# SAINT MARY'S UNIVERSITY <br> Halifax - Nova Scotia - Canada 



# CALENDAR <br> 1966-67 

General Calendar of

## SAINT MARY'S UNIVERSITY for the academic year 1966-67

## Under the Directian of the Jesuit qathers

May 1966
Halifax - Nova Scotia - Canada

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## ACADEMIC CALENDAR YEAR

| 1866-67 |  |
| :---: | :---: |
| $\begin{aligned} & \text { JULY } \\ & 14 \end{aligned}$ | Thursday............Last day for receiving applications for supplemental examinations. |
| AUGU |  |
| 1 | Monday.............. Last day for receiving "Confirmation of Application" cards. |
| 19 | Friday..................Last day for receiving applications for entrance examinations. |
| SEP | BER |
| 1 | Thursday............Entrance and supplemental examinations begin at 9:00 a.m. |
| 13-16 | Tues.-Fri..............Registration for Evening Division students. 7:00 p.m.-8:30 p.m. |
| 14 | Wednesday........Registration for all second year students. 9:00 a.m.-12:00 noon; 2:00 p.m.-5:00 p.m. |
| 15 | Thursday Registration for all third year students. 9:00 a.m.-12:00 noon. <br> Registration for all fourth year students. 2:00 p.m.-5:00 p.m. |
| 16 | Friday Registration for all first year students. 9:00 a.m.-12:00 noon; 2:00 p.m.-5:00 p.m. |
| 17 | Saturdäy. Registration for returning resident students. 9:00 a.m.-12:00 noon. <br> Orientation Programme for Freshmen and new students at 1:30 p.m. in the Auditorium. |
| 19 | Monday..............Instruction begins for all classes. <br> Late registration fee of $\$ 10.00$, with an additional fee of $\$ 3.00$ for each day after this date. |
| 21 | Wednesday........College Mission begins at 9:00 a.m. Mass of the Holy Spirit in the University Chapel at 3:40 p.m. |
| 22 | Thursday...........General meeting of the Faculty. |
| 28 | Wednesday........Final date for late registration. Inauguration of extracurricular activities. |
| 30 | Friday.................Last day for change of registration. General Assembly. |

OCTOBER
10 Monday..............Thanksgiving Day. No classes.
14 Friday...................Fall Convocation.
NOVEMBER
7-10 Mon.-Thurs.......Test week.
11 Friday..................Remembrance Day. No classes
18 Friday................... Solemn Requiem Mass for Most Reverend John T. McNally and deceased professors and alumni in the University Chapel at 12:00 noon.


## 1966

| JULY | AUGUST | SEPTEMBER |
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1967

| JANUARY | FEBRUARY | MARCH |
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| JULY | AUGUST | SEPTEMBER |
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[^1]
## GENERAL INFORMATION

HISTORY<br>ASSOCIATIONS<br>STATEMENT OF OBJECTIVES<br>STUDENT ORGANIZATIONS<br>SERVICES TRAINING

## HISTORY

Saint Mary's University had its beginnings as a small college founded in Halifax in 1802, under the inspiration of 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.

The young college faced many difficulties and had, on occasion, temporarily to suspend activities. Times of trouble, however, did not prevent it from producing its share of eminent men among whom were Archbishop McCarthy of Halifax; Sir Malachi Bowes Daly, Lieutenant-Governor of Nova Scotia; and Martin Griffin, Parliamentary Librarian for Canada.

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. Santamarians remember the name of Mr. Power with gratitude.

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.

## IGNATIUS COLLEGE; REGIS COLLEGE

In the early seventeenth century Jesuits came to the New World as missionaries. From the beginning they considered the work of education
and the establishment of schools in Canada of primary importance. The first Canadian houses for the training of Jesuit teachers were established in Montreal in 1848. In 1913, a further centre, St. Stanislaus Novitiate, was founded at Guelph, Ontario, for the training of members of the Order in English-speaking Canada; in 1930, the College of Christ the King was opened in Toronto for Philosophical and Theological studies.

