in pairs to provide whole numbers of credits.

The "core" program is intended to provide biology students with a balanced and comprehensive spread of basic knowledge in biology which should aid him in understanding almost any of the disciplines of biology. This approach is necessary because of the very wide spread of knowledge now included in biological science. A student completing the "core" program and going on to finish a concentration in biology should be capable of continuing at graduate level after a qualifying year or honours year. Students not proceeding beyond the bachelors level should have sufficient background for teaching technical or health sciences work, after further specialized training.

Complete details of the science degree program with a concentration in biology are available to students in the Department of Biology.

BIOLOGY 105A: GENERAL BIOLOGY 1 (ARTS AND SCIENCE)

Prerequisites: None

Outline: Class designed for both Arts and Science students. An essential prerequisite for all other Biology courses, this course will nevertheless cover topics of interest to non-science students. The study will involve a detailed study of the chemical, physical and biological principles governing life processes and contributing to the characteristics of living organisms.

Time: To be announced.

Instruction: Lectures and/or seminars three hours per week, one semester.

Laboratory: Three hours per week, one semester.

Note: If successfully completed, this course must be followed by Biology 105B.

BIOLOGY 105B GENERAL BIOLOGY 2 (ARTS AND SCIENCE)

Prerequisites: Biology 105A

Outline: As for Biology 105A

Time: To be announced

Instruction: Lectures and/or seminars three hours per week, one semester.

Laboratory: Three hours per week, one semester.

Note: This course is meant to follow naturally from work done in 105A during the first semester.

BIOLOGY 125A: ANIMAL DIVERSITY

Prerequisites: Biology 105A – 105B

Outline: Systematic survey of the Animal Kingdom with emphasis on gross morphology and its relation to function. Phylogenetic relationships, the influence of physiological adaptation through the mechanisms of heredity and the involvement of evolutionary processes in the production of the diversity of modern animal life.

Representative species will be studied to illustrate this connection between animal morphology and the ecology, genetics and evolution of animals.

Text: To be announced.

Instruction: Lectures and seminar three hours per week, one semester.

Laboratory: Three hours per week, one semester.

BIOLOGY 125B: BIOLOGY OF LOWER PLANTS

Prerequisites: Biology 105A–105B

Study of the variety and unity of plant life and forms, based on the different groups of lower plants, their morphology and activities, their classification and evolution.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 203A: CYTOLOGY 1

Prerequisites: Biology 105A–105B, Chemistry 111 or 121

Study of the gross structure of plant and animal cells and cell organelles in relation to heredity and development.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 203B: PHYSIOLOGY 1.

Prerequisites: Biology 105A–105B, Chemistry 111 or 121

An introduction to the essential aspects of biochemistry and cellular physiology and a discussion of how they underlie the basic processes carried on by organisms.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 206A: GENETICS 1

Prerequisites: Biology 105A, 105B, 125A, 125B, Chemistry 111 or 121

Study of the principles of inheritance in plants, animals and other organisms at particulate and molecular levels.

Note: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester

BIOLOGY 206B: EVOLUTION

Prerequisites: Biology 105A–105B, 125B, 206A, Chemistry 111 or 121

Outline: A study of the manifestations, mechanisms, and biological implications of organic evolution. Some aspects of the evolutionary history of life on earth with emphasis on the origins of living animals.

Note: To be announced.

Instruction: Lectures or seminars three hours per week, one semester.

Laboratory: Three hours per week, one semester.

BIOLOGY 207A: ECOLOGY I

Prerequisites: Biology 125A, 125B, 203A, 203B.

Biology 206A or 206B may be taken concurrently.

Outline: The environmental control of the physiology, and thus the ecology, of plants and animals. An introduction to the concepts of ecological theory and practice. A study of representative natural habitat types as found in Nova Scotia.

Text: Fundamentals of Ecology – E.P. Odum, 3rd. ed. 1969 (Sinauer).

Laboratory Manual of General Ecology – G.W. Cox, 1967 (Brown).

Instruction: Two hours lectures plus one hour seminar a week, one semester.

Field Work or Laboratory: Three hours per week (on average), one semester.

Note: If successfully completed, this course must be followed by Biology 207B.

BIOLOGY 207B: ECOLOGY 2

Prerequisites: Biology 207A

Outline: A study of population, community and applied ecology. Terrestrial ecology and soils. Techniques for the identification of animals and plants. Relationship between the quality and quantity of the environment and the forms of life found in natural ecosystems. Study of organisms collected during field work in Biology 207A.

Texts: As 207A

Instruction: As 304A.

Laboratory: Three hours per week, one semester.

Note: This course is meant to follow naturally from work done in 207 during the first semester.

BIOLOGY 311A: PHYSIOLOGY 2

Prerequisites: Biology 105A–105B, 203B (Chemistry 202 concurrent is desirable).

A comprehensive study of the physiological processes of organisms from a chemical and physical point of view.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 311B: CYTOLOGY 2

Prerequisites: Biology 105A, 105B and 311A

Advanced topics in the structure of cellular organelles and chromosomes and their behaviour in cell cycles.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 312B: GENETICS 2

Prerequisites: Biology 105A–105B, 206A, 206B

Advanced topics in genetics including genetic code, protein synthesis, mutations, polyploidy, microbial genetics and population genetics.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 313A: VERTEBRATE ANATOMY

Prerequisites: Biology 105A–105B 125A, and instructor's consent.

~~comprehensive~~ study of gross anatomy of the different systems of ~~representatives~~ of each major class, beginning with Amphioxus and ~~terminating~~ with the Mammals. Special emphasis would be given to ~~structural~~ modifications within each group, demonstrating that the ~~modification~~ in structure is an adaptation of the organism.

The main objective of this course is to emphasize the unity which ~~underlies~~ the diversity of the various classes of vertebrates.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week, one semester.

~~Laboratory:~~ Three hours a week, one semester.

BIOLOGY 313B: PHYSIOLOGY 3

~~Prerequisites:~~ Completed core.

~~An~~ analysis of the functions of major organs and organ systems in ~~vertebrates~~.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week, one semester.

~~Laboratory:~~ Three hours a week, one semester.

BIOLOGY 314A: EMBRYOLOGY

~~Prerequisites:~~ Completed core.

~~A~~ study of the processes that are involved in the transformation of the ~~fertilized~~ egg into a new individual. Emphasis will be on Vertebrate ~~Embryology~~.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week, one semester.

~~Laboratory:~~ Three hours a week, one semester.

BIOLOGY 315A: MORPHOLOGY OF VASCULAR PLANTS

~~Prerequisites:~~ Biology 105A-105B and 125B

~~Outline:~~ Structure, development and evolution of major taxa of ~~vascular~~ plants – Petridiphytes, gymnosperms and flowering plants, ~~both~~ extinct and extant.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week, one semester.

~~Laboratory:~~ Three hours a week, one semester.

BIOLOGY 315B: HISTOLOGICAL MICROTECHNIQUE

Prerequisites: Biology 125A, 125B

Outline: Methods of staining living tissues or living organisms, whole fixed animals and plants, sectioned animal and plant materials. The histology of the different kinds of vertebrate tissues and the different kinds of plant tissues.

Text: To be announced.

Instruction: Lectures three hours per week, one semester.

Laboratory: Three hours per week, one semester.

BIOLOGY 325A: BIOLOGY OF FISHES 1

Prerequisites: Completed core. Biology 313A.

Outline: A study of the embryology, anatomy, physiology and classification of the main organ systems of the lower orders of fishes. In classification and geographical distribution emphasis will be placed on the marine Northwest Atlantic fishes and the freshwater fishes of Nova Scotia.

Text: To be announced.

Instruction: Lectures two hours per week, one semester.

Laboratory: Three hours per week, one semester.

Note: If successfully completed, this course must be followed by Biology 325B.

BIOLOGY 325B: BIOLOGY OF FISHES 2

Prerequisites: Biology 325A

Outline: A study of the embryology, anatomy, physiology and classification of the main organ systems of the higher orders of fishes. In classification and geographical distribution emphasis will be placed on the marine Northwest Atlantic fishes and the freshwater fishes of Nova Scotia.

Text: To be announced.

Instruction: Lectures two hours per week, one semester.

Laboratory: Three hours per week, one semester.

Note: This course is meant to follow naturally from work done in 325A during the first semester.

BIOLOGY 326A: BIOLOGY OF INSECTS

Prerequisites: Completed core.

A study of **insects** including their characteristics, phylogenetic relationships, **anatomy**, metamorphosis and identification. Economic effects of **insects**; their control by natural and artificial means.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BIOLOGY 327 B: PLANT TAXONOMY

Prerequisites: Completed core.

An introduction to the principles of plant variation, origin, distribution, evolution, and classification. Major emphasis will be to identify and classify **vascular plants** of Nova Scotia.

Text: To be announced.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

BUSINESS ADMINISTRATION

G.P. Chénier

Associate Professor (Chairman)

V. Snyder

Assistant Professor

D.A. Hope

Assistant Professor

D.E. Innes

Lecturer

A.E. Marie

Assistant Professor

D.R. Quereshi

Assistant Professor

G.P. Rege

Assistant Professor

E.J. Schroeder

Assistant Professor

R.D. Tamilia

Lecturer

Courses leading to a B. Comm. with a Major in Business Administration

First Year

English 101*

Mathematics 113*

Elective

Elective

Elective

Second Year

Accounting 201*

Business Administration 201*

Economics 202*

English 120*

Quantitative Methods 121 – 122,
or 122 – 201

Third Year

Business Administration 306
Business Administration 312-314*
Elective
Philosophy 120*
Commercial Law 201*
*Required Course

Fourth Year

Business Administration 310
Elective
Elective
Elective
Elective

Note: See Quantitive Methods for Commerce Page 157

201: PRINCIPLES OF MANAGEMENT

A study of fundamental concepts of management; decision making, management planning, organizing, motivating and controlling. A primary objective of this course is to introduce the systems concept as a foundation for further study in the program.

Lectures: Three hours a week, two semesters.

202. LINEAR AND DYNAMIC PROGRAMMING

Prerequisite: Quantitative Methods 121, or Mathematics 113
Economics 202; Business Administration 321.

Programming models with business applications with emphasis on linear and dynamic programming.

Lectures: Three hours a week, one semester – half course.

306: ORGANIZATIONAL BEHAVIOUR

Prerequisite: Business Administration 201

An introductory study of human behaviour in formal organizations with emphasis on patterns and theories of behaviour in industry. The course exposes the student to behavioural science concepts through readings, a text, classroom sessions, and the application of course concepts to the analysis of cases.

Lectures: Three hours a week, two semesters.

308: PERSONNEL MANAGEMENT

Prerequisite: Business Administration 201

Organization and management of personnel; manpower planning; improvement of performance; motivation; communication; supervision of the work group; remuneration.

Lectures: Three hours a week, one semester – half course.

300 INDUSTRIAL RELATIONS

Prerequisite: Business Administration 201

An introduction to the field of industrial relations, a study of union structure and operation, collective bargaining and allied material..

Lectures: Three hours a week, one semester – half course.

300 BUSINESS POLICY

Prerequisite: Business Administration 201 and the equivalent of two additional 300 level Business Administration full courses.

The perspective of top management; sizing up situations, formulating policies, discovering opportunities and planning programs of action; selecting administrative personnel and putting plans into action; follow up and appraisal; day to day administrative problems; business leader and public responsibility.

Lectures: Three hours a week, one semester – half course.

300 INTRODUCTION TO MANAGERIAL FINANCE AND CONTROL

Prerequisite: Accounting 201

An introductory prerequisite course for further courses in finance, control and cost accounting. Coverage of techniques common to these areas: financial analysis; cash and capital budgeting; cost, volume, profit and incremental analysis; inventory control; economics of production; and an introduction to scientific thinking and decision theory.

Lectures: Three hours a week, one semester – half course.

300 MANAGERIAL CONTROL – COST ACCOUNTING

Prerequisite: Business Administration 312

A continuation of the study of control and costing principles and procedures, with emphasis upon managerial uses in the planning and control of operations and for special decisions.

Lectures: Three hours a week, one semester – half course.

300 FINANCIAL MANAGEMENT

Prerequisite: Business Administration 312

Study of the finance function; financial decisions – investment in fixed and working capital, capital structure, and dividends; financial policy formulation and administration; mergers and reorganizations.

Lectures: Three hours a week, one semester – half course.

315: INVESTMENTS

Prerequisite: Business Administration 314

The analysis of investment values; study of financial markets in relation to the problems of financing business enterprise and undertaking portfolio management.

Lectures: Three hours a week, one semester – half course.

316: CORPORATION FINANCE

Prerequisite: Business Administration 314

Theory and practice of corporation finance as related to management and financing of business enterprise; study of financial variables and optimization problems of financial management.

Lectures: Three hours a week; one semester – half course.

317: INTRODUCTION TO PRODUCTION MANAGEMENT

Prerequisite: Business Administration 201, Mathematics 113, Quantitative Methods 121.

An introduction to the production function and process including coverage of the systems concept and the basic techniques for decision making in the areas of planning and control.

Lectures: Three hours a week, one semester – half course.

319: BUSINESS AND ITS ENVIRONMENT

Prerequisite: Business Administration 201; Economics 202

Business and its economic and political environment; the responsibilities of business.

Lectures: Three hours a week, one semester – half course.

320: TECHNIQUES OF PRODUCTION MANAGEMENT

Prerequisite: Business Administration 317, 321, Quantitative 121

A more advanced course in the study of the production function including control of inventory, costs using mathematical techniques and the computer.

Lectures: Three hours a week, one semester – half course.

20. INTRODUCTION TO COMPUTERS

Prerequisite: Accounting 201 and Quantitative Methods 201

Introduction to information systems and data processing functions; system analysis and flowcharting; computer characteristics; computer programming (FORTRAN IV); survey of other languages.

Course: Three hours a week, one semester – half course.

21. COMPUTER APPLICATIONS AND MANAGEMENT

Prerequisite: Business Administration 321

Further study of computer-based management information systems; model and simulation; basic concepts of probability; selected topics in computer-dependent management techniques; problems of feasibility studies, controls and organization.

22. INFORMATION SYSTEMS

Prerequisite: Business Administration 321

The study of computer-based data processing and information systems, including the management problems of computers in business such as organization, control and feasibility.

Course: Three hours a week, one semester – half course.

23. INTRODUCTION TO MARKETING

Prerequisite: Business Administration 201

A study of principles and fundamental concepts of marketing and marketing management; pricing, promotion, merchandising, distribution structure and marketing research.

Course: Three hours a week, one semester – half course.

24. MARKETING MANAGEMENT

Prerequisite: Business Administration 325

Managerial in focus, this course is devoted to analysing marketing opportunities, a study of marketing activity and its organization, planning the marketing program and controlling the marketing effort.

Course: Three hours a week, one semester – half course.

327: MARKETING RESEARCH

Prerequisite: Business Administration 325 and Quantitative Methods 201 (or equivalent)

An introductory course in the nature, methods, procedures and application of marketing research.

Lectures: Three hours a week, one semester – half course.

328: MARKETING COMMUNICATION AND ADVERTISING

Prerequisite: Business Administration 325

An introduction to the study of advertising principles and practice including advertising strategies, media presentation and evaluation effectiveness.

Lectures: Three hours a week, one semester – half course.

329: INTERNATIONAL MARKETING

Prerequisite: Business Administration 325

An introduction to the nature and environment of international marketing including the study of the international consumer, product policy, distribution promotion, research and management.

Lectures: Three hours a week, one semester – half course.

330: SALES MANAGEMENT

Prerequisite: Business Administration 325

A study of the managerial problems involved in sales management including the recruitment, training, compensation and motivation of sales personnel and the control and integration of the personal selling effort.

Lectures: Three hours a week, one semester – half course.

CHEMISTRY

E.R. Hayes

D.H. Davies

J. Elhanan

J. Ginsburg

J.W. Murphy, S.J.

G. Noel

A.T. Sabeen

K. Vaughan

Associate Professor, Chair

Assistant Prof

Associate Prof

Assistant Prof

Associate Prof

Lect

Prof

Assistant Prof

The program of the Chemistry Department is designed to satisfy two purposes:

to fulfill the requirements for the general degree of Bachelor of Science and the Honours Bachelor of Science degree.

These degrees will permit graduates to enter the work force or graduate school with a background at least equal to that provided by other Universities in Canada and the United States.

to introduce students in other disciplines to the ideas of Chemistry and provide them with Chemical skills necessary for their professional development.

All members of staff are engaged in active research projects, and senior undergraduates are expected and encouraged to contribute to these projects. Some jobs, both during the term and in the summer, are available for senior undergraduates.

CHEMISTRY 111: AN INTRODUCTION TO CHEMISTRY

Prerequisite: None.

The fundamental laws and principles of Chemistry are explored and applied in the study of selected nonmetals, metals and their compounds.

Text: To be announced

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 121: GENERAL CHEMISTRY

Prerequisites: Chemistry 111 or equivalent; Mathematics 121 to be taken concurrently.

A critical survey of the most important theories used to explain the behavior of gases, liquids, solids and solutions.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 202: INTRODUCTORY PHYSICAL CHEMISTRY

Prerequisites: Chemistry 121; Mathematics 121 (with special permission this course may be taken concurrently).

Fundamental thermodynamics, electrochemistry, kinetic theory of matter, surface chemistry and catalysis.

Text: To be announced

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 203: CHEMISTRY OF THE ELEMENTS

Prerequisites: Chemistry 121

An integrated course in inorganic and organic Chemistry emphasizing structure and bonding. Fundamental concepts of organic chemistry presented in the second semester.

Text: To be announced

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 204: ELEMENTARY ORGANIC CHEMISTRY

Prerequisites: Chemistry 121 or Chemistry 111 with permission of Department.

A comprehensive treatment of organic chemistry for non-chemistry majors. The principal functional classes, reaction mechanisms, physical chemistry and physical methods are discussed in the lecture and illustrated in the laboratory.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 304: INTERMEDIATE ORGANIC CHEMISTRY

Prerequisites: Chemistry 203

The study of aliphatic, aromatic and heterocyclic compounds with emphasis on modern methods and concepts in stereochemistry, reaction mechanisms and physical properties.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 306: PHYSICAL CHEMISTRY

Prerequisites: Chemistry 202; Mathematics 121 and 222 (the latter may, in certain cases, be taken concurrently).

quantum theory, statistical thermodynamics, chemical kinetics and reaction mechanisms.

To be announced

Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 307: ANALYTICAL CHEMISTRY

Prerequisites: Chemistry 121 and one of Chemistry 202, 203 or 204.

Chemical and spectroscopic methods of instrumental analysis and introduction to the techniques of separation Chemistry.

To be announced

Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 404: ADVANCED ORGANIC CHEMISTRY

Prerequisites: Chemistry 304 and Chemistry 306 (the latter may be currently).

Advanced topics in stereochemistry, heterocyclic compounds, natural products and polymers. In the laboratory the student will perform synthesis and characterize structure by spectroscopic methods.

To be announced

Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

CHEMISTRY 407: SELECTED CHAPTERS IN INSTRUMENTAL ANALYSIS

Prerequisites: Chemistry 307

Seminar-laboratory course designed to present topics in electronic circuits, radio-chemistry, spectroscopy and electrochemistry.

To be announced

Laboratory: Five hours per week, two semesters.

CHEMISTRY 410: RESEARCH THESIS

Prerequisites: Restricted to fourth year students in Honour's program.

The student will carry out a research project under the direction of one of the members of the Department. The student will prepare a thesis on his work and present it orally.

Laboratory: A minimum of six hours per week, two semesters.

CHEMISTRY 411: ADVANCED TOPICS IN PHYSICAL CHEMISTRY

Prerequisites: Chemistry 306

A course on special topics selected from advanced areas of physical Chemistry.

Text: To be announced

Lectures: Three hours a week, two semesters.

Laboratory: None.

CHEMISTRY 412: QUANTUM CHEMISTRY

Prerequisites: Chemistry 306, Physics 121 and Mathematics 222.

Text: To be announced.

Lecture: Three hours a week, two semesters.

Laboratory: None.

CLASSICS

Mildred Harrington
Rev. M.J. O'Donnell, S.J.
Geraldine T. Thomas
Vincent McB. Tobin

Instructor
Associate Professor
Lecturer
Assistant Professor

LATIN

LATIN 101:

A course in the essentials of Latin for students who have not completed Matriculation Latin.

Text: Latin Course for Schools, Part I and Part II, Ch. 1 - 27, Wilding.

Lectures: Four hours a week, two semesters.

LATIN 102: FIRST YEAR COLLEGE LATIN

Prerequisite: Matriculation Latin.