By an agreement of January 2nd, 1957, both St. Stanislaus Novitiate and the College of Christ the King affiliated with Saint Mary's University, and were incorporated as 'Ignatius College' and 'Regis College' respectively. These Colleges, offering degree courses in the Humanities, Philosophy and Theology, provide young Jesuits with the basic preparation for their work in the educational institutions directed by the Order across Canada.

## 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

Saint Mary's University shares in the renowned Jesuit tradition of Catholic education. While it strives to keep faith with modern advances in knowledge, it considers that the resources of the past, especially the intangible ones, are vitally important to the education of the citizens for tomorrow.

## GENERAL AIMS

Saint Mary's firmly believes that education must entail the full balanced development of man's faculties. And this development centres chiefly on three ideals: KNOWLEDGE, CHARACTER, and LEADERSHIP.

By KNOWLEDGE, men are formed to whom the treasures of ancient and modern learning are unlocked; men are trained to think and assess values; to deal with fact and abstract thought; equipped to do the task of today; inspired with creative ideas for the task that will be theirs tomorrow.

By CHARACTER, men are formed with a capacity to act according to the values learned; who in their chosen careers act steadfastly in accordance with the highest standards of right living and gentlemanly conduct under the guidance of supernatural faith; men who so live the truth that they know that their conviction and courage will give hope and confidence to the world of tomorrow.

By LEADERSHIP, men are formed to take an enlightened place in society and meet the challenge of the times undaunted; professional men, men in the realm of communications, businessmen, scientists, engineers who in their profession will radiate principles of Faith and sound citizenship.

In the pursuit of these ideals, Saint Mary's requires of all students, whatever their vocational or professional interests, a large number of courses in the cultural areas of languages and history, philosophy and theology, mathematics and science. A broad education is considered as the one most worthy of the dignity of the human soul and the one best fitted to preserve a free society.

## SPECIFIC AIMS

But the University is conscious of the dignity of the individual. And in recognition of divergent inclinations and aptitudes leading to differing vocational choices, it offers a reasonable variety of course programmes leading to: Master of Arts (in Education), Master of Social Work, Bachelor of Education, Bachelor of Arts, Bachelor of Science, Bachelor of Commerce, Diploma in Engineering. Special provisions are made for students who intend to enter professional studies in Theology, Dentistry, Law, Medicine, etc.

## DISCIPLINE

It is assumed that students come to the University for a serious purpose, and that they will cheerfully conform to duly established customs, policies and rules. Regulations are intended to maintain favourable study conditions, to promote character development and to foster gentlemanly deportment. No young man of integrity and good breeding can misunderstand the purpose of each regulation-and no other kind of student is desired at the University. The faculty, therefore, reserves the right to censure or penalize students who are guilty of breaches of school discipline. It is the aim of the faculty to administer academic discipline so as to maintain the highest standards of integrity. The registration of the student is considered an acceptance of regulations.

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

## STUDENT ORGANIZATIONS

The extracurricular organizations listed below are officially recognized by the University. The activities of these societies, which aim at developing Christian Leadership, are directed by their respective officers with the co-operation and guidance of a member of the faculty.

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.

## RELIGIOUS ORGANIZATIONS

Sodality of the Blessed Virgin Mary. The purpose of the Sodality is to develop Catholic leadership and to form lay apostles under the protection of the Mother of God.

The Apostleship of Prayer and League of the Sacred Heart. The object of the Apostleship is to instill in students an apostolic outlook and a spirit of reparation for sin.

Saint John Berchman's Society. Its purpose is to train students for ecclesiastical functions and to develop in them appreciation of the liturgical life of the Church.

## GENERAL ORGANIZATIONS

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

Warld University Service of Canada. Through this national organization Saint Mary's participates in an international programme of material assistance, student exchange, and interchange of ideas throughout the world university community.

Canadian University Students. This organization strives to encourage better understanding among students across Canada, and to promote effectively student needs and represent their interests here and abroad. Membership is open to all students.

Tau-Gamma-Sigma Soolety 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 Soclety is restricted to Science and Pre-medical students. Its functions are, in general, similar to those of the Tau-GammaSigma 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 Soclety is open to all students. Its activities complement the training of the Public Speaking courses, and include Intercollegiate and Interfaculty Debates, Radio Debates and Forums, etc.

The Philosophers' Academy has for its purpose the promotion of philosophical study and of the investigation of philosophical problems by the presentation and discussion of philosophic topics at its regular meetings.

Saint Mary's University History Society provides à forum for the discussion of significant themes and problems in History, with emphasis on

Modern History. Members should have at least one university History course as background.

Saint Mary's University Dramatic Society presents each year a major dramatic production. It co-operates in the entertainment programmes offered by other student organizations.

The Saint Mary's Journal is the newspaper published by the students.
Saint Mary's University Athletic Association regulates the athletic activities of the students. All external and intramural contests, the conferring of athletic prizes, Letters and other awards, are under the direction of the executive of the Association.

The Young Liberals' Club and The Young Progressive-Conservative Club strive to arouse on the campus an informed interest in civic and government affairs through a programme of Model Parliaments, guest speakers, meetings, etc.

The Alumni Association. All former Saint Mary's students are eligible for membership. The Association, in addition to an annual social programme, has established an Annual Fund for university support. The Association nominates six members for appointment to the University's Board of Governors.

## SERVICES TRAINING

## REGULAR OFFICER TRAINING PLAN (ROTP)

Under the Regular Officer Training Plan successful applicants who have completed Senior Matriculation are enrolled in the Armed Force of their choice and are provided with College or University training.

On successful completion of academic and military training, cadets will be promoted to Commissioned Officer rank in the Regular Force. The privilege of release, if desired, will be granted after four years' Commissioned Officer service. Further details may be obtained from the Resident Staff Officer or from any recruiting office.

## UNIVERSITY NAVAL TRAINING DIVISION (UNTD)

The University Naval Training Divisions have been established to select and train suitable University Students for commissioned rank in all branches of the Royal Canadian Naval Reserve.

For details contact RCNR Recruiting Teams at the University during registration. For further information contact LCDR R. C. Marshall, C.D., RCNR, Philosophy Department.

## CANADIAN OFFICERS' TRAINING CORPS (СотС)

Saint Mary's University participates in the programme of academic and practical studies approved by the Department of National Defence for University undergraduates whereby students may qualify for a commission in the Canadian Army-Active Force, Reserve Force, or Supplementary Rederve.

For full information contact Major J. L. Ryan, E. D., Dean of Engineering.

## ROYAL CANADIAN AIR FORCE UNIVERSITY RESERVE TRAINING PLAN (URTP)

The purpose of the URTP is to select students for training in Officers' branches or professions allied to their studies and aptitudes. Where specialist training is required, students spend up to two summers at RCAF schools acquiring theoretical and practical knowledge which both supplements and complements their university studies, while a further year of practical experjence qualifies them as Junior Officers in their respective branches. The liaison officer at Saint Mary's University is Prof. A. T. Sabean, Chemistry Department.

# FINANCIAL INFORMATION 

FEES

BURSAR'S REGULATIONS

WITHDRAWAL AND REFUNDS

SCHOLARSHIPS AND BURSARIES

## FEES

As first term fees, students are required to make an initial payment of $\$ 350.00$ (resident students $\$ 700.00$ ) on or before the date of Fall registration.
Second term fees, payable on the dates of re-registration, January 3 rd-6th, are the balance of the student's account.