A thorough study of Latin syntax with selections from various authors exemplifying the syntax explained in the given chapter.

Cicero's Pro Archia. Latin Course For Schools, Part II, Ch: 27 to Part III – Wilding.

Hours: Three hours a week, two semesters.

LATIN 120: INTRODUCTION TO LATIN EPIC POETRY

Emphasis is placed on the exact rendering of the thought content into idiomatic English. Prose composition stresses the exact rendering of English into idiomatic Latin.

Text: Outline of Latin Prose Composition – Vincent and Mountford; Book II, IV – Vergil; Aeneid (complete, in translation).

Hours: Three hours a week, two semesters.

LATIN 200: THE POETRY OF HORACE

Critical analysis and appreciation of Horace's art and ideals. Prose composition.

Text: Odes, Satires, Ars Poetica – Horace

LATIN 300:

Literary course on Tacitus, Livy and Juvenal. Roman history from Augustus to the beginning of the middle ages.

LATIN 301: CICERO'S RHETORIC

Intensive study of Cicero's Rhetoric.

Prose Composition.

Texts: Pro Lege Manilia, Pro Marcello, Pro Ligario

LATIN 302:

Literary course on Cicero (De Amicitia, De Senectute) and Lucretius (De Rerum Natura).

LATIN 400:

Literary course, the content of which may be varied according to the needs and interests of the student. Directed readings and research.

GREEK

GREEK 120: INTRODUCTORY GREEK

An introductory course covering the major grammatical points of the Greek language. This is a special programmed Greek course, placed emphasis on the oral aspects of language learning.

Lectures: Three hours per week, plus Language Laboratory.

This course will be followed in succeeding years by more advanced courses in the reading and interpretation of Classical authors.

CLASSICAL LITERATURE

CLASSICS 201: CLASSICS IN TRANSLATION

The Classical Literature of Greece and Rome in Translation. This course is especially recommended to all Arts students who are not taking Latin in their programme, and also to students of ancient history.

Texts: Various selections from the Classical writers of Greece and Rome.

Lectures: Three hours a week (or equivalent).

CLASSICAL HISTORY

CLASSICS 120: THE CLASSICAL CIVILIZATIONS OF GREECE AND ROME

A general survey of the civilizations of ancient Greece and Rome with particular regard to political organization and cultural contribution to modern western society.

Lectures: Three hours a week.

CLASSICS 203: HISTORY OF GREECE

A concentrated study of selected topics dealing with the main features of Greek history, stressing both the greatness and the weakness of ancient Greek society. This course is designed as a companion and parallel to Classics 204, which deals in the same manner with the history of Rome. This course may also be used as a history credit.

Lectures: Three hours a week (or equivalent).

CLASSICS 204: HISTORY OF ROME

A concentrated study of selected topics dealing with the main features of Roman history, stressing both the greatness and weakness of the

World. This course is designed as a companion and parallel to **Classics 203**, which deals in the same manner with the history of **Rome**. This course may also be used as a history credit.

LECTURES: Three hours a week (or equivalent).

CLASSICS 205: HELLENISTIC HISTORY

Prerequisite: one course in Classics or history. Other students may be admitted at the discretion of the instructor.

This course considers the characteristics of the Hellenistic world from **Alexander the Great** until the arrival of **Pompey** in the east (334 B.C. to 60 B.C.). This is the period of the expansion of Greek culture over the **western world** (Hellenism), giving rise to a highly complex historical era, containing many of the problems and features of 20th century life.

This course may also be used as a history credit.

LECTURES: Three hours a week or equivalent.

COMMERCIAL LAW

201:

Meaning of law; contracts; special types of contracts; real property; mortgages; partnerships; corporation; credit transactions; statutes affecting business taxation.

LECTURES: Three hours a week, two semesters.

ECONOMICS

R.L. Ruth

Associate Professor, Chairman

E.J. Doak

Assistant Professor

L.A. Mirza

Assistant Professor

G.B. Shaw

Lecturer

S. Swianiewicz

Professor

J.J. Vorstermans

Associate Professor

Recommended courses leading to a B. Comm. with a major in Economics

First Year

English 101*

Mathematics 113*

Economics 102

Elective

Elective

Second Year

English 120*

Quantitative Methods 121-122 or 122-201

Accounting 201*

Business Administration 201* -

Economics 202*

Third Year

Commercial Law 201*
 Economics 302+
 Economics 306*
 Philosophy 120*
 Elective
 * Required Course

Fourth Year

Economics 303+
 Economics Elective
 Economics Elective
 Elective
 Elective

+ The student may take either one of these or Math 120A – 120B to fulfill this requirement for a major. If he intends to pursue graduate studies the student is advised to take both Economics 302 and Economics 303.

Note: See: Quantitative Methods for Commerce-Page 157

Recommended courses leading to a B.A. with a Major in Economics

First Year

English 101
 Mathematics 113
 Economics 102
 Elective
 Elective

Second Year

English 120
 Economics 202
 History 111 (120) or 202
 Philosophy 120
 Elective

Third Year

Economics 302+
 Economics 306
 Elective
 Elective
 Elective
 *Required Course

Fourth Year

Economics 303+
 Economics Elective
 Economics Elective
 Elective
 Elective

+ The student may take either one of these or Math 120A – 120B to fulfill this requirement for a major. If he intends to pursue graduate studies the student is advised to take both Economics 302 and Economics 303.

102: ECONOMIC THEORY IN HISTORICAL PERSPECTIVE

A course in the development of modern economic society with particular emphasis on the Canadian and U.S. economies. The presentation of microeconomic and macroeconomic theory, problems and policies is designed for students not planning to major in economics.

Lectures: Three hours a week, two semesters.

PRINCIPLES OF ECONOMICS

Introduction to economic analysis covering macroeconomic theory; income determination; national accounting; business fluctuations; money and banking; international economics; economic growth; and general price theory; theory of the firm; market structures; production, cost, revenue and profit maximization; theory of distribution.

Lectures: Three hours a week, two semesters.

MATHEMATICAL ECONOMICS

Prerequisite: Mathematics 113, Economics 202

Introduction to mathematical methods with emphasis on topics useful to economics; set theory, relations, functions, probability, statistics, finite differences, matrix algebra. Applications of these methods are made to the solution of economic problems.

Lectures: Three hours a week, two semesters.

BUSINESS AND ECONOMIC STATISTICS

Prerequisite: Economics 202

Applications of statistical methods; collection; analysis and interpretation of statistical data; frequency distribution; measures of central tendency and dispersion; probability theory; binomial, normal, and sampling distributions; testing hypotheses and estimations of parameters; index numbers; time series, regression and correlation analysis.

Lectures: Three hours a week, two semesters.

ECONOMIC HISTORY OF NORTH AMERICA

Prerequisite: Economics 202

This course acquaints students with the leading events and processes of economic history of North America in general, and of Canada in particular. Among the topics to be discussed are: the development of agriculture, industry and trade; the economic conditions which shape banking developments in both countries; the colonial links and ties; industrial and financial capitalism; twentieth century developments of industry, labour organizations, investments and trade pattern.

Lectures: Three hours a week, two semesters.

305: ECONOMIC HISTORY OF EUROPE

Prerequisite: Economics 202

The economic history of Europe from the Aegean civilizations to the establishment of the Common Market. Stages of economic growth: birth of European civilization; medieval economic society; mercantilism; the first Industrial Revolution; laissez-faire and industrial capitalism; Europe since 1914.

Lectures: Three hours a week, two semesters.

306: INTERMEDIATE ECONOMIC THEORY

Prerequisite: Economics 202

A balanced treatment of macroeconomic theory and microeconomic theory beyond the principles level.

Lectures: Three hours a week, two semesters.

307: MONEY AND BANKING

Prerequisite: Economics 202

Money, its standards, supply and value; inflation and foreign exchange; Canadian Banking System and other banking systems and public finance; international monetary problems and their solutions; developments in international trade.

Lectures: Three hours a week, two semesters.

309: THE CANADIAN ECONOMY

Prerequisite: Economics 202 and the consent of the instructor.

The application of economic theory to the study of the structure and problems of the Canadian economy.

Lectures: Three hours a week, two semesters.

310: DEVELOPMENT ECONOMICS

Prerequisite: Economics 202

Alternative theories of growth and development; economic structure of developing and developed countries; economic and non-economic determinants of growth; development policy; role of government; monetary policy, foreign trade and foreign aid; some lessons of experience in growth and change.

Lectures: Three hours a week, two semesters.

302: DEVELOPMENT OF ECONOMIC IDEAS

Prerequisite: Economics 202

The course traces the development of economic ideas from the Middle Ages to the present. Students will be introduced to the theories of the major economic schools especially in the light of their contribution to contemporary economic thinking.

LECTURES: Three hours a week, two semesters.

303: INTERNATIONAL ECONOMICS

Prerequisite: Economics 202

The course offers students an analysis of theory, institutions, and policy pertaining to economic relations between nations. Foreign exchange markets, balance of payments, adjustment mechanism and international capital flows are discussed. The technique of the I.M.F. will be explained, together with the deficiencies of this world body. Proposals for world monetary reform will be scrutinized.

LECTURES: Three hours a week, two semesters.

305: COMPARATIVE ECONOMIC SYSTEMS

Prerequisite: Economics 202

Analysis of the differences in decision-making and in the institutional framework of the three basic types of contemporary economies: (1) those produced by the North Atlantic civilization; (2) those built up in consequence of the imposition of the Communist doctrine; (3) those marked by the underdevelopment prevailing in Asia, the Middle East and the subtropical areas of the world.

LECTURES: Three hours a week, two semesters.

306: INDUSTRIAL ORGANIZATION

Prerequisite: Economics 202 and 306 or permission of instructor.

The concept of industry; institutional forms of economic units; market structure; policies for promotion of competition; the methods of governmental control of key industries; international aspects of industrial organization.

LECTURES: Three hours a week, two semesters.

307: PUBLIC FINANCE

Prerequisite: Economics 202

The role of taxes and government expenditures in terms of economic analysis. Application to Canada including a study of Federal-Provincial relations.

Lectures: Three hours a week, two semesters.

319: LABOUR ECONOMICS

Prerequisite: Economics 202 or permission of the instructor.

Factors affecting wages, working conditions and employment in industrial societies; the role of market forces and collective bargaining in wage determination; the development of labour unions and collective bargaining in Canada the United States and Europe; the effect of labour unions on the economy; our changing labour force and manpower policies for the future.

Lectures: Three hours per week, two semesters.

323: SOVIET-TYPE ECONOMIES

Prerequisite: Economics 202

This course will cover such topics as the following: Development of Soviet Economics – historical background, institutional framework, rate of growth; the problems of saving, investment and central planning; the Origin of the Soviet Block – Communist international economic relations; the problems of economic integration in Eastern and Western Europe; East-West trade, economic reforms in Eastern Europe; the Soviet Economies in Asia.

Lectures: Three hours a week, two semesters.

EDUCATION

M. MacMillan Acting Dean

Assistant Professor

B. Hanrahan

Lecturer

F. Phillips

Assistant Professor

L. Scobbie

Associate Professor

D. Weeren

Associate Professor

F. Dockrill

Assistant Professor

(B. ED. COURSES)

401: PHILOSOPHY OF EDUCATION

A fundamental study of the nature and aims of education culminating in the formulation of a truly humanistic Philosophy of Education for modern times.

Lectures: Three hours a week, two semesters.

PSYCHOLOGY OF EDUCATION

A study of the nature, equipment, growth, development, evaluation, and adjustment of the learner. Psychology 120 or equivalent is the normal prerequisite or concurrent requirement but may be waived for students who have completed readings prescribed by the School of Education.

Classes: Three hours a week, two semesters.

GENERAL METHODS OF TEACHING

The application of the elementary principles of Philosophy and Psychology of Education to the organization and presentation of subject matter in the classroom.

Classes: Three hours a week, two semesters.

HISTORY OF EDUCATION

A survey of our educational heritage aimed at assisting in the formation of sound educational principles and practices.

Classes: Three hours a week, two semesters.

PRACTICE TEACHING

Practice teaching sessions will consist of observation and practice teaching in the public school system. The extent and dates of these sessions will be arranged by the Education staff.

CONTENTS AND METHODS OF SPECIFIC HIGH SCHOOL SUBJECTS

The seminars comprising this course discuss the concepts and competencies which the junior and senior high school teacher of a given subject should be concerned with developing in his students, and the methods most conducive to that development.

Classes: Three hours a week, two semesters.

EDUCATION (M.A. COURSES)

EDUCATION 510: GRADUATE RESEARCH SEMINAR

A seminar in research techniques and statistical concepts culminating in the presentation and defence of theses.

PHILOSOPHY 511: PHILOSOPHICAL CRITIQUE OF MOTIVATION

A lecture and seminar course on the cultural significance of the metaphysics of motivation. As a study of social exigencies in a learning situation, this course is co-extensive with Philosophy 521 from the perspective of ultimate motivations.

EDUCATION 516: ANGLO-AMERICAN EDUCATION

A lecture and seminar course on education in the United Kingdom, United States of America, English-speaking Canada, and selected countries with related educational patterns, aimed at the identification and analysis of common and distinguishing properties, practices and problems.

Sessions: Three hours a week, two semesters.

EDUCATION 519: EDUCATIONAL ADMINISTRATION

A seminar and lecture course analyzing the executive requirements of institutional direction.

Sessions: Three hours a week, two semesters.

PHILOSOPHY 521: THEORY OF KNOWLEDGE

A lecture and seminar course based on Lonergan's Insight and directed towards developing an epistemology inherent in the learning process.

Sessions: Three hours a week, two semesters.

COMPARATIVE EDUCATION 526: CONTINENTAL EDUCATION

A lecture and seminar course on education in selected Continental European countries, including France, and selected societies with related educational patterns, including French-speaking Canada, aimed at the identification and analysis of common and distinguishing properties, practices and problems.

Sessions: Three hours a week, two semesters.

PSYCHOLOGY 532: PERSONALITY DEVELOPMENT

Prerequisite: Ed. 402, Psych. 331, 332, or by permission of the Professor.

A lecture and seminar course dealing with the main theoretical aspects of personality and of personality development. Emphasis will be placed on the Dynamic interpretation of development, with particular reference to the school situation at all ages.

PSYCHOLOGY 542: MOTIVATION AND LEARNING

Prerequisite: Education 402 (Psychology of Education) and Psychology 332 (Psychology of Learning and Motivation), (or the permission of the Professor)

A seminar course which discusses the tenets of modern theory as developed through the findings of experimental psychology. The following are examples of the type of topic dealt with: development of learning theory, conditioning, reinforcement, punishment, memory, concept learning. Application of learning theory to the classroom situation will be encouraged.

Sessions: Three hours a week, two semesters.

PSYCHOLOGY 552: PSYCHOPATHOLOGY OF EDUCATION

Prerequisite: Education 402 and Psych. 532, (or the permission of the Professor)

A lecture and seminar course devoted to the study of the causes and possible remedy of failure in educational performance and in emotional adjustment, these being considered separately and also in their effects on each other.

Sessions: Three hours a week, two semesters.

PSYCHOLOGY 562: SOCIAL PSYCHOLOGY

Prerequisite: Education 402 (Psychology of Education) and Psychology 332 (Social Psychology), or the permission of the professor.

A seminar course which deals with the findings of experimental social psychology and the attempt to explain social behavior in terms of learning theory. The following are examples of the type of topic dealt with: theories of cognitive consistency, perception of persons, attitude development and change, prejudice, communication, game theory. The classroom is a social situation and application of the findings discussed will be encouraged.

ENGINEERING

Ryan, J.L.
Warner, Donald B.
Gentham, D.A.
Ruddy, V.R.
Maloney, D.L.
Howes, H.G.

Professor
Assistant Professor
Assistant Professor
Assistant Professor
Assistant Professor
Instructor

102: ENGINEERING MEASUREMENTS

A course covering the theory and practices involved in all types of engineering measurements. The course material falls into two major divisions: 1) Surveying and 2) Electrical, Mechanical and other measurements.

1) Surveying methods, measurement of distance, difference in elevation, direction angles. Circular curves, area and earthwork calculations; applications of astronomy to engineering.

2) Theory of measurements, analysis of experimental data. Methods and equipment for such measurements as electrical, dimensional, pressure, flow, temperature, thermal conductivity, force, strain, sound, nuclear radiation.

Text: To be announced.

Lectures: Three hours lectures, two semesters.

Laboratory: Three hours, two semesters.

103: SURVEYING FIELD COURSE

Prerequisite: Engineering 102

Practical surveying problems; the orderly compilation and recording of survey data. Transit and tape surveys, curve layouts, differential levelling. Profile plots and contour mapping. Astronomical observations.

Text: To be announced.

105: PRINCIPLES OF ENGINEERING

An engineering course for freshmen which discusses the philosophy of preliminary design and introduces the concepts of energy, economics, thermodynamics, human factors and how these concepts are used by engineers in their approach to engineering problems.

Text: An Introduction to Engineering & Engineering Design, Second Edition—Edward V. Krick (John Wiley & Sons)

Engineering Design Computation Manual — David E. Boddy, Ph.D.

Lectures: Three hour lectures, two semesters.

Laboratory: Three hours a week, two semesters.

106: ENGINEERING DESIGN GRAPHICS

Engineering drawing and sketching with emphasis on sketching, analysis and synthesis of problems by using graphical methods as part of the design process, reading drawings, simple design projects.

Engineering Design Graphics — James H. Earle, (Addison Wesley Publishing Company)

Engineering Graphics and Design Problems — Earle, Cleland, Stark, Wood, Burdell, Vogel, and Guerard (Addison Wesley Publishing Company)

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

IV. DESIGN AND DESCRIPTIVE GEOMETRY PROBLEMS

Prerequisite: Engineering 106.

Topics: Descriptive Geometry, plotting graphs and nomographs, graphical methods and curve fitting, team design, projects with emphasis on creativity.

Text: Engineering Design Graphics as for Engineering 106.

Design and Descriptive Geometry Problems — Earle, Cleland, Stark, Wood, Burdell, Vogel, and Guerard (Addison Wesley).

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

V. DESCRIPTIVE GEOMETRY

Prerequisite: Engineering 106, Engineering 107

Topics: on points, lines, plane and warped surfaces and development. Practical application of descriptive geometry as an engineering tool; problems related to construction, topographical, geological and mining applications.

Text: Applied Descriptive Geometry — Warner and McNeary (McGraw-Hill)

Applied Descriptive Geometry Problems — Warner and Douglass (McGraw-Hill)

Lectures: one hour a week, on semester.

Laboratory: Three hours a week, one semester.

VI. GRAPHIC STATICS

Prerequisites: Engineering 106, Engineering 107, Mathematics 121 (concurrently)

Equilibrium polygon and polygonal frames for all systems of loads; graphical representation of shear and moment for non-continuous beams; roof trusses, bents, including dead and live loads with fixed ends and ends on rollers; simple cantilevers.

Text: Mechanics for Engineers – Beer & Johnson.

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

204: COMPUTER SCIENCE

An introduction to computer methods and the analysis of Engineering problems using the computer, including: introduction, history, philosophy, Number Systems, Computer logic, logic circuits, the physical computer components, machine language and finally Fortran Language.

Text: Computer Science A First Course—Forsythe, Keenan, Orin & Stenberg (John Wiley & Sons, Inc.)

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

301: KINEMATICS

Prerequisites: Engineering 106, Engineering 107, Mathematics 121.

Displacement diagrams for linkages, instant centers, layout and drawings of some common mechanisms. Velocity determinations for linkages using instant centers and velocity vectors. Acceleration determinations with the use of acceleration diagrams, coriolis acceleration. Solution of velocity problems by analytical methods.

Text: Mechanism Problems – Series A – Hall & Azpell (Prentice-Hall Publishing Corporation); Kinematics of Machines – Hinkle (Prentice-Hall).

Lectures: Three hours a week, two semesters.

302: ENGINEERING MECHANICS (DYNAMICS)

Prerequisites: Mathematics 121, Mathematics 303 (concurrently).

Force, friction, determination of centroids and moments of inertia. Rectilinear, curvilinear and rotational motion of particles and rigid bodies; work, energy and power, impulse and momentum.

Text: Mechanics For Engineers – Beer & Johnson.

Lectures: Three hours a week, two semesters.

302 FLUID MECHANICS

Prerequisite: Mathematics 121.

Study of fundamentals of fluid mechanics based on an engineering approach to compressible and incompressible fluids. Fluid properties and characteristics; fluid statics; conservation of mass and energy; Euler's equation of motion and Bernoulli's equation, impulse momentum in steady flow; and introduction to the boundary layer concept.