## TUITION FEES

These fees include all regular charges of the University for registration, tuition, laboratories, library, athletic programme, insurance, Students' Council. They apply to all students registered for three or more courses, up to the normal full-time load. A course over the normal load is $\$ 112.00$. Arts, Science, Commerce, Education, Engineering.............................. 600.00 Part-time and Evening Division: per course..........................................112.00
SPECIAL FEES
Late registration: $\$ 10.00$, and an additional $\$ 3.00$ per day after Septem-
ber 19th
Graduation: with Degree................................................................... \$15.00
with Diploma.............................................................. 10.00
in absentia (additional fee).......................................... 15.00
Supplemental or Special examination......................................................... 15.00
at an outside centre (additional fee)............................................. 5.00
Re-reading...................................................................................................... 5.00
Official transcript (after first copy)..................................................... 2.00

## STUDENTS' COUNCIL FEE

At the request of the student body, all full-time students are required to pay $\$ 13.00$ in support of student projects. This fee is administered by the Students' Council and is included in full-time Tuition Fees noted above.

## RESIDENCE FEES

The residence fee covers room rent and board for the academic year from the day before Fall registration to the day after the final examination, but excluding the Christmas recess. Outside this period and during the Christmas recess the charge for resident students is $\$ 4.00$ per day; no reduction of this rate is made for meals not taken at the University.
Room and board
$\$ 730.00$
Personal laundry, per term.......................................................................... 30.00

## BURSAR'S REGULATIONS

1. The University reserves the right to make changes without notice in its published schedule of tuition, residence, and other fees.
2. To confirm his acceptance, a resident student must forward a deposit of $\$ 25.00$ for room reservation before July 15 th. This is credited towards the student's residence account; it is not transferable to tuition and is not refundable unless the reservation is cancelled before August 20th.
3. No reduction in fees is granted to a student who enters the University after the date of opening.
4. Outside accounts will not be handled by the Bursar unless a deposit has been made to cover them.
5. The University will not advance money for the purchase of textbooks, stationery, travel or personal expenses.
6. Any damage done to University buildings, furniture or equipment will be charged to the offending students.
7. The University accepts no responsibility for injuries or loss of time incurred by students while taking part in student activities.
8. The premium for an accident insurance policy is included in the general academic fee paid by all full-time students. As residents of Nova Scotia are covered by the Province's Hospitalization Plan, the University's insurance plan supplements this coverage.

Students from outside Nova Scotia, not covered by hospitalization should provide for it either through their family or personally.
9. No student will be admitted to a semester examination or be promoted from one jear to another or recelve any report, degree, diploma, certificate, transcript, or testimonial whatsoever, untll his finandial accounts have been satisfactorily settled.
10. Drafts, cheques, money orders, etc., should be made payable at par to SAINT MARY'S UNIVERSITY and addressed to the Bursar, Saint Mary's University, Robie Street, Halifax, N. S.

## WITHDRAWAL AND REFUNDS

Students who withdraw from the University within two weeks of the opening of classes may receive a refund of all fees, less $\$ 25.00$ (service charge) and $\$ 4.00$ per day residence room and board.

When a student withdraws from the University, he will at once notify the Registrar. In all cases this notification will be taken as the of flal date of withdrawal from the University.

A proportionate refund of Board and Tuition 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 Bursar. Students withdrawing at the beginning of a month or at any time within the month are charged tuition for the whole month.

A student is accepted for residence on the understanding that he remain in residence for the whole session, or, in the case of withdrawal during the session, that he obtain a mutually satisfactory substitute resident. All students are charged room and board for the complete session and no refund is made on withdrawal unless or until an acceptable substitute has assumed obligation to the University for the balance of the session.

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

## SCHOLARSHIPS AND BURSARIES

In an effort to help needy and deserving students, Saint Mary's University annually awards many scholarships and bursaries. Entering students who wish to make application for scholarships must have an average of 75 per cent or over in their high school work. University students who apply for continuing scholarships must have a minimum average of 70 per cent. Bursaries are awarded on the basis of need for students of less than scholarship average but whose abilities give promise of solid and successful university work.

All scholarship applications must be made in writing to the Scholarship Officer of the University before June 30. Each scholarship is awarded on a yearly basis; students who wish a renewal must reapply by this date.

## SCHOLARSHIPS OPEN TO ALL STUDENTS

## Ashwood Scholarship: Valued at $\$ 200$.

Flinn Scholarships: Two, valued at $\$ 250$ each.
Mary C. Daley Scholarship: Valued at $\$ 100$ and awarded in alternate years.

Duncan W. Lynch Memorial Scholarship: Valued at $\$ 400$. Open annually to a Catholic student from Dartmouth.

John Glenister Memorial Scholarship: Valued at \$150. Open annually.

University Scholarships: 3 valued at $\$ 500$ each, 9 valued at $\$ 300$ each, and 8 valued at $\$ 100$ each.

## SCHOLARSHIPS OPEN TO ENTERING STUDENTS

Saint Mary's University Ladies' Auxillary Scholarship: Valued at $\$ 350$. Open to a student of Saint Patrick's High School, Halifax, Nova Scotia.

Brother Stirling Scholarship: Donated by Mr. John H. Dickey. Valued at $\$ 300$. Open annually.

University Soholarship: Valued at $\$ 550$. Awarded annually to a leading student of Saint Patrick's High School, Halifax, Nova Scotia.

University Scholarship: Valued at \$550. Awarded annually to a leading student in the graduating class of St. Peter's High School, Dartmouth, Nova Scotia.

University Seholarship: Valued at \$550. Awarded annually to a student of Saint Malachy's High School, Saint John, New Brunswick.

University Soholarship: Valued at $\$ 200$. Awarded annually to a Catholic student from Moncton, New Brunswick.

University Scholarship: Valued at $\$ 550$. Awarded annually to a student of the graduating class of Gonzaga High School, St. John's, Newioundland.

University Scholarship: Valued at \$550. Awarded annually to a student of the graduating class of Brother Rice High School, St. John's, Newfoundland.

University Seholarships: 4 valued at $\$ 500$.
University Scholarships: 11 valued at a minimum of $\$ 100$ each. One of these scholarships may be awarded to a student from each of the following counties: Annapolis, Colchester, Cumberland, Digby, Halifax, Hants, Kings, Lunenburg, Queens, Shelburne and Yarmouth.

## SCHOLARSHIPS OPEN TO SOPHOMORE, JUNIOR, AND SENIOR STUDENTS

Nova Scotia Light and Power Company Scholarship: Valued at $\$ 300$. Open to a Science or Engineering student.

James E. Donohue Memorial Scholarship: Valued at \$100. Open to students in Engineering and awarded in alternate years.

Nova Scotia Teachers' College: 1 valued at $\$ 300$. Open annually to graduates of the Nova Scotia Teachers' College.

University Scholarships: 4 valued at $\$ 500$ each, 6 valued at $\$ 300$ each, and 12 valued at $\$ 100$ each.

## BURSARIES

Rebeca Cohn Memorial Bursary: Valued at $\$ 100$. Open annually.

University Residence Bursaries: 15 valued at $\$ 100$ each. Open annually to residence students from parishes in the Archdiocese of Halifax.

University Bursaries: Nine additional university bursaries: 2 valued at $\$ 400$ each, 3 valued at $\$ 200$ each, and 4 valued at $\$ 100$ each.

## SCHOOL OF EDUCATION SCHOLARSEIPS

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.

## PARISH SCHOLARSEIPS

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.

Saint Agnes Parish Holy Name Soclety Scholarship: Valued at $\$ 100$.

Saint Joseph's Parish Scholarships: Two: one valued at \$100 and one at $\$ 150$.

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

Saint Peter's Parish Holy Name Soofety Scholarshipss Varying in number and value.

Saint Rose of Lima Parish Holy Name Society Scholarship: Valued at $\$ 100$.