Text: Principles of Fluid Mechanics—Kenyon (Ronald)

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

304 STRENGTH OF MATERIALS

Prerequisites: Graphic Statics 203 Mathematics, 303 (may be taken concurrently).

Analytical treatment of stress-strain relationships for tension, compression and shear; Matrix methods; torsion in shafts; axial force, shear force, and moments in beams; design of members; deflection methods; columns; and statically indeterminate problems.

Physical properties of common materials used in structures and machines including metallic, inorganic non-metallic and organic materials; testing and failure of materials under static and dynamic loads; alloying; heat treating; and testing machines and standard tests.

Text: Mechanics of Materials — Olsen (Prentice—Hall).

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

305 ELECTRIC CIRCUITS — SEE PHYSICS 336

306 ENGINEERING THERMODYNAMICS

Prerequisites: Physics 222, Mathematics 121.

The development of the general energy equation and the First Law; the Carnot Cycle and the development of the entropy concepts, steam power plants, refrigeration and gas engine applications.

Text: Thermodynamics — Van Wylen (Wiley)

Lectures: Three hours a week, one semester.

Laboratory: Three hours a week, one semester.

307: ENERGY CONVERSION

Prerequisites: Mathematics 222, Physics 222, Thermodynamics 306, Fluid Mechanics 303 (may be taken concurrently).

Theoretical heat engine cycles, modification of theoretical cycles in practice. Principles of operation of steam engine; steam nozzles and turbines; gas turbines and elementary jet propulsion. Reciprocating pumps, centrifugal pumps; water turbines; impulse and reaction turbines.

Text: To be announced.

Lectures: Three hours a week, two semesters.

308: SYSTEM DYNAMICS

Prerequisites: Physics 111, 121, Mathematics 222 (concurrently).

A unified treatment of electrical and mechanical systems. Circuit elements: single energy-port and two energy-port elements. Generalized continuity and compatibility: Kirchoff's current and voltage laws, conservation of mass, momentum and energy. Formulation of differential equations; loop and node methods. Solution of equations: classical and Laplace transform methods and basic circuit measurement. Transient and frequency analysis of linear systems. Simulation and analog solution of a variety of engineering problems.

Text: Introduction to System Dynamics - Shearer, Murphy and Richardson (Addison Wesley, 1967).

Lectures: Three hours a week, two semesters.

Supervised Problem Sessions: Three hours a week, two semesters.

ENGLISH

Full Time Faculty

Roger Crowther

Janet Baker

Lilian Falk

Thomas Edward Flynn

John Geoffrey Harrison

Irene M. Hayes

Denis P. Healy

Roger A. MacDonald

Kenneth MacKinnon

Associate Professor (Chairman)

Lecturer

Assistant Professor

Associate Professor

Associate Professor

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

David H. Parkin
Richard Perkyns
David Pigot
John Power, S.J.
Andrew T. Seaman
John K. Snyder
Christopher J. Terry
Gerance A. Whalen

Lecturer
Assistant Professor
Assistant Professor
Assistant Professor
Assistant Professor
Assistant Professor
Lecturer
Assistant Professor

English 100 must be taken by all students entering the university without a Senior Matriculation credit in English.

English 120 normally will be prerequisite to all higher English courses.

Only one course at the 200 level may be included in a student's minimum requirement for a major.

Students planning to register for higher English courses are requested to inquire at the department office for advance reading lists.

300: CRITICAL READING AND WRITING

Prerequisite: Junior Matriculation English or equivalent

A course designed to help the student read with discrimination and order his insights in expressive prose.

Text: To be announced.

Lectures: Three hours a week; two semesters.

300: INTRODUCTION TO LITERARY FORMS

Prerequisite: English 100 or equivalent.

A critical introduction to the craft of the novel, poetry, and drama. Emphasis will be placed on major works from various periods of literary study. This course is a prerequisite for all 300 level courses.

Text: To be announced

Lectures: Three hours a week; two semesters.

140: LITERATURE SEMINAR FOR MAJORS

Prerequisite: English 100 or equivalent. This course also requires that 1. the student intend to major in English and 2. that he has completed or is concurrently enrolled in English 120.

It is proposed that this course be organized in substance as a practical criticism course. The syllabus would include four novels, four plays and an anthology of poetry. The central difference between it and a stock practical criticism course lies in the intention to have all members of the department involved in the seminars. One man would be appointed to supervise the course, but the seminars would be shared. The course would meet once a week for a two hour seminar, supervised by two or three professors. As a result, students who are majoring in English would be exposed to the various points of view in the department before doing advanced work.

Text: To be announced.

Lectures: Two hours a week; two semesters.

201: THE MODERN NOUVELLE

Prerequisite: English 120.

A course designed to introduce the student to a wide range of short novels which illustrate both the rich diversity and the fundamental unity of concern which characterise the modern imaginative and cultural consciousness of the West.

To examine, within this broader cultural context, the manner in which those literary conventions, elements and emphases characteristic of the novel in general and of the nouvelle in particular lend themselves with peculiar appropriateness to the imaginative illumination of certain important areas of contemporary emotional, moral and social experience.

Text: To be announced.

Lectures: Three hours a week; two semesters.

202: THE EUROPEAN NOVEL IN TRANSLATION

Prerequisite: English 120.

A course designed to introduce the student to a wide range of European novels — French, German and Russian — which have had a decided influence upon the evolution of prose fiction and upon the formation of the cultural consciousness of the West during the nineteenth and twentieth centuries.

Text: To be announced.

Lectures: Three hours a week; two semesters.

299: CANADIAN LITERATURE

Prerequisite: English 120 or its equivalent.

Course Description: Selections of texts and emphasis will be left to the lecturer; the main value of the course would be in creating and maintaining an exploratory and experimental atmosphere.

Text: To be announced.

Lectures: Three hours a week; two semesters.

300: SHAKESPEARE

Prerequisite: English 120 or equivalent.

Course Description: Intensive study will be required of the following texts: Shakespeare's *Labour's Lost*; *The Merchant of Venice*; *Twelfth Night*; *As You Like It*; *Hamlet*; *Othello*; *Anthony and Cleopatra*; *The Winter's Tale*. Reference will be made to other Shakespearian plays, and to such literary background material of the Elizabethan period as will enrich the study of the major texts.

Text: To be announced.

Lectures: Three hours a week; two semesters.

305: THE DEVELOPMENT OF DRAMA IN THE THEATRE

Prerequisite: English 120.

Course Description: This course will trace in outline the history of drama in relation to the theatre from its inception to contemporary styles, with particular reference to the Greek and Roman classical theatre; the religious origins and secularization of English drama; the Elizabethan Playhouse; the development of the private theatre and Proscenium stage; the clash of Puritanism with the Restoration and 18th century theatre; pioneers of the new stage craft in the later 19th and 20th centuries.

Text: To be announced.

Lectures: Three hours a week; two semesters.

301: ORIGINS AND DEVELOPMENTS OF THE ENGLISH LANGUAGE

Prerequisite: English 120.

A course designed to acquaint the student with the nature of language and its growth. The student will be instructed in the basic techniques of linguistic analysis.

Text: To be announced.

Lectures: Three hours a week; two semesters.

302: MIDDLE ENGLISH : 1100 to 1400

Prerequisite: English 120.

Selections representing the major writing in English throughout the period. Special emphasis is placed on the language and style of the works.

The course is also attentive to the significance of the period as a source relating to the continuity of English Literature.

Text: To be announced.

Lectures: Three hours a week; two semesters.

303: CHAUCER AND HIS CONTEMPORARIES

Prerequisite: English 120.

The course studies the poetry of Chaucer in depth, refers to contemporaries of Chaucer such as Wm. Langland, and may extend to consideration of the 'Scottish Chaucerians'.

Text: To be announced.

Lectures: Three hours a week; two semesters.

304: TUDOR POETRY AND PROSE

Prerequisite: English 120

A study of the poetry and prose mainly of the Tudor era. Special emphasis will be given to the works of Wyatt, Surrey, Sidney and Spenser.

Text: To be announced.

Lectures: Three hours a week; two semesters.

305: SHAKESPEARE: POEMS AND PLAYS

Prerequisite: English 120.

An extensive study of Shakespeare's comedies, romances, tragedies and sonnets. This course also involves attention to the background of Elizabethan society and theatre.

Text: To be announced.

Lectures: Three hours a week; two semesters.

ENGLISH LITERATURE: ELIZABETHAN AND JACOBEAN DRAMA

Prerequisite: English 120.

Course: Includes attention to Shakespeare and concentrates mainly on the dramatic works of Marlowe, Jonson, Beaumont, Fletcher, and Massinger.

Text: To be announced.

Lectures: Three hours a week; two semesters.

ENGLISH LITERATURE: SEVENTEENTH CENTURY POETRY: 1600-1660

Prerequisite: English 120.

Course: Study of the major literature of the late English Renaissance. Authors will include Donne and the Metaphysicals, Marvell, the Cavalier poets, and Milton.

Text: To be announced.

Lectures: Three hours a week; two semesters.

ENGLISH LITERATURE: RESTORATION AND EIGHTEENTH-CENTURY POETRY AND PROSE 1666-1780

Prerequisite: English 120.

Course: Study of the central works in the Neo-Classical era. Major attention is given to Butler, Dryden, Swift, Pope, and Johnson.

Text: To be announced.

Lectures: Three hours a week; two semesters.

ENGLISH LITERATURE: THE NOVEL: DEFOE TO AUSTEN

Prerequisite: English 120.

Course: The origin and development of the English novel. Special emphasis is placed on the works of Defoe, Richardson, and Fielding. The study may also include representative works of Sterne, Smollett, Goldsmith, Mary Shelley, Godwin, several Gothic novelists, and Jane Austen.

Text: To be announced.

Lectures: Three hours a week; two semesters.

310: THE NINETEENTH CENTURY NOVEL

Prerequisite: English 120.

Authors may include Jane Austen, Dickens, Thacheray, The Brontës, George Eliot, Hardy, Meredith, James.

Text: To be announced.

Lectures: Three hours a week; two semesters.

311: ROMANTIC POETRY

Prerequisite: English 120.

A study of the origins and development of the English Romantic movement. Major emphasis will be placed on the works of Blake, Wordsworth, Coleridge, Shelley, Keats and Byron.

Text: To be announced.

Lectures: Three hours a week; two semesters.

312: VICTORIAN POETRY AND PROSE

Prerequisite: English 120.

The course is designed to acquaint student with the attitudes and ideas of the writer in the Victorian period. Arnold, Browning, and Tennyson are studied in depth.

Text: To be announced.

Lectures: Three hours a week; two semesters.

313: NINETEENTH-CENTURY NORTH AMERICAN LITERATURE

Prerequisite: English 120.

Major writers of the 19th century. Critical reading of works by Cooper, Hawthorne, Melville, Emerson, Thoreau, Whitman, Emily Dickinson, James.

Text: To be announced.

Lectures: Three hours a week; two semesters.

314: TWENTIETH-CENTURY NORTH AMERICAN LITERATURE

Prerequisite: English 120.

Representative figures in the modernist tradition. A consideration of the work and place of such writers as Dreiser, Hemingway, Faulkner.

~~Wald~~, Mailer, Pynchon; in poetry that of T.S. Eliot, Robert Frost, ~~and Crane~~, and others.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week; two semesters.

335: MODERN ENGLISH POETRY

~~Prerequisite:~~ English 120.

A study of the major poets of the modern era. Authors will include ~~Hardy~~, Hopkins, Eliot, Pound, Yeats, and Auden. The course will also ~~include~~ reference to English poetry of the fifties and sixties.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week; two semesters.

336: TWENTIETH CENTURY DRAMA

~~Prerequisite:~~ English 120.

A study of the major dramatists from the late 19th century to ~~contemporary~~ movements. Dramatists studied include Ibsen, Chekhov, ~~Strindberg~~, Shaw, Synge, O'Casey, O'Neill, Pirandello, Brecht, Wilder, ~~Williams~~, Miller, Beckett, Ionesco, Pinter, Osborne, and Albee.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week; two semesters.

337: LITERATURE, THOUGHT, AND ART – 1880-1930

~~Prerequisite:~~ English 120.

This is not a course in the history of ideas. It is an exploration of the ~~relationship~~ between the cultural background of the period and its ~~effect~~ on imaginative works.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week; two semesters.

338: THE MODERN NOVEL

~~Prerequisite:~~ English 120.

~~Authors~~ may include James, Conrad, Lawrence, Joyce, Forster, Virginia ~~Woolf~~.

~~Text:~~ To be announced.

~~Lectures:~~ Three hours a week; two semesters.

319: THEORY AND PRACTICE OF CRITICISM

Prerequisite: English 120.

A study of basic dispositions and their graces and defects in actual confrontation with given imaginative works.

Text: To be announced.

Lectures: Three hours a week: two semesters.

320: SPECIAL AUTHOR

Prerequisite: English 120 and at least two 300 level courses.

A tutorial course open to students who prove themselves worthy of studying a given author in depth.

Text: To be announced.

Tutorials: By arrangement with supervisor.

321: SPECIAL SUBJECT

Prerequisite: English 120 and at least two 300 level courses.

A tutorial course open to student who prove themselves worthy of studying a special theme or movement in depth.

Text: To be announced.

Tutorials: By arrangement with supervisor.

FINE ARTS

D. Fogarty, S.J.

Prof

121: SCULPTURE

Experience with the models, methods, and materials of three dimensional art form with emphasis upon the application of such experience to the more abstract values of the humanities.

This course may be taken for credit in any program towards the degree of Bachelor of Arts.

Lectures: Three hours a week.

FRENCH

Guy LePierres
F. J. Devine, S.J.
Gilles Cossette

Assistant Professor, Chairman
Associate Professor

Harrington
Mackriss
Murphy

Instructor
Assistant Professor
Assistant Professor

Courses beyond the 102 level are taught in French.

FRENCH 102: ORAL AND WRITTEN FRENCH

Prerequisite: Junior Matriculation French.

A ~~multi~~-lingual course based on modern principles of linguistics whose ~~main~~ objective is the development of the ability to speak French. It is supplemented by a Workbook for written composition and by oral practice in the language laboratory.

Text: Perspectives de France – Bieler, Haac, Léon, Lessons 1-15.
Practice Hall) Workbook for Perspectives de France.

Lectures: Three hours a week, two semesters.

Language Laboratory: Three half hours a week, two semesters.

FRENCH 120: INTERMEDIATE ORAL AND WRITTEN FRENCH

Prerequisite: Senior Matriculation French or French 102.

A continuation of the method adopted in French 102 to develop proficiency in the use of the spoken language. The course also includes the writing of free compositions in French on topics of current interest.

Text: Perspectives de France – Bieler, Haac, Léon, Lessons 16-32.
Practice Hall) Workbook for Perspectives de France.

Lectures: Three hours a week, two semesters.

Language Laboratory: Three half hours a week, two semesters.

FRENCH 200: INTRODUCTION TO FRENCH LITERATURE

Prerequisite: French 120.

A study of the main trends in French Literature through the works of representative writers. Literary analysis of selected texts in prose and verse. This course is OBLIGATORY for all students whose major concentration is French.

Text: Lectures classiques et Modernes. Hall et Michaud (Odyssey)
Barat's French – English Dictionary.

Lectures: Three hours a week, two semesters.

FRENCH 201: ADVANCED CONVERSATION AND CULTURAL STUDIES

This is a thoroughly practical course intended to further develop the student's ability to speak French. The cinema and various forms of French cultural life will be discussed in class. Oral practice in the Language Laboratory. Course restricted to 20 students.

Text: *L'Art de la Conversation* – Lenard and Hester (Harper and Row)

Lectures: Three hours a week, two semesters.

FRENCH 300: XVI CENTURY FRENCH LITERATURE

Texts: *XVIe Siècle* – Lagarde et Michard (Bordas); *Cinna* – Corneille; *Iphigénie* – Racine; *Les Précieuses Ridicules* – Molière.

Lectures: Three hours a week, two semesters.

FRENCH 301: XVII CENTURY FRENCH LITERATURE

Texts: *XVIIe Siècle* – Lagarde et Michard (Bordas); *Cinna* – Corneille; *Iphigénie* – Racine; *Les Précieuses Ridicules* – Molière.

Lectures: Three hours a week, two semesters.

FRENCH 302: XVIII CENTURY LITERATURE

Texts: *XVIIIe Siècle* – Lagarde et Michard (Bordas); *Candide* – Voltaire; *Discours sur l'origine et les fondements de l'inégalité parmi les hommes* – Rousseau; *Le Mariage de Figaro* – Beaumarchais.

Lectures: Three hours a week, two semesters.

FRENCH 307: XIX CENTURY ROMANTICISM

Texts: *XIXe Siècle* – Lagarde et Michard (Bordas); *Atala* – Chateaubriand; *Ruy Blas* – Hugo; *Poésies Choisies* – Musset.

Lectures: Three hours a week, two semesters.

FRENCH 308: XIX CENTURY REALISM

Texts: *Le Rouge et le Noir*, *La Chartreuse de Parme* – Stendhal; *Madame Bovary*, *L'Education Sentimentale* – Flaubert.

Lectures: Three hours a week, two semesters.

FRENCH 309: XX CENTURY LITERATURE FROM 1900 to 1950

Texts: *XX Siècle* – Lagarde et Michard (Bordas); *L'Otage* – Claudel; *Les Grand Meaulnes* – Alain-Fournier; *Vol de Nuit* – Saint-Exupéry.

Texts: Desqueyroux – Mauriac; Antigone – Anouilh; La Peste – Camus.

Lectures: Three hours a week, two semesters.

FRENCH 310: CONTEMPORARY FRENCH LITERATURE.

Text: Anthologie vivante de la littérature d'aujourd'hui – Pierre de Buffre. (Librairie Académique Perrin).

Lectures: Three hours a week, two semesters.

FRENCH 312: FRENCH CANADIAN LITERATURE

Course description: A general survey of French Canadian Literature with special emphasis on the novel from 1930 to the present day.

Text: Histoire de la Littérature française du Québec – Pierre de Grandpré (Beauchemin).

Lectures: Three hours a week, two semesters.

FRENCH 313: FRENCH CIVILIZATION

Course description: A study of France and of the French people, history, political institutions, social, economic and cultural life.

Text: Guide France (Hachette); France de Nos Jours – Carlut et Bree (Macmillan).

Lectures: Three hours a week, two semesters.

FRENCH 314: EVOLUTION OF THE FRENCH NOVEL

Course description: An examination of the principal stages in the development of the French Novel.

Texts: La Princesse de Clèves – La Fayette; Manon Lescaut - l'abbé Prévost; La Nouvelle Héloïse, extraits – Rousseau; Eugénie Grandet – Balzac; Le Rouge et le Noir – Stendhal; Madame Bovary – Flaubert; L'Assommoir – Zola; Du côté de chez Swann – Proust; La Condition Humaine – Malraux; L'Étranger – Camus; La Modification – Michel Butor.

Summer reading is strongly advised.

Lectures: Three hours a week, two semesters.

FRENCH 315: THE FRENCH THEATRE

Course description: A study of some of the major works of French dramatic literature.

Texts: *Le Cid* – Corneille; *Le Bourgeois Gentilhomme* – Molière; *Andromaque* – Racine; *Le jeu de l'amour et du hasard* – Marivaux; *Le Barbier de Séville* – Beaumarchais; *Lorenzaccio* – Musset; *Le Corbeau* – Becque; *Siegfried* – Giraudoux; *La Reine Morte* – Montherlant; *Les Mains Sales* – Sartre.

Lectures: Three hours a week, two semesters.

FRENCH 316: POETRY IN FRANCE

A study of the evolution of French poetry from the Renaissance to the present day with special emphasis on its relation to the visual arts.

Text: *Le Livre d'Or de la Poésie française* – Pierre Seghers. (Marabout)

Lectures: Three hours a week, two semesters.

GEOLOGY

D. Hope-Simpson
Q.A. Siddiqui

Associate Professor
Assistant Professor

111: INTRODUCTION TO GEOLOGY

The Earth as a plane; minerals and rocks; surface and deep-sea processes. Structural evolution of North America with special reference to the Maritime area. Historical Geology. Economic Geology.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

Field work as specified.

201: CRYSTALLOGRAPHY AND MINERALOGY

Morphological classification and atomic structure of crystals; chemical mineralogy and determinative mineralogy.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

202: PALEONTOLOGY

Fossils, their nature and mode of preservation. The morphological classification and stratigraphic ranges of the main groups of invertebrate fossils. Elementary vertebrate paleontology.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

301: OPTICAL MINERALOGY AND PETROLOGY

Prerequisite: Geology 111.