Saint Stephen's Parish Seholarshipg: 4 valued at $\$ 100$ each.
Saint Stephen' Educational Association Scholarships: 3 valued at $\$ 100$ each.

## HOME AND SCHOOL SCHOLARSHIPS

The Home and School Association of various schools offer scholarships to deserving students. Students needing scholarship assistance should seek further information from their respective Home and School Association.

Bedford Home and School Association Scholarship: Valued at $\$ 100$.

Oxford Home and School Assoclation Scholarship: Valued at $\$ 50$.

Saint Thomas Aquinas Home and School Association Scholarship: Valued at $\$ 100$.

## ENIGHTS OF COLUMBUS SCHOLARSEIPS

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.

Knighte of Columbus Councll 3188 (Dartmouth) Scholarships8 Two valued at $\$ 200$ each.

Knights of Columbus Councll 1097 (Halifax) Scholarships: 7 valued at $\$ 150$ each.

Knights of Columbus Councll 2181 (Yarmonth) Scholarships: Valued at $\$ 200$.

## COLOMBO PLAN SCHOLARSHIPS

Each year the Colombo Plan offers a number of awards to deserving students from Colombo Plan countries.

## READERS AND LABORATORY ASSISTANTS

Each year a number of positions are open to Junior and Seaior students to act as course readers and assistants in the various laboratories. Remuneration is based on hours of employment during the term.

## LOANS

For those wishing to apply for government guaranteed financial assistance, the University cooperates fully with the Canada Student Loans Plan. Enquiries should be directed to the Registrar and/or the applicant's own banker.

The Alumni Association may extend occasional tuition loans to qualified applicants.

## ADMISSION INFORMATION

## APPLICATION

ADMISSION REQUIREMENTS

ADMISSION TO ADVANCED STANDING

## REGISTRATION

## APPLICATION

All correspondence concerning admissions should be addressed to the Registrar.

The application form is intended for new students, i.e., those not in attendance at Saint Mary's last year, and should be forwarded to the Registrar not later than August 15th. This application form must be accompanied by the following:

1. a testimonial of good character.
2. the official certificates received from the Department of Education or other source, stating the courses taken and the marks obtained in Grade XI and/or Grade XII. (These should be forwarded as soon as they become available at the Department of Education). Students who have attended another university should present a transcript of their marks and a testimonial of honourable dismissal. Failure to do this may result in expulsion.
3. a recent photograph. (Passport size).
4. a $\$ 5.00$ application fee if the applicant is not a resident of Canada.
5. where necessary, students should send a certificate stating that their mastery of English is such as to enable them to follow courses at miversity level.

All students must submit to the Registrar by August 1st the "Confirmation of Application" card. All students intending to reside at Saint Mary's are required to make a deposit of twenty-five dollars (\$25.00) for room reservation before July 15th. This amount is a deposit on first term residence fees. It will be returned if the University is unable to provide accommodation or if the reservation is cancelled before August 20th; otherwise it is not refundable or transferable to tuition.

## ADMISSION REQUIREMENTS

## JUNIOR MATRICULATION

To be admitted to university as an undergraduate a candidate must offer credit in seven matriculation subjects. The matriculation standing must be $50 \%$ in each subject with a general average of $60 \%$.

Candidates for university should during their High School keep in mind the requirements for admission and plan their courses accordingly. When in doubt concerning entrance qualifications, they should consult the University Registrar for evaluation of certificates and guidance.

The normal Junior Matriculation requirements for the various faculties and diploma courses are as follows:

| English | Algebra |
| :--- | :--- |
| A Language other than English | Geometry |

Three of: Chemistry, Physics, Biology, History, Economics, Latin or another language.

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

## ACCEPTABLE CERTIFICATES

Satisfactory marks in any of the subjects listed above will be accepted as credit toward the entrance requirements if such marks are granted by any of the following examining bodies.
(a) Certificates of the Common Examining Board of the Atlantic Provinces.
The pass mark on Grade XI is $50 \%$. Marks of $40 \%$ or over on Grade XII subjects may be counted as equivalent to passes in corresponding Grade XI subjects.
(b) High School or Accredited High School Certificates of the Province of New Brunswick.
(c) Equivalent Certificates issued by Education Departments of other Provinces.
(d) Second Year Certificates issued by Prince of Wales College, Charlottetown, Prince Edward Island.
(e) Equivalent Certificates of Matriculation Examinations taken"at Universities.
(f) Certificates similar to the above issued by University or other official examining bodies, when found adequate.

## ADMISSION TO ADVANCED STANDING

Because Senior Matriculation will be required for admission to Saint Mary's in September, 1967, the following regulations on advanced standing apply to the 1966-67 academic year only.
(1) A full year's credit (five courses) will be granted a student registering in Arts, Science, 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 (2 subjects)
iii. A language other than English
iv. (Two from Physics, Chemistry,
\& Biology, Geology, Geography,
v. History, Ancient and Modern languages.

This advanced standing makes graduation with a general degree possible in three years.
(2) Partial credit (fewer than five courses) may be granted on the basis of Senior Matriculation standing under the following conditions:
(i) These credits must be obtained before courses at the University are begun.
(ii) The student must have a mark of $60 \%$ in subjects other than the Sciences; a student must have a mark of $75 \%$ in Science subjects and give evidence of adequate Laboratory work.
(iii) Courses taken at other institutions or by Senior Matriculation after first registration at Saint Mary's University will not be credited by the University unless the student has obtained prior, written approval of the Dean of Faculty.
The certificates to which these provisions apply are the following:
(a) Grade XII Certificate of the Atlantic Provinces Common Examining Board;
(b) Third Year Certificate as issued by the Prince of Wales College, Prince Edward Island;
(c) Certificate of the first year of Memorial University College, Newfoundland;
(d) Equivalent Senior Matriculation Certificates issued by Departments of Education of other Provinces, or approved by the Committee on Admissions.

## 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 Bursar.

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.

## PROVISIONAL AND LATE REGISTRATION

If official documents are not received by the Registrar and approved by the Committee on Admissions two weeks before registration dates, provisional registration may be permitted. In case of such provisional registration the student is responsible for having all official entrance documents filed with the Registrar not later than two weeks after the regular registration date. A student is not officially registered in the University until provisional registration has been confirmed.

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

## CHANGE IN REGISTRATION AND DROPPING COURSES

Any change after the initial registration is permitted only with the written consent of the Dean of the Faculty concerned. For each course added, dropped, or changed, even with the consent of the Dean, a fee of $\$ 2.00$ is charged. In the case of a change initiated by University authorities no fee is charged.

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 authorized withdrawal. This will not be granted within two weeks preceding semester examinations. No term tuition refund will be granted on individual courses dropped after the second week in a semester. Should registration prove insufficient, the University reserves the right to cancel any listed course.

Without the approval of the Dean of the Faculty, no student may register for an advanced course in his third year until all required 100 number courses have been completed, or for an advanced course in his fourth year until all required 200 number courses have been completed.

## ACADEMIC INFORMATION

ATTENDANOE

EXAMINATIONS AND GRADES

EVENING DIVISION

## ADULT STUDY SERIES

THE ATLANTIC SUMMER SCHOOL FOR ADVANCED BUSINESS ADMINISTRATION

## ATTENDANCE

Attendance at all lectures, seminars and laboratory periods of any course in which a student is registered is mandatory. For Catholic students this requirement extends to religious functions.

A student whose absences from a course have been excessive will be debarred from tests and examinations in the course. Early in the session each instructor, after consultation with the Dean of Faculty, will inform his students what is considered "excessive".

Properly documented appeals based on legitimate absence from a course may be made to the Committee on Academic Standing. The appeal must be made no later than one week before the beginning of the test or examination period.