Prerequisite or concurrent: Physics 111, Chemistry 121; Geology 201.

The optical properties of minerals. The description and interpretation of igneous, sedimentary and metamorphic rocks.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

302: STRATIGRAPHY AND HISTORICAL GEOLOGY

Prerequisites: Geology 111. Geology 202 strongly recommended.

Principles of stratigraphy. Historical Geology and Tectonic Evolution of North America. Principles of Stratigraphic Paleontology; Paleoecology; Fossils; Faunal and Floral Assemblages.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

303: STRUCTURAL AND FIELD GEOLOGY

Prerequisite: Geology 111

Primary and secondary structures of rocks. Field mapping. Map interpretation. The graphical analysis of structural field observations. Tectonics.

Students are strongly recommended to attend the Maritime Universities Geological Field School early in May preceding or following this course.

401: ECONOMIC GEOLOGY

Prerequisite: Geology 301

Prerequisite or concurrent: Geology 303

The Occurrence and Classification of Ore-Deposits. Theories of Origin. Field and laboratory investigations. Surface and Underground Mapping Problems.

Text: To be announced. Reference to Journals.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

404: MICROPALAEONTOLOGY

Consent of the Department required.

Principles of Micropaleontology: major groups of micro-fossils and their use in the petroleum industry. Paleocology and correlation. Techniques of collection, preparation and identification.

Text: To be announced.

Lectures: Two hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

Field work as required.

GERMAN

Roman Nahrebecky

Assistant Professor

100:

An introductory language course for those beginning the study of German. Basic linguistic structures will be studied with particular emphasis on the oral aspect.

Text: To be announced.

200:

Prerequisite: German 100

This course presents an intensified study of grammar and syntax and the reading of German texts.

Text: A Practical German Review Grammar— Emory E. Cochran.

250: GERMAN LITERARY PROSE

The aim of this course is to familiarize the student with the artistic qualities of German literary prose. Summaries, compositions and short essays will be written.

Text: To be announced.

MODERN GERMAN LITERATURE

A study of trends in modern German literature (Naturalism, Impressionism, Expressionism).

THE ROMANTIC AGE

Prerequisite: German 250 or equivalent.

The purpose of this course is to provide the student with an understanding of the characteristic traits of German poetry and prose in the Romantic Age.

Shakespeare, tales and historic tales by L. Tieck, Novalis, H. von Kleist, C. Schlegel, A. von Arnim, A. von Chamisso, E.T.A. Hoffmann, L. Schiller, J. von Eichendorff and H. Heine will be read and discussed.

Two hours per week; two semesters.

HISTORY

Elizabeth Chard	Assistant Professor, Chairman
Wladislaw Bobr-Tylingo	Associate Professor
Robert Bollini	Assistant Professor
Elizabeth Haigh	Lecturer
Wayne Hammond	Lecturer
Richard Kieseckamp	Lecturer
John MacCormack	Associate Professor
Wallace Mills	Lecturer
Wary Sun	Assistant Professor
George F.W. Young	Assistant Professor

DEPARTMENTAL POLICY

- (1) To obtain a major concentration in History a student is required to have FIVE university credits in History beyond the 120 level. A History credit from high school or a credit for courses 111-114 will satisfy the Bachelor of Arts requirement of a compulsory History credit but will NOT count towards the History concentration. A History major therefore will have six university History credits in his/her B.A. degree programme.
- (2) At least 50% of a student's elective work must be done at the 300 level or above. Suggested supporting courses for History majors include: Political Science, Economics, Psychology, Anthropology, and Sociology.
- (3) The Honours Programme in History follows the regulations as stated in this calendar.

- (4) All students majoring in History must have two university credits in one foreign language. In the case of students majoring in Canadian History, French is specified as the language required.
- (5) The programme for a major in History must be approved by the Chairman of the Department.

COURSE DESCRIPTIONS (GENERAL)

- (a) All History courses are full credits and are year-length courses. (For the 1970-71 academic year, the only exception to this will be History 300.)
- (b) History 111, 112, 113, and 114 are survey courses which fulfill the University requirement of one History credit for the B.A. degree. A course in this grouping does NOT count as one of the five required for a major in History. These courses normally combine lectures with small tutorial group meetings. Three hours per week is the time allotment.
- (c) History courses on the 200 and 300 level are frequently structured to consist of both lectures and seminars. The prerequisite for courses on these two levels will be at least one University credit in History. Two hundred level courses normally meet for 3 hours per week; three hundred level courses for 2 hours per week.
- (d) History courses on the 400 level are seminar courses designed for advanced work by History majors and honours students in their junior and senior years. These classes meet 2 hours per week.

COURSE OFFERINGS FOR THE 1970-1971 ACADEMIC TERM

History 111	History 211	History 320	History 332
History 112	History 212	History 321	History 333
History 113	History 303	History 323	History 334
History 114	History 311	History 326	History 408
History 203	History 315	History 328	History 410
History 209	History 317	History 329	History 411
History 210	History 319	History 331	

110:

Students eligible for advanced standing in History from senior matriculation will be given credit for this course.

20: CIVILIZATION IN THE WEST

A course designed to explore the origins and development of the characteristic political, legal, and cultural institutions of western civilizations and their impact on other cultures.

21: HISTORY OF CANADA (FORMERLY HISTORY 202)

A survey course from the earliest times to the present with emphasis on the French regime, the rivalry with Great Britain for control of the continent, British colonial rule, Confederation, and the development of Dominion status.

22: SURVEY OF THE HISTORY OF THE UNITED STATES (FORMERLY HISTORY 207)

A survey of U.S. history from its colonial beginnings to the present. Attention will be given to the central themes of U.S. history from the Revolution to World War II.

23: A HISTORY OF BRITAIN - 1066 TO THE PRESENT

The course will involve a survey of British History from the Norman conquest to the advent of the Wilson Government. Major emphasis will be placed upon economic, religious, and political developments although attention will also be given to social and cultural issues. The histories of Scotland, Ireland, and Wales will be considered only insofar as they are reflected in the history of Britain as a whole. The course will stress themes rather than narrative history.

24: THE TWENTIETH CENTURY

A historical approach to the major problems of our time. Emphasis will be placed upon the backgrounds to World Wars I and II; the emergence of the United States as a world power; the Communist Revolution and its impact; and the problems of an industrial society.

24: EUROPE: 1815-1945

An introduction to nineteenth and twentieth century Europe with particular emphasis on the diplomatic background of the First and Second World Wars.

25: HELLENISTIC HISTORY (CROSS-LISTED, CLASSICS 205)

Prerequisite: one course in Classics or History. Other students may be admitted at the discretion of the instructor.

This course considers the characteristics of the Hellenistic world from Alexander the Great until the arrival of Pompey in the east (334 B.C. to

63 B.C.). This is the period of the expansion of Greek culture over the eastern world (Hellenism), giving rise to a highly complex historical era, one containing many of the problems and features of 20th century life.

209: MODERN EAST ASIA

China and Japan in the 19th and 20th centuries as they confront the modern West with special emphasis on the contrast between Chinese response and that of Japan.

210: MODERN LATIN AMERICA

A survey of the emergence and historical development of the Latin American Nations since their independence from Spain and Portugal in the early 19th century. The course will focus especially on the political, economic and social evolution of the more populous nations.

211: THE HISTORY OF SCIENCE

An introductory survey of major developments in the field from the earliest times. Special emphasis will be placed on the impact of science on society.

212: THE HISTORY OF RUSSIA, 882 TO THE PRESENT

An introductory survey with special emphasis on 19th and 20th century developments.

213: MEDIEVAL AND MODERN JEWISH HISTORY (CROSS-LISTED, RELIGIOUS STUDIES 322)

A survey of the History of the Jewish people with emphasis on the social, religious, and cultural aspects of Jewry and its contribution to world civilization.

222: HISTORY CREDIT FROM PROJECT PARALLEL

223: HISTORY OF GREECE (CROSS-LISTED, CLASSICS 203)

A concentrated study of selected topics dealing with the main features of Greek History, stressing both the greatness and weakness of ancient Greek society.

This course is designed as a companion and parallel to History 222 dealing in the same manner with the history of Rome.

224: HISTORY OF ROME (CROSS-LISTED, CLASSICS 204)

A concentrated study of selected topics dealing with the main features of Roman history, stressing both the greatness and the weakness of the Roman world.

This course is designed as a companion and parallel to History 223, which deals in the same manner with the history of Greece.

300: PRE-CLASSICAL ANCIENT HISTORY (CROSS-LISTED, ANTHROPOLOGY 399)

A study of the earliest civilizations in the Old and in the New World: The Mediterranean East — China — Mesoamerica and Peru. For the 1970-71 academic session this course will consist each week of three 75 minute sessions, one semester. This will constitute a full credit.

302: HISTORY OF CANADA, 1867 TO THE PRESENT

Confederation, the development of Dominion status, Canada's role in the two World Wars and international affairs will be some of the major topics considered.

303: TUDOR AND STUART ENGLAND

The history of England with special emphasis on the development of the English parliament.

304: HISTORY OF THE UNITED STATES TO 1865.

A course from colonial times to the end of the Civil War with special emphasis on the growth of democracy and the conflicting ideologies which culminated in civil war.

305: HISTORY OF THE UNITED STATES, 1865 TO THE PRESENT

A course with emphasis on the political aspect of the evolution of the United States, especially during the Reconstruction Era; the Progressive Era, the New Freedom and the New Deal. Attention will also be paid to the emergence of the United States as a world power.

306: MONARCHY, REVOLUTION AND EMPIRE

The attempts of European societies to create a valid policy after the shocks of the Renaissance and Reformation. The course examines the political, economic, social and intellectual history of Europe from the end of the Thirty Years' War to Waterloo (1648-1815).

309: THE PRE-REFORMATION CHURCH (CROSS-LISTED IN RELIGIOUS STUDIES 309)

A detailed study of the various problems, political, intellectual and religious, which had their origin during the period of early medieval Christendom, reached their climax towards the late middle ages, and resulted in the Reformation.

311: MEDIEVAL ENGLAND

Emphasis will be placed on constitutional development and church-state relations.

312: MEDIEVAL EUROPE

The main currents of medieval European history with special emphasis on the intellectual and cultural aspects.

313: EUROPE, 1815-1870

In this course particular emphasis will be placed on the history of France, on the revolutions of 1848-1849, and on the unification of Germany and Italy.

314: EUROPE, 1870-1945

Emphasis will be placed upon the backgrounds of World Wars I and II and the problems of modern industrial society.

315: MODERN BRITAIN

The course examines the relationship between social change and political structure in a major power of nineteenth century Europe with particular reference to the emergence of new values in a society at once insular and European.

316: FOUNDATIONS OF AMERICAN HISTORY: Colonial Period to 1789

A course which is concerned with the foundations of the American nation. Attention will be given to colonization, the growth of the Thirteen Colonies, their relationship with Great Britain culminating in the Revolution and the Establishment of the United States of America.

317: AMERICA IN THE NINETEENTH CENTURY

A course which discusses the growth of the United States from an agrarian-importing nation to an industrial exporting nation. Emphasis will be on the internal problems of developing the country, expanding into the West, waging a Civil War, and the triumph of the industrial revolution.

22: AMERICA IN THE TWENTIETH CENTURY

A course concerned with the rise of financial capitalism and the United States as a world power.

23: CANADIAN-AMERICAN RELATIONS

The course will examine the basic developments in Canadian-American relations. Emphasis will be on the events of the geographical region of New England and the Maritime Provinces. Political as well as social, economic, and religious trends will be analyzed. Some opportunity will be afforded students to use the vast quantity of primary source material in the Public Archives of Nova Scotia.

24: BRITISH EMPIRE-COMMONWEALTH

A study of trends in 18th and 19th century Britain with special emphasis on the practice and theory of imperialism.

25: AFRICA IN THE 19th AND 20th CENTURIES

A look at some African societies and their values, with some explanation of the phenomena of European intrusions, conquests and colonialism and their impact on African societies.

26: SOUTH AFRICA

A study of the complex inter-relationships and conflicts arising from different cultures, religions and skin colours from the 17th century to the "apartheid" state of the mid-twentieth century.

27: THE HISTORY OF CHINA, 618-1911

A study of society, government and intellectual development in China during the T'ang, Sung, Ming and Ch'ing dynasties, with special attention to factors affecting the rise and decline of dynasties.

28: THE HISTORY OF JAPAN, 710-1868

A study of the evolution of Japanese society and culture from the Nara period to the Tokugawa shogunate in the 19th century. Special emphasis will be placed on the transition from the period of imitation of the Chinese model to the emergence of a characteristically Japanese culture.

29: THE IBERIAN EMPIRES IN THE NEW WORLD, 1492-1810

The History of colonial Latin America with special emphasis on the Iberian maritime expansion, conquest, and colonization of the New

World; the survival and continuing influence of the American people in the Colonial World; the impact of the African negro on Colonial society; and the administration, economy and final collapse of the Empire.

326: THE IBERIAN PENINSULA FROM ROMAN TIMES TO THE PRESENT

A study of the History of Spain and Portugal from their Roman foundations to the present, with special emphasis on the period since the reigns of Ferdinand and Isabella.

327: A HISTORY OF NEW FRANCE TO 1791

This course will involve a study of the cultural, social, political, and economic development of the French regime in America. In addition, it will attempt to deal with the immediate consequences of the Conquest insofar as they were reflected in this development.

328: A HISTORY OF BRITISH NORTH AMERICA, 1763-1867

This course will examine the major political, social, economic, religious, and intellectual trends evident in British North America in the period following the Treaty of Paris, 1763. Special attention will be given to the historiography of this period.

329: HISTORY OF CANADA, 1849-1920

This course deals with the problems arising from the attempt to build a British North American nation in the age of Macdonald and Laurier.

330: STUDIES IN EIGHTEENTH CENTURY THOUGHT (CROSS-LISTED RELIGIOUS STUDIES 330)

A study of the major ideas of selected eighteenth century thinkers and of their influence on the religious and cultural life of the modern West. This course centers on the reading, discussion, and interpretation of eighteenth century classics; special emphasis will be given to the creation of the liberal democratic ideal in religion and politics and to the establishment of critical methodology in the eighteenth century and their consequent impact on the nineteenth and twentieth centuries.

331: MODERN FRANCE, 1815-1940

The struggle of Frenchmen to reconcile the ambiguities of their revolutionary past with the exigencies of nationalism and state security is the theme of this course. Students will find a modest reading knowledge of French useful, if not essential.

42: THE SCIENTIFIC REVOLUTION

The aim of the course is the study of the intellectual revolt which we know as the Scientific Revolution of Western Europe. The point is to examine man's reinterpretation of the natural universe in the context of the philosophical cultural and social milieu of the 16th, 17th, and 18th centuries.

43: A HISTORY OF CANADA IN THE 20TH CENTURY

A course designed to examine the emergence of Canada's social, political, and economic structure in the 20th century. Some attention will also be given to Canada's role as an emerging world power, her relationship with the United States, and her role within the British Empire and Commonwealth.

44: THE PURITAN REVOLUTION AND THE CROMWELLIAN INTERREGNUM

A pre-seminar with particular emphasis on political and economic changes during the Puritan Revolution.

45: THE ERA OF THE FRENCH REVOLUTION

The background, course and impact of the French Revolution.

46: GERMAN FOREIGN POLICY, 1890-1945

The history of Germany with special emphasis on German foreign policy.

47: BRITISH FOREIGN POLICY, 1890-1945

Particular emphasis will be placed on Anglo-American relations, the Anglo-French Entente before 1914, and Anglo-German relations 1914-1945. Students will be expected to do considerable research in the diplomatic documents of the period.

48: UNITED STATES FOREIGN POLICY 1890-1945

Emphasis will be placed on the emergence of the United States as a world power prior to World War I; the retreat into isolation after 1918 and American-Japanese relations to 1941.

49: THE POLITICS OF THE PEACE SETTLEMENT 1919-1921

A seminar in which students will be expected to work closely in the documentary sources.

408: CHURCH AND STATE THROUGH THE AGES (CROSS-LISTED IN 3 OTHER DEPTS.)

An inter-departmental seminar made possible by the cooperation of the following departments: History, Philosophy, Political Science, and Religious Studies.

409: THE ERA OF THE AMERICAN CIVIL WAR

A course concerned with the causes and impact of the American Civil War.

410: A PERIOD IN THE HISTORY OF NOVA SCOTIA

A course designed for Honours History students who will be afforded an opportunity to use the original material as found in the Public Archives of Nova Scotia. The course will be conducted as a seminar with presentation of papers on given topics as well as discussion of these papers and related topics.

411: MODERN EAST ASIA, SELECTED PROBLEMS

Theme: The influence of the West on the modernization efforts of China and Japan during the 19th and 20th Centuries.

412: SPECIAL TOPICS IN PRE-CONFEDERATION CANADIAN HISTORY

This course will enable students to explore certain historiographical problems in Canadian History and to use primary source material more extensively than is possible in lecture courses.

413: SELECTED PROBLEMS IN POST-CONFEDERATION CANADIAN HISTORY

The course is designed to introduce the student in a detailed way to some of the major problems of the Canadian national experience. Particular emphasis will be placed on one or more of the following: the political, economic, social, intellectual and/or religious dimensions of this experience. Students will be introduced to some of the primary documents of the period.

414: PRO-SEMINAR IN LATIN AMERICAN HISTORY

A reading seminar involving an in-depth study and an historiographical research and interpretive paper on a selected period and/or problem in the history of Latin America. The aim of this course is to give students interested in the area a working knowledge of the historiography and

...tion into the problems of original research of the said
and/or problem under consideration. While not absolutely
required, a reading knowledge of Spanish or Portuguese is strongly
recommended.

LATIN (See Classics)

MATHEMATICS

A. Singh,	Assistant Professor, Chairman
R.D. Cochrane	Assistant Professor
P. Ever	Lecturer
B. Kabe	Associate Professor
A. Puller	Lecturer
P. Schbey	Lecturer
V.P. Singh	Assistant Professor
G. White	Lecturer

110A: ALGEBRA AND TRIGONOMETRY I.

Prerequisite: Grade XI Mathematics

Introduction to Algebra and Trigonometry.

**Topics and Operations; Real Numbers; Functions; Relations; Graphs of
Elementary Functions; Elementary Trigonometry; Exponential
Equation; Linear and Quadratic Inequalities.**

Text: To be announced

Lectures: Three hours a week, one semester

Tutorials one hour a week, one semester - half course.

110B: ALGEBRA AND TRIGONOMETRY II

Prerequisite: Mathematics 110A

Topics: Polynomials; Solution of Triangles; More Advanced Trigonometry;
Binomials; Remainder Theorem; Matrices and Determinants;
Sequences; Mathematical Induction; Probability.

Lectures: Three hours a week; one semester.

Tutorials one hour week; one semester - half course.

112: NEW COURSE: MATHEMATICS FOR LIBERAL ARTS STUDENTS

Prerequisite: Grade XI Mathematics.

A course intended to illustrate various aspects of modern mathematics. The material may differ from year to year. Problems and written assignments will form an integral part of the course. This course does not contain any formal material prerequisite for more advanced courses.

113: MATHEMATICS FOR COMMERCE STUDENTS.

Prerequisite: Grade XI Mathematics.

Sets and subsets, real numbers, first degree equations, relations and functions, graphs, exponential, logarithms, inequalities, linear programming, permutations, combinations, probability, measurement systems of linear algebraic equations, matrices and solution of linear systems.

Text: To be announced

Lectures: Three hours a week; two semesters
Tutorials, one hour a week; two semesters.

120A: DIFFERENTIAL CALCULUS

Prerequisite: Grade XII Mathematics or Mathematics 110B.

Analytical geometry, inequalities, absolute values, functions and their graphs, limits and continuity, derivative, implicit differentiation, application of derivatives to geometrical problems, mechanics and maxima, minima, second derivatives, curvatures, Rolle's Theorem, mean value theorem, differential and approximations.

Text: To be announced

Lectures: Three hours a week for one semester half course.
Tutorials one hour for one semester

120 B: INTEGRAL CALCULUS

Prerequisite: Mathematics 120A.

Antiderivative, the definite integral, fundamental theorem of integral calculus, applications of definite integral, techniques of integration, parametric and polar coordinates, Simpson's rule and approximations. Algebra and complex numbers.

Text: To be announced

Lectures: Three hours a week; one semester
Tutorial one hour a week, one semester half course.

212: APPLIED STATISTICS

Prerequisite: Mathematics 120B.

Elements of set theory, probability, conditional probability, Bayes' rule, binomial, hypergeometric, poisson, multinomial, normal, exponential, gamma, beta, and normal distributions. Mathematical expectation, moments, moment generating functions. Chebyshev's theorem. Sums of random variables. Sampling distributions, chi-square, F and T distribution. Point and interval estimation. Tests of hypotheses. Linear regression and correlation. Bivariate normal distribution. The method of least squares.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

222: CALCULUS II

Prerequisite: Mathematics 120B

Two and plane. Vectors, matrices and determinants. Vector algebra. Infinite sequences and series. Convergence. Taylor's series. Partial differentiation. Ordinary differential equations. Arc lengths. Multiple integrals. Applications to simple numerical analysis.

Text: To be announced.

Lectures: Two hours a week; two semesters.

Tutorial: Two hours a week; two semesters.

225: INTRODUCTORY NUMERICAL ANALYSIS

Prerequisite: Mathematics 120A-120B concurrently.

Principles of digital computing. Truncation and roundoff error. Finite differences. Iterative techniques. Interpolation. Algebraic equations. Numerical differentiation and integration. Quadratures. Differential equations. Error analysis.

Competency in a programming language must be demonstrated.

Text: To be announced.

Lectures: Three hours a week plus laboratory periods; two semesters.

250: ANALYSIS I

Prerequisite: Mathematics 111, with 120A-120B concurrently.

Set Theory. Countability Sequences.

Analysis on the real line. Convergence. Continuity. Uniform Continuity. Applications to Calculus. Elementary Theory of Metric Spaces. Application to Differential and Integral Equations.

305: THEORY OF A COMPLEX VARIABLE

Prerequisite: Mathematics 222.

The complex plane. Elementary transformations and mappings. Analytic functions. Branch points and cuts. Infinite series and uniform convergence. Conformal mapping. Complex integration. Cauchy's theorem. Residues. Liouville's theorem and the fundamental theorem of algebra.

Text: To be announced.

Lectures: Three hours a week, two semesters.

312: LINEAR ALGEBRA

Prerequisite: Mathematics 222 concurrently.

Abstract systems. Fundamental properties of vector spaces. Linear transformations and matrices. Linear equations and determinants. The Hamilton-Cayley theorem. Canonical forms. Metric concepts. Functions of matrices.

Text: To be announced.

Lectures: Three hours a week; two semesters.

Tutorial: One hour a week; two semesters.

313: MODERN ALGEBRA

Prerequisite: Mathematics 222

A study of formal algebraic systems and integral domains, groups, rings, fields and vector spaces and the deduction of their more important properties.

Text: To be announced

Lectures: Lectures three hours a week, two semesters.

314: STATISTICS II

Prerequisite: Mathematics 212 with Mathematics 222 concurrently

Non-parametric methods; simple tests and estimation of hypothesis

Elements of sampling theory. Analysis of variance and related design of experiments.

To be announced.

Three hours a week; two semesters.

Lecture: Three hours a week; two semesters.

INTRODUCTORY OPERATIONS RESEARCH

Prerequisite: Mathematics 222 and Mathematics 312.

Linear programming, Dynamic Programming, quadratic and geometric programming, optimization techniques.

To be announced

Three hours a week; two semesters.

ORDINARY DIFFERENTIAL EQUATIONS

Prerequisite: Calculus 222.

Classical techniques of solving first and second order equations. Systems of equations. Series solutions. Transform methods. Non-linear equations. Isoclines, and phase plane analysis. Various applications will be discussed in detail.

Text: To be announced.

Lectures: Three hours a week; two semesters.

CALCULUS III

Prerequisite: Mathematics 222.

Uniform convergence. Series and limits. Fourier series. Vector algebra and matrices. Ordinary and partial differential equations. Laplace transform. Multivariable calculus. Jacobians.

Text: To be announced.

Lectures: Three hours a week; two semesters.

Theoretical: Two hours a week; two semesters.

ANALYSIS II

Prerequisites: Mathematics 250 and 222 with 312 concurrently.

Elementary Topology. Metric Spaces. The Stone-Weierstrass Theorem. The Baire Category Theorem and applications. Equicontinuity and the

Ascoli-Arzela Theorem. Named linear spaces. The Hahn-Banach Theorem. Introduction to Hilbert Space. Stieltjes integral. Lebesgue integration. Fourier Series.

Text: To be announced.

Lectures: Three hours a week, two semesters.

405: COMPLEX ANALYSIS

Prerequisite: Mathematics 305

Analytic functions, residues, Laurent's series, Analytic continuation. Conformal mapping, Riemann surfaces, Integral transforms, special functions, Asymptotic expansions and applications.

Text: To be announced.

Lectures: Three hours a week, two semesters.

415: THEORY OF STATISTICS

Prerequisites: Mathematics 222.

Fundamental concepts and theorems of probability; Distribution functions as probability models of the discrete and continuous cases. Moment generating functions; sampling distributions; Point and interval estimation; Statistical inference and hypotheses testing; Correlation and regression analysis.

Text: To be announced.

Lectures: Three hours a week, one semester – half course.

416: STOCHASTIC PROCESSES

Prerequisites: Mathematics 222 and 312

Probability models for physical situations; Branching processes; Random walk; Markov chains; The Poisson Processes; The pure birth and death process; Waiting line and serving problems.

Text: To be announced.

Lectures: Three hours a week, one semester – half course.

417: INTRODUCTION TO STATISTICAL DECISION THEORY

Prerequisites: Mathematics 222, and 312. (Mathematics 213 is desirable but not essential).

Statistical decision problems; Bayes decision rule; Linear programming and its applications to statistical decision problems; Minimax

Partial rule; Conventional statistical theory and decision theory.

Text: To be announced.

Lectures: Three hours a week, two semesters—full course.

456: ANALYSIS III

Prerequisites: Mathematics 350, concurrently or permission of the instructor.

Measure Theory, Lebesgue integration, dominated convergence, Egoroff's theorem, Hilbert spaces.

Text: To be announced.

Lectures: Three hours a week; two semesters.

457: PARTIAL DIFFERENTIAL EQUATIONS

Prerequisites: Mathematics 325.

Solution of standard second order equations. Method of characteristics. Green's functions. Separation of variables, Poisson's integral. Integral transforms with emphasis on Laplace methods. Special functions.

Text: To be announced.

Lectures: Three hours a week; two semesters.

458: INTRODUCTION TO APPLIED MATHS

Prerequisites: Mathematics 305 and 325

The course will deal with topics such as those given below:

Linear analysis and group theory, vector and tensor analysis, Interpolation, curve fitting and numerical analysis, conservation principles. General discussion of ordinary and partial differential equations arising in physical problems leading to different types of boundary value problems.

Text: To be announced.

Lectures: Three hours a week; two semesters

457: FLUID MECHANICS I

Prerequisites: Mathematics 305, with 452 concurrently

Elementary theory of perfect fluids. Internal forces, conservation laws, Eulerian and Lagrangian approaches. Complex potentials, sources and sinks. Blasius' theorem, Flows past plates and cylinders.

Text: To be announced.

Lectures: Three hours a week, two semesters.

PHILOSOPHY

Rolf Gruner	Associate Professor, Chairman
Robert N. Ansell	Assistant Professor
Richard H. Beis	Associate Professor
Lawrence Dewan	Associate Professor
R.C. Marshall	Associate Professor
Arthur P. Monahan	Professor
William A. Stewart S.J.	Professor
H. Lackner	Assistant Professor

The courses from No. 120 to No. 129 inclusive are introductory and *alternative*. Normally, a student selects one of them according to his preference.

120: INTRODUCTION TO PHILOSOPHY

An introductory examination of Philosophy as an intellectual discipline and type of knowledge and of its method of treating such problems as the nature of reality, human knowing and human values.

Text: To be announced.

Lectures: Two hours a week; two semesters.

Seminar: One hour every second week.

121: INTRODUCTION TO PHILOSOPHY

W.A. Stewart

This course deals with five major philosophical problems: The problem of philosophy itself, of knowledge, of material being, of living material being, of man. The student is encouraged to seek intellectually satisfying answers for himself, and at the same time to examine critically some of the major historical and contemporary viewpoints. The course's primary aim is the development of method in philosophy and of the student's own critical intelligence and reflection.

Lectures: Two hours a week; two semesters.

Seminar: One hour every second week.

122: INTRODUCTION TO PHILOSOPHY

A.P. Monahan

An effort to show what philosophy is, from an examination of what it does. Selections from the history of the discipline as a background for contemporary philosophy.

Text: To be announced.

Lectures: Two hours a week; two semesters.

Seminar: One hour every second week.

123: INTRODUCTION TO PHILOSOPHY: LOGIC, MAN AND SCIENCE

R.C. Marshall

First term: An introductory study of logic, including uses of language, informal fallacies, definition, forms of deductive and inductive argument.

Second term: An examination of philosophical problems which emerge from a consideration of human capacities and behaviour and physical phenomena. Perception and the reality of material things, reasons and causes, free choice and necessity, minds and machines.

124: INTRODUCTION TO PHILOSOPHY: LOGIC AND METHODOLOGY

R. Gruner

A description and analysis of the most important tools of formal and informal reasoning with discussion of the following topics: Basic logical concepts; formal relations and arguments; language and meaning; informal inferences and procedures.

125: INTRODUCTION TO PHILOSOPHY: SEMANTICS, LOGIC AND GENERAL PHILOSOPHICAL ISSUES

(Evening Course)

R.N. Ansell

The first term will be devoted to the development of precision, rigour and clarity in the student's thinking. Lectures will be supplemented by seminars in which small groups will work through exercises in logic and semantics, of an elementary character.

During the second term general philosophical issues will be discussed in lectures and seminars. Fundamental problems in ethics, philosophy of religion, philosophy of mind, philosophy of perception and theory of knowledge will be raised.

126: INTRODUCTION TO PHILOSOPHY

L. Dewan

What is meant by "philosophy"? Could it exist? Has it ever existed?—Peace and war, freedom, education, propaganda, drugs, pornography: Has "the philosopher" anything worth hearing regarding these issues? Or regarding technology and the sciences? Does the human intelligence stand in need of liberation? Is a God a principle of enslavement or of liberation?—This course discusses these questions.

Reading list: To be announced.

127: INTRODUCTION TO PHILOSOPHY: THE BIG QUESTIONS.

H. Lackner

The examination of the most basic pre-suppositions of human life and knowledge, in the light of Kant's four questions,

What can I know?

What ought I to do?

What may I hope for?

What is man?

Texts: To be announced.

Lectures and seminars three times a week.

128: INTRODUCTION TO PHILOSOPHY

An introduction to philosophy through the writings of the Greek thinkers (Presocratics, Plato, Aristotle).

129: INTRODUCTION TO PHILOSOPHY

R. Beis

This course will introduce the student to philosophy through the examination of problems arising within four areas of philosophy: Ethics, Philosophy of Mind, Philosophy of Science, and Philosophy of Language. Ethics will consider such problems as the nature of morality and freedom, and the relation of metaethical approaches to these problems. In the Philosophy of Mind the Mind-Body Problem and the nature of consciousness and mental phenomena will be examined. The Philosophy of Science will inquire into the nature of scientific explanation, laws, and theories. In the Philosophy of Language theories of meaning, theories of signs, and language about God will be investigated.

Texts: To be announced.

150: MODERN LOGIC

An introduction to the methods and problems of modern logic, designed to introduce students to the theoretical structure of logic and develop facility in its techniques.

Text to be announced.

Lectures: Three hours a week, two semesters.

200: PHILOSOPHY OF BEING

Prerequisite: Philosophy 120

An introduction to basic problems in metaphysics and the philosophical investigation of God; and an introduction to basic problems in theory of knowledge in the context of modern and contemporary philosophy.

Text: Insight – Bernard Lonergan.

Lectures: Two hours a week, two semesters.

Seminar: One hour every week.

209: MARXIST PHILOSOPHY

Prerequisites: None (Philosophy, Sociology or Economics Courses would be helpful)

An objective exposition and critical evaluation of the Philosophy of Marxism.

Texts: The Development of Dialectical Marxism – Jordan; The Marxists – Mills; Essays on Politics and Philosophy – Marx.

Lectures and Seminars: Three hours a week, two semesters.

211, PHILOSOPHY OF MIND

Prerequisites: None (Philos. 120 and/or Psych. 120 would be helpful).

Objective of course: To discuss attempts to answer one of the most important philosophical questions of all times: What is man?

Texts: The Difference of Man and the Difference it Makes – Adler;

Theories of the Mind – Sher;

Philosophy of Mind – Schaffer.

Lectures and Seminars: Three hours a week, two semesters.

250: GREEK PHILOSOPHY

A history of Greek philosophy with particular emphasis on its major figures, Plato and Aristotle.

Text: A history of Ancient Western Philosophy — Joseph Owens.

Lectures: Three hours a week, two semesters.

300: INTRODUCTION TO ETHICS

Prerequisite: Philosophy 120's.

An introduction to moral philosophy designed to acquaint students with historical expressions of basic ethical problems and with contemporary analytic approaches to ethics.

Text: Approaches to Ethics—Jones, Sontag, Beckner, and Goelin; Moral Philosophy—Garner and Rosen; various volumes from the History of Philosophy—Copleston.

Lectures and Seminars: Three hours a week, two semesters.

306: EPISTEMOLOGY

Prerequisite: Philosophy 120's.

An investigation of the problem of knowledge through a study of the epistemological thought of Bernard Lonergan.

Text: Insight — Bernard Lonergan.

Lectures: Two hours a week, two semesters.

Seminar: One hour every second week.

308: PHILOSOPHICAL LOGIC

Prerequisite: Philosophy 120's.

The course tackles philosophical problems surrounding, and arising out of logic: the nature of logic and mathematics, analyticity, modal properties, the *a priori*, logical truth, mathematical truth. (The relevance of these topics to the gauging of past, present and future philosophical techniques will be brought to the fore.) Subsidiary topics: identity, proper names, the verb 'to exist' and the ontological argument, Russell's theory of descriptions, conditional statements, entailment, Platonism, Nominalism, logical paradoxes.

Text: To be announced.

Lectures and Seminars: Three hours a week, two semesters.

350: MEDIAEVAL PHILOSOPHY

A history of the major philosophical doctrines and currents in western Europe from the period of Augustine to the 15th century.

Text: History of Christian Philosophy in the Middle Ages—E. Gilson.

Lectures: Three hours a week, two semesters.

351: PHILOSOPHY OF SCIENCE

Prerequisite: Philosophy 120

An introduction to the main problems of the philosophy of science designed to familiarize students with some of the contemporary analyses of scientific concepts and methods.

Text: Introduction to the Philosophy of Science—A. Pap.

Lectures: Three hours a week; two semesters.

352: BRITISH EMPIRICISM

Prerequisite: Philosophy 120's.

A history of the development of the empiricist school of British philosophy from Francis Bacon to John Stuart Mill.

Text: Readings in Bacon, Hobbes, Locke, Hume, Bentham and Mill.

Lectures and Seminars: Three hours a week; two semesters.

353: CONTINENTAL IDEALISM, DESCARTES TO HEGEL

Prerequisite: Philosophy 120's.

A lecture and seminar course to examine the development of rationalist and idealist thought from Descartes to Hegel.

Text: Readings in Descartes, Malebranche, Spinoza, Leibniz, Kant, Fichte, Schelling and Hegel.

Lectures and Seminars: Three hours a week, two semesters.

354: METAPHYSICS AS A KNOWLEDGE OF GOD

Prerequisite: Philosophy 120's.

What is the idea of metaphysics? Is it possible? Does it exist? This course studies these problems while introducing the student to three classical works, the *Metaphysics* of Aristotle, the *Summa Theologiae (prima pars)* of St. Thomas Aquinas, and the *Critique of Pure Reason* of Immanuel Kant.

Lectures: Three hours a week, two semesters.

402: PHILOSOPHY OF THE SOCIAL SCIENCES

Prerequisites: Philosophy 120's and a second course in philosophy.

An examination of the logical and methodological problems which arise in the social sciences and which touch upon the following topics: empirical and theoretical concepts; explanation, generalization and the formation of theories; purpose and function; values and objectivity.

Texts: Philosophy of Social Science —R.S. Rudner; Readings in the Philosophy of the Social Sciences—M. Brodbeck (Ed.).

Lectures: Two hours a week; two semesters.

Seminars: One to two hours a week; two semesters.

449: THE PHILOSOPHY OF WITTGENSTEIN

Prerequisites: Philosophy 120 and a second course in philosophy.

A critical examination of Wittgenstein's philosophy, chiefly that of the late period.

Text: Remarks on the Foundations of Mathematics, The Blue and Brown Books, Philosophical Investigations—L. Wittgenstein.

Lectures, Seminars and Tutorials: Approximately three times per week, two semesters.

452: PHENOMENOLOGY

Prerequisites: Philosophy 120 and a second course in Philosophy.

The origins, development, concepts, method and influence of the phenomenological movement in contemporary Philosophy.

Texts: Selections from Husserl, Heidegger, Sartre, Merleau-Ponty
Reference: The Phenomenological Movement—H. Spiegelberg, 2 vols.

Lectures and Seminars: Three hours a week, two semesters.

453: THE PHILOSOPHY OF HISTORY

Prerequisites: Philosophy 120 and a second course in Philosophy.

A critical study of major theories of historical knowledge; a consideration of the nature and value of history, and of its principles of explanation, selection and evidence.

Texts: Philosophy of History — Walsh; Philosophical Analysis & History —Dray (Ed.).

Lectures and Seminars: Three hours a week, two semesters.

454: CONTEMPORARY EXISTENTIALIST THOUGHT

Prerequisites: Philosophy 120 and a second course in Philosophy.

A lecture and seminar course to examine the origins, expressions and significance of nineteenth and twentieth century existentialism.

Texts: Readings in Kierkegaard, Nietzsche, Jaspers, Heidegger, Marcel, Sartre, Camus.

Lectures and Seminars: Three hours a week; two semesters.

455: CONTEMPORARY ANALYTIC PHILOSOPHY

Prerequisites: Philosophy 120 and a second course in Philosophy.

A lecture and seminar course to examine the origins, expressions and significance of the contemporary analytic movement in philosophy.

Texts: Readings from representative members of the Analytic School.

Lectures and Seminars: Three hours a week, two semesters.

456: ADVANCED ETHICAL THEORY

Prerequisites: Philosophy 120 and a second course in Philosophy.

A lecture and seminar course to examine certain fundamental problems of contemporary ethics. Attention will be concentrated on metaethical problems which arise from and are discussed in the writings of Moore, Stevenson, Hare, Nowell-Smith, Frankena, Hampshire, and Brandt.

Text: Selected readings in the above mentioned authors.

Lectures and Seminars: Three hours a week, two semesters.

457: AUGUSTINE AND AQUINAS ON PHILOSOPHY

Prerequisite: Philosophy 120's.

A lecture and seminar course to explore the meaning of philosophy and its relation to theology in the writings of Augustine and Aquinas.

Lectures and Seminars: Three hours a week, two semesters.

459: PHILOSOPHY OF LANGUAGE

Prerequisites: Philosophy 120's and a second course in Philosophy.

A seminar course to examine the role of analogy, and perceptual vocabulary.

Text: To be announced.

Seminar: Three hours a week, two semesters.

PHYSICS

D. Murty	Professor Chairman
W. Long S.J.	Assistant Professor
G. McNevin	Lecturer
U. Merdsoy	Assistant Professor
G.F. Mitchell	Assistant Professor
F. Tomscha	Assistant Professor

NOTE: Students failing to complete a laboratory course prior to the date of examination will not be eligible to write the examination. Marks will be awarded for the practical work and combined with the examination results for the final mark.

111: GENERAL PHYSICS

Introduction to mechanics, sound, light, heat and electricity.

Text: Physics—White (Van Nostrand).

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

121: UNIVERSITY PHYSICS

Tutorial (Compulsory) one hour a week.

Prerequisite: Physics 111 or a knowledge of Grade 12 Physics is necessary and it will be essential for students to be taking an Introductory Calculus course concurrently.

Topics will include: Mechanics, heat, sound, light and electricity.

Text: University Physics—Sears and Zemansky.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

222: OPTICS, ELECTRICITY AND MAGNETISM

Prerequisites: Physics 121 and Math 222 (Concurrently).

Optical Instruments, physical optics, including wave theory, polarization.

Electricity and Magnetism; fundamental theory and concepts. Basic electric and magnetic properties of materials.

Text: Optics by Sears, Addison-Wesley, Electricity and Magnetism — Blackworth, Holt-Rinehart-Winston.

Lectures: Three hrs/per/wk, two semesters.

Laboratory: Three hrs/per/wk, two semesters.

34: THEORETICAL MECHANICS

Prerequisites: Physics 222 and Math 222 (concurrently).

Introduction to Vector Analysis, work and potential energy, principle of virtual work the damped harmonic oscillator, the forced harmonic oscillator, motion of a particle under the action of a central force, derivation of the Law of Force from Kepler's Laws, the Two-body problem and Kepler's 3rd Law. Motion of a system of particles, motion of rigid bodies in three dimensions, generalized coordinates, holonomic and non-holonomic constraints, degrees of freedom, Lagrange's Equations, Hamilton's Principle, the Hamiltonian Function, Hamilton's Canonical Equations, wave motion, the wave equation, DeBroglie's Wave Mechanics, Operator Method in Quantum Mechanics, brief introduction to Linear Operators, the Schrodinger Equation.

Text: Introduction to Theoretical Mechanics — R.A. Beckers,

Lectures: Three hours per week, two semesters.

33: ELECTROMAGNETIC THEORY

Prerequisites: Physics 222, Mathematics 222, Mathematics 333 (may be taken concurrently).

Alternating currents, development of the theory of electric and magnetic fields, solutions of Maxwell's equations, theory of light, potential, images, skin effect, multipoles.

Text: Electromagnetic Theory—Reitz and Milford (Wiley & Sons)

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

336: ELECTRIC CIRCUITS (ENGINEERING 305)

Prerequisite: Mathematics 222, Physics 121.

Circuit elements, equilibrium equations (mesh and node), the principle of duality, Laplace transforms, network theorems, energy and power, complex impedance and the use of phasors, steady state analysis of circuits, two-terminal networks two-terminal-pair networks and basic measurements.

Text: Electrical Engineering Circuits—Skilling (Wiley)

Reference: Networks, Lines and Fields—Ryder (Prentice-Hall)

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

337: ATOMIC AND NUCLEAR PHYSICS

Prerequisites: Physics 222 and Maths 222.

Atoms, electrons, radiations, the nuclear atom, X-rays, and atomic structure, quantum theory of radiation, special theory of relativity, group velocity and wave velocity, atomic spectra and atomic structure, the nucleus, isotopes, natural radioactivity and the radioactive law, artificial nuclear disintegration, artificial radioactivity alpha-decay, beta-decay and gamma-decay, nuclear reactions, nuclear forces, nuclear fission, nuclear energy source, particle accelerators.

Text: Nuclear Physics—Irvin Kaplan (Addison-Wesley).

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

339: PHYSICAL OPTICS AND OPTICAL INSTRUMENTS

Prerequisites: Physics 222, Mathematics 333.

Geometrical optics, optical design and instruments, Radiation law, wave behaviour of light and formulation of theories, Stimulated radiation and coherence theory, Lasers and Q-switching.

Text: Principles of Optics—Max Born and Emily Wolf.

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

350: ELECTRICAL MEASUREMENTS AND MEASURING INSTRUMENTS

Prerequisites: Mathematics 222, Physics 333 (may be taken concurrently).

Measurements of inductance, capacitance, and resistance, potentiometers, magnetic measurements, illumination, high-voltage measurements and testing, electrical methods of measuring temperature, eddy currents, measuring instruments, measurement of power, energy measurement of speed, frequency and phase difference.

Text: Electrical Measurements and Measuring Instruments—Golding (Sir Isaac Pitman and Sons).

Lectures: Three hours a week, two semesters.

Laboratory: Three hours a week, two semesters.

BS1: ELECTRONICS

Prerequisites: Mathematics 222, physics 333 (may be taken concurrently).

Electrical measurements, power supplies, application by vacuum tubes and transistors amplifier circuits, oscillators, comparison measurements, servo systems, operational amplifiers for measurement and control, electronic switching and timing and digital counting systems, an integrated system of instruments, test equipment and rapid-connect parts, electrical signals and reactive circuits.

Text: To be announced

Lectures: Three hours a week; two semesters.

Laboratory: Three hours a week, two semesters.

BS2: ADVANCED MECHANICS

Prerequisites: Physics 234 and Maths 222

A study of generalized mechanics with particular emphasis on those formulations required for quantum mechanics and statistical physics.

Topics will include: Lagrange's equations, Hamilton's canonical equations, variational principles transformation theory, the Hamilton-Jacobi method, continuous systems, fields.

Text: Classical Mechanics—J.W. Leech (Methuen)

Reference: Classical Mechanics—H. Goldstein (Addison-Wesley)

Lectures: Three hours a week, one semester-half course.

BS3: CLASSICAL THERMODYNAMICS

Prerequisites: Physics 234 and Math 222

Thermal phenomena from a macroscopic viewpoint: Temperature, work, heat, internal energy, entropy, the laws of thermodynamics, other state functions, Maxwell's relations, applications to simple systems, criteria for equilibrium.

Text: Thermodynamics — Vanderslice, Schamp, and Mason (Prentice-Hall)

Lectures: Three hours a week, one semester - half course.

450: TOPICS IN THEORETICAL PHYSICS

Prerequisites: Physics 234, Math 333.

Fluid dynamics, elasticity, tensor calculus, the theory of relativity.

The areas of greatest concentration will be decided upon in consultation with the students.

Texts: Fluid Dynamics —G.H.A. Cole (Methuen).

Tensor Calculus—B. Spain (Oliver and Boyd).

Lectures: Three hours a week, two semesters.

451: THERMODYNAMICS AND STATISTICAL MECHANICS

Prerequisites: Physics 333, Mathematics 333.

First and second law of thermodynamics and their application to simple thermodynamic systems and to chemical reactions. Kinetic theory and transport phenomena—in statistical mechanics the macro canonical and grand canonical ensembles, and Bose-Einstein and Fermi-Dirac statistics are discussed and applied to gases, electrons in metals, and low temperature physics.

Text: Thermodynamics and Statistical Mechanics—Zemansky.

Lectures: Three hours a week two semesters.

452: QUANTUM MECHANICS

Prerequisites: Physics 333, Mathematics 333.

Wave mechanical concepts—wave equation of Schrodinger—energy eigenfunction—examples of energy eigen functions—general principles of quantum mechanics—interpretative postulates of quantum mechanics—operators with continuous spectra—uncertainty principle—matrix mechanics—the equation of motion of operator—the Dirac notation for wave functions and operators—spin—Pauli's principle—time independent perturbation theory—collision processes—elastic scattering by fixed center of force—Born approximation—inelastic scattering processes—Dirac equation for a free particle.

Text: Quantum Mechanics—mandl (Butterworth Publication, London).

Lectures: Three hours a week, two semesters.

453: UPPER ATMOSPHERE

Prerequisites: Physics 333, Mathematics 333

Meteorological conditions in the lower stratosphere, structure and circulation of the upper stratosphere and mesosphere, the sun's radiation and the upper atmosphere, composition of the stratosphere and mesosphere, composition and structure of the thermosphere, heat transfer and radiative processes, atmospheric tides and winds in the lower thermosphere, introduction to some other aeronomic problems, the transport properties in the upper atmosphere.

Text: The Upper Atmosphere—Craig (Academic Press, New York).

Reference: Physics of the Upper Atmosphere—Ratcliffe (Academic Press, New York).

Lectures: Three hours a week, two semesters.

454: INTRODUCTION TO SOLID STATE PHYSICS

Prerequisites: Physics 333

Crystal Structure; Lattices vibrations; Free electron Fermi gas; Band structure; Properties of simple metals; semiconductors and insulators; Superconductivity.

Text: Introduction to Solid State Physics —C. Kittel (Wiley and Sons)

Lectures: Three hours a week; one semester - half course

Laboratory: Three hours a week, one semester.

455: TOPICS IN ADVANCED NUCLEAR PHYSICS:

Prerequisites: Physics 337, Maths 333.

Some selected topics in Nuclear Physics will be discussed. Topics will be oriented towards research problems.

Reference: Alpha-Beta-Gamma Ray Spectroscopy. Vol. 1 and 2. K. Siegbahn. (Norr-Holland)

Lectures: Three hours a week—one semester—one half-course

456: ASTROPHYSICS

Prerequisites: Physics 333, Maths 333.

An investigation of the physics of stellar structure with applications to the evolution of stars, nucleosynthesis, supernovae, and neutron stars.

The relation of stellar physics to galaxy evolution and to the cosmological problem will be examined.

Text: To be announced!

Reference: Principles of Stellar Structure—Cox Giuli (Gordon and Breach)

Lectures: Three hours a week, one semester — half-course.

ASTRONOMY 301: INTRODUCTION TO ASTRONOMY

Prerequisites: Physics 121, Mathematics 121.

An introductory survey of astronomy with emphasis on physical principles. The Solar System: The structure and motions of the earth, the moon, planetary orbits, properties of the planets, comets, meteors, the sun. Properties of Stars: Radiation theory, stellar spectra, stellar atmospheres, stellar interiors, the evolution of stars, variable stars, supernovae. Stellar Systems: Binary stars, star clusters, the structure of our galaxy, galaxies and the universe.

Text: Essentials of Astronomy — L. Motz and A. Duveen (Wadsworth)

Lectures: Three hours a week, two semesters.

There will be occasional evening observing sessions by arrangement.

POLITICAL SCIENCE

Theodore B. Ciuciura

Robert G. Boyd

Guy Chauvin

William J. Dalton

Edward J. McBride

Robert Vaison

Chairman, Professor

Associate Professor

Lecturer

Professor

Assistant Professor

Instructor, Part-time

121: INTRODUCTORY POLITICAL SCIENCE

An introduction to the scope and methods of political science. The nature of the state will be examined, as well as the various purposes advanced for its existence. The student will be introduced to various aspects of government, political parties, international relations and political philosophies.

Text: To be announced

Lectures and group discussions: three hours a week, two semesters.

200: SCOPE AND METHODS OF POLITICAL SCIENCE

Prerequisite: Political Science 121

An introduction to the concerns and methodologies of modern political science. Included will be a discussion of theories and approaches developed by the empirical school of political scientists.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters

202: DEMOCRATIC GOVERNMENT

An examination of the basic features of western democratic government. Great Britain, the United States and Canada are used as the main examples of this type of government. Considerable attention is paid to the ideological foundations of the modern liberal democratic state.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters.

203: GOVERNMENT AND POLITICS IN THE SOVIET UNION AND EAST CENTRAL EUROPE

A survey of the history, culture and political institutions of the old Russian Empire and the U.S.S.R. An analysis of the social and economic backgrounds of the political setting in the Soviet Union; the development and techniques of the one-party state; the installation of Communist regimes in East Central Europe.

Text: The Soviet System of Government—John N. Hazard (U. of Chicago Press) and The Soviet Union: An Introduction—George A. Lensen (Appleton-Century-Crofts).

Lectures and group discussions: Three hours a week, two semesters.

204: CANADIAN GOVERNMENT AND POLITICS

Prerequisite: Political Science 121 or equivalent.

A study of Canada's form of constitutional democracy, encompassing an analysis of political institutions and political parties. Aspects of Canadian federalism will be discussed.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters.

205: INTERNATIONAL RELATIONS

Prerequisite: Political Science 121 or equivalent

An introduction to the foreign policies of the major democracies, the Communist powers, and the new states, and a survey of processes of conflict and co-operation in the world community, with special reference to trends towards regional integration and to problems of arms control and economic development.

Texts: Foreign Policy in World Politics – Roy C. Macridis, (ed.) 3rd. ed. (Prentice Hall) 1967, and International Politics—K.J. Holsti (ed.) (Prentice Hall) 1967.

Lectures and group discussions: Three hours a week, two semesters.

206: COMPARATIVE STUDY OF GOVERNMENTS: WESTERN EUROPE

Prerequisite: Political Science 121 or equivalent.

A detailed comparative analysis of the institutions and functions of the national political systems, primarily of the United Kingdom, France and Germany.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters.

212: GOVERNMENT AND POLITICS OF THE U.S.A.

Prerequisite: Political Science 121 or equivalent.

An inquiry into the theory and practice, the nature and operation, and the form and function of the American system of government, with particular emphasis upon the overlapping spheres of the government structure, the constitutional order and the political process.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters.

308: INTERNATIONAL LAW: AN INTRODUCTION

Prerequisite: Political Science 121 or equivalent.

The principal features of public international law as they have developed and have been invoked in diplomatic practice, international adjudication, and national courts; the defects and weaknesses of the international legal system; trends in law and its probable lines of development.

Texts: International Law: A Text → H.B. Jacobini (Dorsey Press), Basic Documents in International Law – Ian Brownlie (Oxford), and selected cases.

Lectures and group discussions: Three hours a week, two semesters.

349: COMPARATIVE CONSTITUTIONAL LAW

Prerequisite: Political Science 121 or equivalent.

A comparative analysis of constitutional systems. It focuses upon the theory and exercise of judicial review, in the context of either Canadian and American constitutional law, or European constitutional practice. It combines lectures, collateral readings, and the case method.

Text: To be announced.

Lectures and group discussions: Two hours a week, two semesters.

350: INTRODUCTION TO PUBLIC ADMINISTRATION

Prerequisite: Political Science 121 or equivalent.

A study of the structure and operation of the administrative branch of government – both in theory and in practice. Included will be an examination of the evolution of the Canadian federal public administration and public service, with some attention for comparative purposes to related experience in other nations. The administrative responsibilities and powers of the modern state will be assessed, and a sampling of recent organization theories will be undertaken.

Texts: To be announced.

Lectures and group discussions. Three hours a week, two semesters.

355: POLITICAL THOUGHT TO THE FRENCH REVOLUTION

A historical treatment of the most important political ideas from the earliest writings on politics to the immediate precursors of the French Revolution. Some attention is paid to the mutual interaction of social conditions and ideas.

Text: To be announced.

Lectures and group discussions: three hours a week, two semesters.

356: MODERN POLITICAL THOUGHT

An examination of political ideas from the French Revolution era to the present, with special emphasis on Utilitarianism, Liberalism and Marxism.

Text: To be announced.

Lectures and group discussions: Three hours a week, two semesters.

359: INTERNATIONAL ORGANIZATIONS

Prerequisite: Political Science 121.

A study of the structures of and the processes of co-operation and conflict within the United Nations, the European Economic Community, NATO, the Commonwealth, the Warsaw Pact, CMEA, the OAS and the OAU.

Text: Selected readings will be assigned.

Lectures and group discussions: Three hours a week, two semesters.

360: THE POLITICS OF THE DEVELOPING AREAS

An examination of problems of political development in Asian and African states, in the context of their modernization processes, with special reference to factors responsible for the emergence of authoritarian governments.

Texts: The Politics of the Developing Areas – G.A. Almond and J.S. Coleman eds. (Princeton U. Press, 1960) and Political Culture and Political Development – L.W. Pye and Sidney Verba (Princeton U. Press, 1965).

Lectures and group discussions: Three hours a week, two semesters.

361: GOVERNMENT AND POLITICS IN EAST ASIA

A study of government structures and political dynamics in mainland China, Southeast Asia and Japan, with emphasis on current trends in the Chinese system.

Texts: Major Governments of Asia – G. McT. Kahin ed., 2nd edition (Cornell U. Press, 1963), Ideology and Organization in Communist China – F. Schurman (U. of California Press, 1966) and Government and Politics of Southeast Asia – G. McT. Kahin ed., 2nd edition (Cornell U. Press, 1964).

Lectures and group discussions: Three hours a week, two semesters.

370: POLITICAL PARTIES AND VOTING BEHAVIOUR

An analysis of the structures and functions of individual parties and party systems, with emphasis on the United States, Canada and Britain.

Lectures and group discussions: Two hours a week, two semesters.

450: SEMINAR IN THE HISTORY OF POLITICAL THOUGHT

An intensive study of major trends in political thought, early and modern, with special attention to contemporary political doctrines and ideologies, their transformation in the course of history and their interrelation in the course of history and their interrelation with social and political conditions.

Sessions: Two hours a week, two semesters.

451: CANADIAN GOVERNMENT SEMINAR

A study of selected aspects of Canadian government and politics, especially some of the dynamic forces which operate outside the formal constitutional framework.

Sessions: Two hours a week, two semesters.

452: SEMINAR IN COMPARATIVE GOVERNMENT

Conceived as a work-study group, this seminar is designed for students interested in the use of the comparative method in the analysis of contemporary national political systems.

Sessions: Two hours a week, two semesters.

453: INTERNATIONAL STUDIES SEMINAR

A seminar on the contemporary interaction of the major powers, with special consideration of selected world problems, tensions, trends and developments.

Texts and references are provided in the International Studies Research Room.

Sessions: Two hours a week, two semesters.

455: SEMINAR ON CANADIAN FOREIGN POLICY

An examination of the factors shaping Canada's external policy, the major issues in her foreign relations, and her roles in the international community. Special attention is given to Canada's participation in the United Nations, NATO and the Commonwealth, and to her aid programmes in the developing areas. Texts and references are provided in the International Studies Research Room.

Sessions: Two hours a week, two semesters.

PSYCHOLOGY

G. Gordon
S. Ahmad
T. Baydar
C. Hayes
I. Lenzer

Chairman, Assistant Professor
Assistant Professor
Lecturer
Lecturer
Assistant Professor

120: INTRODUCTION TO PSYCHOLOGY

Prerequisites: Sophomore standing, or permission of the department.

The science of behaviour. Methods and Measurement. Physiological basis of behaviour. Maturation and development. Individual Differences and Intelligence. Personality. Sensory Processes and Perception. Learning, memory and thinking. Motivation and emotion, Social and clinical Psychology. Applications of Psychology.

Each person taking this course must act as a subject for psychological experiments for a certain number of hours as a prerequisite for his credit. The number of hours will be announced at the beginning of the course.

Text: To be announced.

Lectures: Three hours a week, two semesters.

203: PSYCHOLOGY OF LEARNING

Prerequisites: Psychology 120. The student is recommended to take Psychology 205 or 212 concurrently.

Classical conditioning and instrumental learning will be studied as examples of the learning process. In addition, factors such as reinforcement, punishment, generalization, discrimination, transfer of training, extinction, short-term and long-term retention, interference, all-or-none versus incremental learning and the physiological correlates of learning will be studied.

Text: J. Deese and S.H. Hulse: The Psychology of Learning (McGraw-Hill).

Lectures: Two hours a week, two semesters.

Laboratory: Two hours a week, two semesters.

204: THE PSYCHOLOGY OF SENSATION AND PERCEPTION.

Prerequisites: Psychology 120. The student is recommended to take Psychology 205 or 212 concurrently.

The physical properties of stimuli, the physiological apparatus for sensing the environment, the perceptual process for extracting relevant information from sensory data and the interaction of the senses.

Text: The World of Perception – K. von Fieandt (Dorsey)

Books recommended: The Human Senses – F.A. Geldard
Human Senses and Perception – G.M. Wyburn, R.W. Pickford, E.J. Hirst.

Lectures: Two hours a week, two semesters.

Laboratories: Two hours a week, two semesters.

205: EXPERIMENTAL DESIGN AND PSYCHOLOGICAL STATISTICS

Prerequisites: Psychology 120. Mathematics 111. Psychology 205 or Psychology (Mathematics) 212 are compulsory for all students wanting to take 300 level Psychology courses. Students are strongly advised to take Psychology 205 or 212 in the same year as 203 or 204.

Importance of Statistics in Psychology. Permutations and Combinations. Probability and Probability Distributions. Binomial and normal distributions. Characteristics of distributions: skewness, kurtosis, measures of central tendency and dispersion. Sampling and hypothesis testing. Parametric statistics: t, F, and chi-square tests; Analysis of Variance and Covariance; Correlation and Regression. Non-parametric Statistics: Mann-Whitney and Wilcoxon; Friedman; Spearman's and Kendall's correlation coefficients.

Designing experiments in Psychology in the light of the above. Varying factors and observing changes in responses. Interpretation of results based on experimental design and application of the relevant statistic. Emphasis in this course will be laid on applications of statistics, and upon practical analysis of results obtained in laboratory courses 203 and 204.

Text: To be announced.

Lectures and Laboratory: Three hours a week, two semesters.

212: SEE MATHEMATICS 212

303: PSYCHOLOGY OF MOTIVATION

Prerequisites: Psychology 201 (1968-69 Calendar), 203, or 204. Psychology 205 or 212.

A study of the impelling factors in behavior such as needs, drives and incentives. Behavioural and physiological components of hunger, thirst, sex, and intracranial self-stimulation.

Text: R.C. Bolles – Theory of Motivation

Additional required readings: Motivation – D. Bindra and J. Stewart (Eds.)

The Nature of Emotion – M.B. Arnold (Ed)

Lectures: Two hours a week, two semesters.

Laboratory: Two hours a week, two semesters.

304: COMPARATIVE AND PHYSIOLOGICAL PSYCHOLOGY

Prerequisites: Psychology 201 (1968-69 Calendar), 203 or 204.

Psychology 205 or 212

Physiological and Neural Mechanisms in Behaviour. Phylogenetic Comparisons of Behaviour. The Cortex and its Importance in the Control of Psychological Functions. Central versus Autonomic Nervous Systems. DNA, RNA, and the genetics of behaviour. Endocrine Systems. Behavioural change through Cortical Stimulation, lesion, or chemical action. The Electro-Encephalogram. Sensory Processing. Learning and Motivation considered physiologically.

Text: R.F. Thompson – Foundations of Physiological Psychology

Additional Required Readings: Readings in Physiological Psychology – T.K. Landauer (Ed).

Lectures: 3 hours a week, two semesters.

Laboratory: 1 hour a week, two semesters.

310: SOCIAL PSYCHOLOGY

Prerequisites: Psychology 120. Psychology 205 or 212. One of Psychology 201 (1968-69 calendar), 203 or 204 or any 300 level sociology.

Membership of groups. Communication, interaction, language and culture. Values. Group norms, attitudes and roles. Leadership and social stratification. Authority and prejudice. Group behaviour as compared with individual behaviour. Motivation and opinion change. Conflict. Criminal behaviour. Gambling and utility. Game theory. Psychoeconomics. Animal social life. A project will be undertaken as part of this course by students working individually or together.

Text: Individual in Society – Kretch, Crutchfield and Ballache (McGraw-Hill)

Books recommended: Readings in Social Psychology – Newcomb, Maccoby and Hartley (Holt, Rinehart and Winston)

Social Psychology – R. Brown (Free Press)

Social Psychology through Experiment – G. Humphrey and M. Argyle (Methuen)

Lectures: Three hours a week, two semesters.

Projects: Preparation first semester, completion second semester.

311: INDUSTRIAL AND APPLIED PSYCHOLOGY

Prerequisites: Psychology 201 (1968-69 calendar), 203 or 204. Psychology 205 or 212.

The Individual Within the Organization. Inter-personal relations and organizational structure. Selection, placement, training and performance. Motivation and morale. Leadership and decision-making. Psychomotor coordination in the carrying out of tasks. Cybernetics, work study, linear programming and critical path analysis.

Text: To be announced.

Lectures: Three hours a week, two semesters.

312: COGNITIVE PROCESSES

Prerequisites: Psychology 201 (1968-69 Calendar) 203 or 204. Psychology 205 or 212

Symbolic processes. Problem solving, creativity, concept formation and rule learning. Choice. Logic and psychologic. Communication, elements of language processing and psycholinguistics. Perception and memory as determiners of the decision-making process.

Text: A.W. Staats – Learning, Language and Cognition (Holt, Rinehart and Winston)

Lectures and Laboratory: Three hours a week, two semesters.

313: ARCHITECTURAL AND ENVIRONMENTAL PSYCHOLOGY

Prerequisites: Psychology 203 or 204. Psychology 205 or 212; (or permission of the Dept.)

The functions of buildings; the role of the architect in society. The criteria for design and patterns of research; performance, comfort, stimulation; curiosity, and arousal. Perception of space, personal and movement space, territoriality. Lighting; apparent brightness, gloom, glare. Acoustics; noise and stress, speech interference, distraction. Thermal environment; temperature and arousal, behavior under heat stress. Perception of the city; cognitive maps, the sonic environment, visual complexity. The street and its social functions. Stress in the urban environment; Calhoun's rats and the rat race.

Text: To be announced.

Lectures: Three hours a week, two semesters.

321: HISTORICAL AND CONTEMPORARY SYSTEMS OF PSYCHOLOGY

Prerequisites: Psychology 203 or 204. Psychology 205 or 212 or permission of the Department.

Greek Psychology. Arabian and Western European development. Medieval and Renaissance approaches. Early scientific influences: ideas from physics, mathematics and physiology. Nineteenth and twentieth century theories and experiments. Psychology as a natural, biological and social science. The outlook.

The basic issues: Classical and scientific Psychology. Voluntary and involuntary behavior. Respondent and Operant behavior. Choice and preference. Drives and values. Uncertainty and Information. Intelligence. Symbolic Processes and Language. Problems of measurement and evaluation. Organization and evaluation.

Text: To be announced.

Lectures: Three hours a week, two semesters.

331: CHILD PSYCHOLOGY AND ADOLESCENT DEVELOPMENT

Prerequisites: Psychology 201 (1968-69 Calendar), 203 or 204. Psychology 205 or 212, or the permission of the Department.

Research Methodology in Child Development. Theories of Behaviour and Development. Prenatal development. The Neonate. Maturation and Learning. Nature versus nurture. The Development of Intelligence and Personality. Psychological Assessment of Children. Problems of early life. Pathological versus normal development. Puberty. Changes and Problems of Adolescence.

Texts: Child Development and Personality — Mussen, Conger and Kagan (3rd edition).

Lectures: Three hours a week, two semesters.

332: CLINICAL PSYCHOLOGY

Prerequisites: Psychology 201 (1968-69 Calendar), Psychology 203 or 204. Psychology 205 or 212.

Mental illness and Mental health. Normal and abnormal behavior. Origin, development, symptoms and cures of certain behaviour disorders.

Neurosis and Psychosis. Psychological and physiological factors as causes of psychological problems. Counselling, psychotherapy, behaviour therapy, group therapy. Mental retardation. Functions of mental hospitals, child guidance clinics, psychotherapists and psychiatrists.

Text: To be announced.

Lectures and Laboratory: Three hours a week, two semesters.

333: PSYCHOLOGY OF PERSONALITY

Prerequisites: Psychology 201 (1968-69 Calendar), Psychology 203, or 204. Psychology 205 or 212.

Personality Theories of Freud, Jung, Adler, Fromm, Horney, Sullivan, Murray, Lewin, Allport, Sheldon, Eysenck, Rogers, Maslow and others. Psycho-dynamic, behaviour, factor and physiological approaches to personality development. Projective and scale measures of personality. Normal and abnormal personality. Neurosis and psychosis.

Text: To be announced.

Lectures: Three hours a week, two semesters.

340: EDUCATIONAL AND PSYCHOLOGICAL TESTS AND MEASUREMENTS

Prerequisite: Psychology 201 (1968-69 Calendar), 203 or 204. Psychology 205 or 212.

Basic principles: Statistical sampling and testing: Psychological measurement and the construction of scales. Test construction: standardisation, validity, reliability. Types of tests in common use: intelligence, aptitude, ability, personality, educational, vocational. Special tests: language, clerical, perceptual, speed, mechanical. Uses of testing and evaluation in teaching, counselling, educational and vocational selection, diagnosis and follow-up.

Text: A. Anastasi: Psychological Testing (3rd edition) (MacMillan)

Lectures and Laboratories: Three hours a week, two semesters.

QUANTITATIVE METHODS FOR COMMERCE

121. BASIC MATHEMATICS.

Prerequisite: None; not open to students with Mathematics 110A-110B

An introduction to linear algebra and set theory.

Lectures: Three hours a week, one semester - half course.

122. CALCULUS FOR BUSINESS AND ECONOMICS

Prerequisite: Quantitative Methods 121 or Mathematics 110A-110B

An introduction to the use of differential and integral calculus with emphasis on Business and Economic applications.

Lectures: Three hours a week, one semester - half course.

201: ELEMENTARY PROBABILITY AND STATISTICS FOR BUSINESS AND ECONOMICS

Prerequisite. Quantitative Methods 121 or Mathematics 110A-110B

An introduction to probability and statistics with emphasis on business and economic applications.

Lectures: Three hours a week, one semester - half course.

RELIGIOUS STUDIES

S. A. Armstrong,	Acting Chairman, Assistant Professor
G. R. Hoffman, S.J.	Assistant Professor
T. Macho, S.J.	Part time
L. B. Miller, S.J.	Lecture
L. T. Murphy, S.J.	Assistant Professor
T. F. Rigelhof	Lecture
G. W. Tait, S.J.	Part time

121: THE VARIETIES OF RELIGIOUS EXPERIENCE

This course treats of human spirituality in samplings of its many forms presented to the student through the various historical and theoretical perspectives afforded by the ethical, mystical, liturgical, and theological systems of the major world religions. The course seeks to develop in the student an understanding of the religious component of human experience in both its essence and manifestations.

Staff

Lecturers and tutorials; two semesters

No prerequisites.

301: RELIGIOUS ROOTS OF WESTERN CULTURE

A study of some key religious ideas which arose among the Hebrews, the Greeks or the Church of New Testament times; and how they have influenced Western Culture.

302: ATHEISTIC HUMANISM

A study of the humanism of the Marxist and of the French existentialists, particularly their thesis, that only an atheism can be a true humanism.

Lectures and discussions; two semesters.

303: MYTH AND HISTORY: THE PROBLEM OF INTERPRETING HUMAN EXISTENCE

The tragedy of human life; absurdity and meaning; attempts at meaning; the origin and nature of myth, historicism, and salvation history; attempts to work out a theology of history from scriptures with a stress on promise and fulfillment; the nature of Christian hope.

Armstrong

Lectures and discussions; two semesters.

304: THE DEVELOPMENT OF THE DOGMAS REGARDING THE WORD INCARNATE

After a careful examination of New Testament teaching as the basis for the subsequent development, the Christology of the more important early Fathers and ecclesiastical writers will be studied. Next the Arian controversy and two Ecumenical Councils dealing with it, Nicaea I, and Constantinople, will be examined. Finally the great Christological controversies and Councils, particularly of the fifth century, will be studied, leading to a clear understanding of the Christological formulae that emerged from these.

Hoffman

Texts: *The Bible*; Philip Hughes, *A History of the Church*.

Lectures and discussions; two semesters.

305: INTRODUCTION TO THE BIBLE

A study of the history and literary form of various books in the Bible.

Lectures and discussions; two semesters

307: THE MEASURE OF MAN

There are many distinct modes of human experience. Each mode is capable of providing a unique measure of our humanity. Each assigns central importance to one among many dimensions of our lives. No single perspective on man is adequate for dealing with the complexity

of life. The theologian's interest is in the "depth" dimension of human existence. However, we seriously misunderstand ourselves if we ignore the insight to be had from other perspectives. Consequently, we shall study the relationship of the depth dimension to a number of measurements of man such as those offered by science, history, art, and myth.

Armstrong

Texts: George Morgan, *The Human Predicament*, E. Cassirer, *An Essay on Man*.

Lectures and discussions; two semesters.

309: THE PRE-REFORMATION CHURCH

A detailed historical study of the various problems, political, intellectual, and religious, which had their origin during the period of early mediaeval Christendom, reached their climax towards the late middle ages, and resulted in the reformation.

Hoffmann

Text: Philip Hughes, *A History of the Church*, Vol. 3

(Cross listed as History 309)

***310: THE CHRISTAIN UNDERSTANDING OF MAN**

A study of who man is from the point of view of the Bible, Christian tradition and modern insights.

311: DEVELOPMENT OF CHRISTAIN PERSONALITY

A study of the notion of person and personal relationships; of the place of freedom in the development of the Christain person; of the transforming activating reality of grace; of the role of the Sacraments of Initiation in Christian transformation.

Murphy

Lectures and discussions: two semesters

***312: TEILHARD DE CHARDIN AND THE FUTURE OF MAN**

A study of Teilhard's vision of cosmic redemption as a response to the needs and problems of contemporary man.

***313: MORAL THEOLOGY**

A study of recent attempts to reformulate moral theology; and of some moral problems of the day.

Lectures and discussions. two semesters.

***314: CHURCH AS COMMUNITY**

A theological reflection on the literary expression of man's experience of community; on sociological and psychological insights into the structure and dynamics of human community.

***315: THE CHRISTIAN IN SOCIETY**

A study of some of the problems which emerge when we recognize that we live at the beginning of the "post-constantinian" age; of some contemporary social problems and possible Christian responses and responsibility.

316: CHRISTIAN SOCIAL ETHICS

Combining the different perspectives offered by Theology, Sociology, and Ethics, this course will be concerned with developing a comprehensive social ethic for modern society. Topics discussed in seminars will be the ethic of the Old and new Testaments scriptures, the development of social doctrines in the history of Christian thought, the rise of secularization and pluralization in modern society, the relationship of ethics and ideology, and the relation of social ethics to social policy. Some attention will be given to whether Christian social ethics can be revolutionary.

Miller

Lectures and discussions: two semesters.

*** 320: CONTEMPORARY PROTESTANT THOUGHT**

An exploration of the central insights of some of the major Protestant thinkers of our time. Special attention will be given to determining the usefulness of these insights for our understanding of ourselves and the world in which we live. The major work of the course will be the discussion, both in the classroom and in written form, of selected readings. No previous courses in theology are required.

***321: RELIGION IN A SCIENTIFIC AGE**

An exploration of the nature, history, powers, and limitations of science with attention of some of its wide-ranging effects on our understanding of ourselves and the world. We will ask how the role of science in our lives may aid, hinder, or be irrelevant to religious concerns. There are no prerequisites either in the sciences or in theology.

***322: MEDIAEVAL AND MODERN JEWISH HISTORY**

Historical survey of the Jewish people with emphasis on the social, religious and cultural aspects of Jewry and its contribution to world civilization.

Levine

Lectures and discussions; two semesters (Cross-listed as History 213)

323: THE TRACTARIANS

A course which deals with the part played by Pusey, Keble, Newman, Froude and R.I. Wilberforce in nineteenth century religious thought and some of the effects of their thinking on Ecumenism.

Tait

Lectures and discussions; two semesters.

325: RELIGIOUS CELEBRATION, HUMAN EXISTENCE, AND THE BOUNDARIES OF LIFE.

Festivals as moments of intersection and intense reciprocity between man and the sacred; as times of renewal and restoration; and as seasonal markers in the segmentation of the year's calendar. The fundamental question or the attitude of our culture towards the festival. With possibilities for field-work in Maritime folkways.

Lectures and discussions; two semesters (Cross-listed as Anthropology 325)

326: RELIGIONS OF INDIA

A survey to the religious traditions of India from the Indus Valley civilization to the present. This course will concentrate on the foundations and development of the Hindu, Buddhist, and Jain traditions in India and will consider their characteristic doctrines in some detail. Attention will also be given to the general methodological problems in the study of Oriental religions.

Rigelhof

Texts: A.L. Bashman – *The Wonder that Was India*
M. Hiriyanna – *The Essentials of Indian Philosophy*
Selected readings of Indian religious literature in translation.

No prerequisites

Lectures and discussions; two semesters (Cross-listed as Anthropology 326)

330: STUDIES IN EIGHTEENTH CENTURY SOCIAL AND RELIGIOUS THOUGHT

A study of the intellectual foundations of political and religious liberalism. This course concentrates on the social and religious philosophies of the Enlightenment and their influence on the contemporary Western civilization. Emphasis is placed upon reading, analyzing, and interpreting selected writings of the period.

Riegelhof

Texts: E. Cassirer, *The Philosophy of the Enlightenment*

Selected readings in Newton, Locke, Descartes, Voltaire, Diderot, Rousseau, Hume, Gibbon, Herder, Kant, Franklin, etc.

Prerequisites

Lectures and discussions; two semesters (Cross-listed as History 330)

*Not offered 1970-71

SOCIOLOGY

The Sociology Major consists of at least 5 courses from Sociology, and 2 from allied fields (Anthropology, Economics, History, Philosophy, Political Science, Psychology). The Major must include Introductory Sociology, Research Methods, Sociological Theory, and any two other sociologies – Prerequisite for all courses: Introductory Sociology (this can be waived with the permission of the instructor of the course involved.) Students who wish only ONE elective from sociology must take Introductory or Modern Sociology. All courses are full courses.

Lectures are three hours a week, two semesters. All texts to be announced.

121: INTRODUCTORY SOCIOLOGY

An introductory study of sociological perspectives, basic sociological concepts, man's interaction and organization in society, particularly in modern Canadian society, and the relationship between sociological theory and research; analysis of major social institutions (familial, religious, educational, economical, and political), and of major trends in society (urbanization, industrialization, bureaucratization, and the technological revolution).

200: RESEARCH METHODS

An examination of the basic methods and techniques employed at various stages in social research. Topics to be discussed include selecting

a research problem, research designs, methods of Data collection, content analysis and problems of measurement. Practical experience will be provided by means of a research project.

201: MASS COMMUNICATIONS

An analysis of the role of mass communications in modern society with particular emphasis on communication media: their structure and control, content, audience, and effects. Theories of mass communication and research data concerning their impact upon the individual in society.

202: POPULATION STUDIES (DEMOGRAPHY)

Determinants and consequences of population, size, growth, rates, composition, distribution, fertility, mortality, and immigration.

204: SOCIAL INSTITUTIONS

The development and changes of various institutions characteristic of modern societies; their origins, the contingencies to which they are subject, and their interrelations.

206: SOCIOLOGY OF PROFESSIONS

A sociological analysis of various professions such as: law, medicine, social work, teaching, nursing.

207: SOCIOLOGICAL THEORY

A critical examination of sociological theory with emphasis on difference and congruance in the writings of European and American scholars from Saint-Simon and Comte to Parsons and other contemporary theorists. Analysis of major sociological concepts to discover conceptual links between past usages and meanings and current trends and realities. Relationship of specific theories and their ideas to modern times.

208: SOCIAL STATISTICS

The course will address itself to the following problems: variables and graphs, frequency distributions, the mean, median, mode and other measures of central tendency. The standard deviation correlation theory, elementary probability theory, elementary sampling theory, multiple and partial correlation. The Chi-Square tests, etc. (This course is strongly recommended for students majoring in Sociology who intend to take graduate work.

302: SOCIAL PROBLEMS INVOLVING DISORGANIZATION AND DEVIANCE

A positive approach to establish proper 'perspectives' for adjustment of personal, family, industrial, religious, social and various other problems such as addictions, health, handicaps; vocational difficulties; emotional problems and suicide; industrial hazards, community problems, national problems, minority groups, war, population, prejudice and discrimination; family problems.

303: CRIMINOLOGY AND PENOLOGY

The philosophies of causation and prevention of crime; types of criminal behavior; organized crime and vice. Agencies of apprehension, trial, custody and after-care of prisoners. World trends in penological philosophy.

304: COMPARATIVE SOCIAL SYSTEMS

The course is designed to analyse systematically the major social organizations such as: economic structures, kinship structures, political structures, work structures, recreational structure, of a variety of differently organized social systems. The focus of the course is to compare sociologically the structure and functioning of large social systems. This is presented from a sociological perspective.

306: (EDUCATION 407) SOCIOLOGY OF EDUCATION

The institutional structure of education and the social roles of administrators, teachers, and students.

308: URBAN SOCIOLOGY

These aspects of urbanism and urbanization will be the main theme of the course: Human ecology, Urban structure and function, the Nature of the City, Urbanization as a process, the Basic Urban Institutions, Theories of Land Use and Growth, Community and Power Structure.

309: (PHILOSOPHY 402) PHILOSOPHY OF THE SOCIAL SCIENCES

313: SOCIOLOGY OF KINSHIP AND FAMILY

Sex roles and mate selection; husband-wife, parent-child, and peer relationships; extended kinship relationships; cross culture analysis of the family and changing family patterns. This is presented from a sociological perspective.

316: ORGANIZATIONAL THEORY AND BUREAUCRACY

An examination of the formal structure and bureaucratic organization of systems of modern society, deals with organizational theory in relation to occupational, professional, industrial, and work situations.

317: SOCIOLOGY OF RELIGION

Analysis of the nature of the sociological study of religion and of its theoretical development. The relationship between religion and society. Applications of the major theoretical concepts to the contemporary religious situation.

318: SOCIAL CHANGE

A study of the sources, patterns and consequences of social change. The views of classical and modern theorists will be evaluated in relation to patterns of change exhibited at the group, community, societal and cultural levels. This course will analyze modernization, industrialization, nationalism, and urbanization.

319: SOCIALIZATION

An analysis of the mechanisms by which individuals acquire from birth to death, the necessary attributes, values and skills for adequate functioning in society. A major concern of the course will be to analyze the processes which operate to cause both conformity and deviance within a particular culture and social system. The course will also include a sociological analysis of some of the main socializing agents in society such as: mass media, schools, family, reference groups, peer groups, etc.

320: ETHNIC AND MINORITY GROUPS

The concept of race and ethnicity; the Problems of Minority groups; ethnic differentiation and assimilation in Canadian and American Societies; Segregation, Inequality and Race Conflict. Selected Canadian and American Minorities. Selected World Minority Groups; Race and collective behaviour.

321: CANADIAN SOCIETY

An examination of the institutional framework and value basis of Canadian Society. Topics to be discussed include ethnic composition, class structure, economic institutions, political institutions and industrialization. A look will also be taken at the broad spectrum of social problems confronting Canada, both externally and internally.

322: POLITICAL SOCIOLOGY

The seminar will examine the connections between large structural changes in societies (notably industrialization and urbanization) and the appearance of collective violence, protest and revolution. The course will deal especially with European experience, although there will be plenty of opportunity to use materials from other parts of the world.

The chief historical issue taken up will be the extent to which countries undergoing urbanization and industrialization have experienced a common sequence of changes in the pattern of protest and collective violence. The chief theoretical issue will be relative adequacy of formulations of social change in terms of disruption and re-establishment of equilibrium, and formulations in terms of enduring conflicts of interest. The chief methodological issue will be the choice (a) case studies and natural histories, (b) comparative historical analyses, and (c) contemporary cross-section comparisons, as means of testing hypothetical relationships between large structural changes and the appearance of collective violence, protest and revolution.

324: SOCIAL STRATIFICATION

An analysis of the main features of social inequality in modern industrial societies. Analysis of the distribution of power and wealth, the existence of 'power elites' or 'governing classes', comparative community power structures, the institutionalisation of class conflict, problems of social mobility, the political expression of class and status groups, will all be dealt with. Also, a critical examination of varying sociological perspectives on stratification, both classical (Marx, Weber) and contemporary (Functionalist and Conflict theorists).

330: MODERN SOCIOLOGY

This course surveys the basic content areas of Sociology. Current sociological knowledge is related to major issues and problems of the day. The following content areas in Sociology are examined: Social Stratification, Social Central Social Conflict, Social Deviation. Social Institutions which comprise modern society are examined in terms of their structure and functioning; these include: Family, Religion, Education, Polity, Economy, Mass Communication, and Medicine.

SPANISH

Annabelle Edwards
Thomas Macho, S.J.

Lecturer
Associate Professor

100 (120): INTRODUCTION TO THE SPANISH LANGUAGE

Concentrated study of basic structures with particular emphasis on oral aspects.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three ½ hours (periods) a week.

200: ELEMENTARY SPANISH

Prerequisite: Spanish 102 or Spanish matriculation

Continuation of work begun in Spanish 100 (120) with particular emphasis on conversation and reading with understanding. Systematic building of vocabulary through study of Spanish civilization.

Text: To be announced.

Lectures: Three hours a week, two semesters.

Laboratory: Three ½ hours (periods) a week.

302: COMPLETION OF THE AUDIO-LINGUAL PROGRAM

Prerequisite: Spanish 200

Particular emphasis on conversation and writing using a style and vocabulary appropriate to the material or the occasion. Building of vocabulary through study of cultural materials and especially the anthropological concept of culture.

Texts: Audio Lingual Materials: Level Three

Lectures: Three hours a week, two semesters.

Laboratory: Three ½ hour (periods) a week.

303: SPANISH DRAMA

An interpretation of the Spanish Drama from the Middle Ages to our days, with particular emphasis on modern Spanish drama and its peculiar characteristics.

Text: To be announced.

Lectures: Three hours a week, two semesters.

304: THE GENERATION OF 1898

The Spanish culture before and after this generation. Particular emphasis on Baroja, Unamuno, and Ortega.

To be announced.

Hours: Three hours a week, two semesters.

DON QUIJOTE

Dates and his time.

Text: to be announced.

Hours: Two hours a week, and one hour seminar, two semesters.

PROSE AND STYLISTICS

Prerequisite: Sound knowledge of Spanish grammar.

Aim: Students learn to "feel" the most appropriate expression in particular circumstances. Class time involves mainly the correction of exercises prepared at home, concentrating on choice of words, imagery, shades of meaning etc.

Text: A good modern Spanish dictionary is essential, e.g. Cassell's or **Reintós**. **NO POCKET DICTIONARIES.**

Hours: One hour weekly. Spanish – English

One hour weekly. English – Spanish.

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LL.M., University of London;
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Duquette, George W.	Dartmouth, Nova Scotia
Emerson, George H.	Armdale, Nova Scotia
Flam, Harold Phillip	Halifax, Nova Scotia
Foley, Paul Joseph	Halifax, Nova Scotia
Franklin, Richard Esward	Burlington, Ontario
Gawdunyk, Paul Francis	Dartmouth, Nova Scotia
Goodman, Paul Gene	New Glasgow, Nova Scotia
Guy, Roger Warren	Halifax, Nova Scotia
Harnish, Ronald George	Halifax, Nova Scotia
Hartt, Andrew Douglas	Dartmouth, Nova Scotia
Herrera, Hamish P.	San Fernando, Trinidad
Hubley, Fred James	Bridgewater, Nova Scotia
Johnson, Stanley Gordon	Bedford, Nova Scotia
Johnston, James Barry	Charlottetown, P.E.I.
Kane, Douglas Gilbert	Halifax, Nova Scotia
Kaye, Robert Arthur	Truro, Nova Scotia
Landry, John C.	Armdale, Nova Scotia
Learmouth, James I.	Halifax, Nova Scotia
MacDonald, J. David	Halifax, Nova Scotia
MacInnis, Russell John	New Waterford, Nova Scotia
MacPhee, James A.	Cornwall, Ontario
Maingot, Christian Derek	Halifax, Nova Scotia
Marinas, Jose Luis Aranas	Caracus, Venezuela
Pelham, John Christopher	Halifax County, Nova Scotia
Peters, Wallace George	Saint John, New Brunswick
Ross, Gregory Allan	Halifax, Nova Scotia
Saxton, David Paul	Halifax, Nova Scotia
Shore, Gary	Glace Bay, Nova Scotia
Smart, Gilbert Bernard	Halifax, Nova Scotia
Spears, William Gordon	Halifax, Nova Scotia
Taylor, Arthur Jobe	Halifax, Nova Scotia
Tenderenda, Richard	Dartmouth, Nova Scotia
Turnbull, Brian Ronald	Dartmouth, Nova Scotia

Unsworth, George Allastair	Halifax, Nova Scotia
Walsh, Gregory Michael (Magna Cum Laude)	Halifax, Nova Scotia
White, Frederick Gerard	Cape Breton, Nova Scotia
Wienand, William J.	Kings County, New Brunswick
Woods, Michael Peter	Halifax, Nova Scotia

BACHELOR OF SCIENCE AND DIPLOMA IN ENGINEERING

Burke, D. Leslie	Halifax, Nova Scotia
Cham, Yau-Nam	Hong Kong
Drew, Barry J. (Magna Cum Laude)	Terence Bay, Nova Scotia
Haverstock, W. Gregory	Bedford, Nova Scotia
Henman, John Brancis	Waverley, Nova Scotia
Miller, Ross Willard	Halifax County, Nova Scotia
Ng, Wing Tak (Summa Cum Laude)	Wanchai, Hong Kong
Ternan, Gerald James	Rockingham, Nova Scotia
Ward, John Douglas	Halifax, Nova Scotia

DIPLOMA IN ENGINEERING

Belliveau, Victorr J.	Weymouth, Nova Scotia
Bossy, Rodney James	Montreal, P.Q.
Brooks, James Leo	Halifax, Nova Scotia
Cheung, Gilbert Siu Wong	Hong Kong
Compton, Donald Seymour	Dartmouth, Nova Scotia
Hamilton, Kenneth George	Halifax, Nova Scotia
Leahey, Edward William	Moncton, New Brunswick
MacDonald, David Leo	Armdale, Nova Scotia
Matthews, James Robert (with distinction)	Cooksville, Ontario
Navi, Faramarz	Tehran, Iran
Owen, John Henry	Dartmouth, Nova Scotia
Phelan, Patrick William	Rockingham, Nova Scotia
Upton, J. Gerard	Halifax, Nova Scotia

BACHELOR OF EDUCATION

Bowers, Neil Patrick, B.A.	Spryfield, Nova Scotia
Burke, Ozzie Gerard, B.A. (Cum Laude)	Halifax, Nova Scotia
Burt, Clement Joseph, B.A.	North Sydney, Nova Scotia
Burt, George James, B.A.	North Sydney, Nova Scotia
Callaghan, Joseph Harold, B.A.	Halifax, Nova Scotia
Campbell, Paul Ritchie, B.Comm.	Stellarton, Nova Scotia
Chaffey, Wilbur Joseph, B.E.	Halifax, Nova Scotia
Clarke, Daniel John, B.A.	Halifax, Nova Scotia
Cooper, Michael E. B.A.	Dartmouth, Nova Scotia

Copp, John Gary, B.Comm. Halifax, Nova Scotia
 Curry, Eric Morris, B.A. Dartmouth, Nova Scotia
 Davies, Robert Vincent, B.Comm. Armdale, Nova Scotia
 Dib, Boutres E., B.A. Halifax, Nova Scotia
 Dickinson, Louis H. B.A. Halifax, Nova Scotia
 Doherty, Edward Joseph, B.Comm. Halifax, Nova Scotia
 Doherty, Michael Francis, B.A. Halifax, Nova Scotia
 Doiron, Carol Ann, B.Sc. (Cum Laude) Dartmouth, Nova Scotia
 Donovan, Robert David, B.A. Halifax, Nova Scotia
 Dort, Donna Erania, B.A. Dartmouth, Nova Scotia
 Farwell, Chesley William, B.A. Halifax, Nova Scotia
 Feeney, Cyril Joseph, B.A. Dartmouth, Nova Scotia
 Fitzpatrick, Neil Francis, B.Sc. Windsor, Nova Scotia
 Foley, Thomas Joesph, B.Comm. Halifax, Nova Scotia
 Fraser, Edith C., B.A. Halifax, Nova Scotia
 Fulcher, Rex Ernest, B.A. Dartmouth, Nova Scotia
 Geary, Peter Richard, B.Comm. (Cum Laude) Sarnia, Ontario
 Giguere, Bernadette (Filotas), B.A. (Cum Laude) Halifax, Nova Scotia
 Godrej, Bomy M., B.A. Dartmouth, Nova Scotia
 Grandy, Brian Joseph, B.A. Halifax, Nova Scotia
 Hannington, Edith A., B.A. Halifax, Nova Scotia
 Harris, Donald Joseph, B.A. Halifax Nova Scotia
 Hollett, Edward Gordon, B.A. Dartmouth, Nova Scotia
 Holmø, Robert James, B.Sc. Halifax, Nova Scotia
 Horne, Arthur Sylvester, B.A. Halifax, Nova Scotia
 Horswill, Neil Deryk, B.A. Dartmouth, Nova Scotia
 Hughes, Ronald Adrian, B.Comm. Halifax, Nova Scotia
 Kazamel, J. Edward, B.Sc. Armdale, Nova Scotia
 Larkin, Ernest B., B.Comm. Dartmouth, Nova Scotia
 LaRocque, Roger Marc, B.A. Halifax, Nova Scotia
 LePage, Raymond Marc, B.A. Halifax, Nova Scotia
 Lewis, Maureen A., B.A. Waterloo, Quebec
 Lockman, Anne Marie, B.A. North Sydney, Nova Scotia
 McBrien, Stewart Patrick, B.A. Aylmer, Ontario
 Macdonald, Elizabeth Ann, B.A. (Cum Laude) . . Halifax, Nova Scotia
 MacDonald, Gordon Edward, B.A. Pictou, Nova Scotia
 MacDonald, John Alexander, B.A. Dartmouth, Nova Scotia
 MacDonald, John J., B.A. Halifax, Nova Scotia
 MacLean, Vincent James, B.A. Sydney, Nova Scotia
 Mahar, Gerald Joseph Anthony, B.Comm. Halifax, Nova Scotia
 Martin, Peter John, B.A. Halifax, Nova Scotia
 Maxwell, Nancy (Giroux), B.Sc. Halifax, Nova Scotia
 O'Neill, Margaret Mary, B.A. (Cum Laude) . . . Halifax, Nova Scotia
 Orr, David Owen, B.A. Halifax, Nova Scotia
 Pond, Thelma Agnes, B.A. Halifax, Nova Scotia

Puma, Paul Alfred, B.Comm.	Toronto, Ontario
Purcell, Dennis P., B.A.	Beaverbank, Nova Scotia
Regan, Frank M., B.A.	West Roxbury, Mass.
Romo, Deanna, B.A.	Halifax, Nova Scotia
Ryan, Bernard Michael, B.A.	Halifax, Nova Scotia
Scott, Joseph Vincent, B.A.	Halifax, Nova Scotia
Sheehan, Hazel MacLeod Hefler, B.A.	Dartmouth, Nova Scotia
Simms, Jeremy Joseph, B.A.	Halifax, Nova Scotia
Wamback, Arthur Louis, B.A. (Cum Laude) . . .	Yarmouth, Nova Scotia
Wamback, Arthur Louis, B.A. (Cum Laude) . . .	Yarmouth, Nova Scotia
White, Douglas Roy, B.A.	Souris, P.E.I.
Woods, Robert Warren, B.A.	Halifax, Nova Scotia

MASTER OF SOCIAL WORK

Bowers, Gregory, B.A.	Halifax, Nova Scotia
Cameron, Lionel, B.A.	Toronto, Ontario
Doiron, Peter, B.A.	Halifax, Nova Scotia
Gillespie, Mary, B.A.	Moncton, New Brunswick
La Rocque, John, B.A.	Halifax, Nova Scotia
Levasseur, Normand, B.A.	Edmunston, New Brunswick
MacDougall, Bernard, B.A.	Halifax, Nova Scotia
O'Neil, Maureen, B.A.	Halifax, Nova Scotia
Theriault, Etienne, B.A.	Ste. Anne, New Brunswick
Vickers, Paula, B.A.	Dartmouth, Nova Scotia

MASTER OF ARTS IN EDUCATION

MacLean, Richard H. B.A., B.Ed.	Vancouver, B.C.
Morse, Stuart L., B.Ed.	Fareham Hants, England
Wong, S.J., John-Baptist, A.B., M.A.	Halifax, Nova Scotia

MASTER OF ARTS IN HISTORY

MacLean, John Alton, B.Sc.	Halifax, Nova Scotia
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GRADUATES – OCTOBER 3, 1969

BACHELOR OF ARTS

Norman Helen Adams	Waverley, Nova Scotia
John Thompson Aikens	Halifax, Nova Scotia
Mary Eileen Anderson (Magna Cum Laude)	Halifax, Nova Scotia
Stephen William Anderson	Herring Cove, Nova Scotia
Francis Xavier Babin	Liverpool, Nova Scotia
James Arthur Barrett	Halifax, Nova Scotia
Gordon Philip Bartlett	Fairview, Nova Scotia
Simon Emerson Binder	Kitchener, Ontario
Brian Redvers Cainey	New Glasgow, Nova Scotia
Attilio Carlo Diliberatore	Halifax, Nova Scotia
Frederick Brien Dolan	Toronto, Ontario
Thomas Joseph Doucette	Halifax, Nova Scotia
David William Ferguson	Bridgewater, Nova Scotia
Ruth Elizabeth Fisher	Dartmouth, Nova Scotia
Ronald Christopher Gale	Cornerbrook, Newfoundland
Patrick Glendon Giddings	Montague, P.E.I.
Margaret Janice Gillen	Armdale, Nova Scotia
Grant Mansfield Josey	Lower Sackville, Nova Scotia
Wayne Louis Keddy	King's County, Nova Scotia
Gary Wayne Kelly	Halifax, Nova Scotia
John Malcolm Kendall	Halifax, Nova Scotia
Owen Michael Kennedy	St. John's, Newfoundland
William E. Laing	Halifax, Nova Scotia
Mary Marjorie Lynch	Halifax, Nova Scotia
Hardold Joseph McInroy	Hamilton, Ontario
John Grant MacIsaac	Dartmouth, Nova Scotia
Eugene Charles MacNeil	Fairview, Nova Scotia
Joseph Terrance Mahoney	Brookfield, Nova Scotia
Sister Pauline Martin, R.S.C.J.	Halifax, Nova Scotia
Joanna (Gilmor) Maxwell	Dartmouth, Nova Scotia
Robert Richard Nadeau	Saint John, New Brunswick
Paul Alexander Nickerson	Armdale, Nova Scotia
Mary K. Oliver	Dartmouth, Nova Scotia
Dennis Lawrence O'Leary	Halifax, Nova Scotia
Dorothy Ann Parker	North Wiltshire, P.E.I.
Rae Christine Parker	Halifax, Nova Scotia
Leonie Marie Poirier	Halifax, Nova Scotia
Scott William Pushie	Halifax, Nova Scotia
David A. Steves	Halifax, Nova Scotia
Douglas Richard Taylor	New Germany, Nova Scotia
Mary Evelyn Ternan	Halifax, Nova Scotia

Lawrence Allan Ward	Halifax, Nova Scotia
Helen Maude Watson	Halifax, Nova Scotia
Charles Weston Weatherby	Dartmouth, Nova Scotia
Joseph Edgar Weir	Moncton, New Brunswick
Peter Robert Whelly	Dartmouth, Nova Scotia
Sister Virginia White, R.S.C.J.	Halifax, Nova Scotia

BACHELOR OF SCIENCE

J. Stuart Balir	Dartmouth, Nova Scotia
Daniel William Burns	Halifax, Nova Scotia
John Patrick Carroll	Moncton, New Brunswick
Gordon Brian Fader	Halifax, Nova Scotia
Robert Alexander Fitzgerald	Dartmouth, Nova Scotia
Michael George Gomez	Port-of-Spain, Trinidad
Terence Michael Hayes	Burlington, Ontario
Ernest John Hill	Armdale, Nova Scotia
Patrick Donald Keating	Halifax, Nova Scotia
Lloyd Joseph LeBlanc	Digby County, Nova Scotia
John Colin MacLellan	Dartmouth, Nova Scotia
Faramarz Navi	Tehran, Iran
John Graham Rourke	Hamilton, Ontario
Lionel Robert Thorpe	New Ross, Nova Scotia
Garry F. Tremblay	Hamilton, Ontario
John David A. Vaughan	Windsor Junction, Nova Scotia

BACHELOR OF COMMERCE

Peter Guy Bowie	Aylmer, Quebec
Raymon Earl Butler	Boutilliers Point, Nova Scotia
William Joseph Chabassol	Halifax, Nova Scotia
John Garfield Charles	Ottawa, Ontario
Kenneth David Crawford	Sydney, Nova Scotia
John Richard Dalrymple	Dartmouth, Nova Scotia
Roger Douglas Gaudet	Amherst, Nova Scotia
Ronald Earl Hatcher	Sydney, Nova Scotia
James Thomas Hessian	Halifax, Nova Scotia
Frederick William MacDonald	Stellarton, Nova Scotia
Kevin Dennis McDonald	Dartmouth, Nova Scotia
Richard James McFadden	Halifax, Nova Scotia
Eugene Charles Marchand	Louisdale, Cape Breton
Valentine James Merchant	Sydney, Nova Scotia
Ian Arthur Milroy	Halifax, Nova Scotia
Bernard Leroy O'Brien	Halifax, Nova Scotia
J. Vincent Purcell	Purcell's Cove, Nova Scotia

Stewart Wayne A. Pye	Harrietsfield, Nova Scotia
William Louis Ryan	Purcell's Cove, Nova Scotia
Ernest William Shellnutt	Dartmouth, Nova Scotia
Wayne Arthur Simms	Halifax, Nova Scotia
Robert William Thrope	Halifax, Nova Scotia
M. Isabelle Wilcox	Halifax, Nova Scotia

DIPLOMA IN ENGINEERING

William Gerald Boutilier	Bedford, Nova Scotia
Desire Joseph Doucette	Weymouth, Nova Scotia
James Mason Doyle	St. Catherines, Ontario
Louis Mario Dursi	Bethel, Connecticut
Donald Keleher	Halifax, Nova Scotia
Darrell R. Spencer	Great Village, Nova Scotia

BACHELOR OF EDUCATION

William John Adams, B.A.	Dartmouth, Nova Scotia
Peter John Fader, B.A.	Halifax, Nova Scotia
David Joseph MacDonald, B.E. (Cum Laude)	Halifax, Nova Scotia
Vera Bernice (McCarthy) Stone, B.A.	Halifax, Nova Scotia
Suresh C. Paliwal, B.A., M.A.	Halifax, Nova Scotia

MASTER OF ARTS (EDUCATION)

William Joseph Gorman, B.A., B.Ed.	Halifax, Nova Scotia
Colleen Claire Williams, B.Sc., B.Ed.	Dartmouth, Nova Scotia