## EXAMINATIONS AND GRADES

In full courses there will be a final examination, a mid-year examination, and two tests, at assigned times (v. Academic Calendar for times). The first-term examination and test, together with assignments, etc., will be worth $40 \%$ of the total mark in each subject. However, assignments, etc., will not exceed $20 \%$ of this total. A student whose record of assignments in a course is considered unsatisfactory may be debarred from writing the examinations in that course.

The pass mark in each subject is $50 \%$.

## SUPPLEMENTAL AND SPECIAL EXAMINATIONS

Supplemental examinations cover the same work and texts as the immediately preceding regular examinations, and normally are of three hours duration.

A student who receives a mark between $40 \%$ and $50 \%$ is eligible to write a supplemental examination under the following conditions:
(1) The supplemental is written at the prescribed time the following September.
(2) No more than two subject marks between $40 \%$ and $50 \%$.
(3) No subject mark is below $40 \%$, or recorded as WF (Withdrawal Failure).
Supplemental examinations are not graded but recorded as pass (50\%) or failure.

No more than three full courses passed by supplemental examinations will be credited towards any degree or diploma.

Only one supplemental examination is permitted in any course. No course may be taken more than twice, except with the permission of the Committee on Academic Standing.

A special examination is an examination written outside the times assigned for regular and supplemental examinations. Permission to write a special examination is granted rarely and only for extraordinary reasons. Not more than two special examinations may be written in any one subject.

Applications for supplemental, special, or entrance examinations must be made no later than August 15th.

## FAILURES

A student who defaults a final examination is considered to have failed the course and a WF will be entered on his record. He will have to repeat the course.

If the student defaults an examination for medical reasons, a medical certificate covering the precise period of absence must be filed with the Registrar's Office before the end of the period of examinations.

A student who fails in more than $40 \%$ of his year's work at the regular examinations fails his year, and is not eligible for supplemental examinations.

A student who obtains a mark of less than $20 \%$ in any mid-year examination shall be required to withdraw from the course and will receive a WF on his record for his year's work. A student who withdraws from a course in the second semester after a first semester mark of less than $40 \%$ in that course, receives a WF entry on his record for the year's work.

If a student fails a course which involves both lectures and laboratory work, he must repeat both parts of the course, or an approved equivalent to be determined by the department concerned.

## ACADEMIC PROBATION

A person who is on academic probation is subject to dismissal at any time at the discretion of the Dean of Faculty.

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.

Any student who fails more than $40 \%$ of his work at either the midyear session or the end of the year is placed on academic probation. Any student who fails in two years of his work is automatically subject to dismissal.

## SPECIAL PROGRAMMES

## EVENING DIVISION

Courses leading to the degrees of Bachelor of Arts, Bachelor of Commerce, Bachelor of Science, Bachelor's and Master's degrees in Education are offered at the University in evening and summer sessions; they are open to men and women. Students entering these courses must have fulfilled the usual requirements for college entrance. They must maintain the same standards as students in the Day Division.

Evening Division courses begin in September and end with the May examinations. Summer sessions are held in the daytime for six weeks during July and August. All inquiries for further information should be addressed to the Registrar or to the Dean, Evening Division.

## 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 offers a five weeks' course for executives from midJune to mid-July. It is sponsored jointly by the following Universities: New Brunswick, Acadia, Mount Allison, King's College, Dalhousie, Saint Mary's, Nova Scotia Technical College, Saint Francis Xavier, Memorial, Saint Dunstan's and Prince of Wales College.

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.

Full 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

## COURSE NUMBERING SYSTEM

The present system of numbering was adopted in 1962. The 100 number signifies an introductory course normally taken in Freshman jear which may not be taken in Junior or Senior year. The 200 number signifies an introductory or continuing course normally taken in Sophomore jear. Such a course may not be taken in Junior or Senior year without the permission of the Dean of the Faculty and the department controlling the major concentration. The 300 number signifies advanced courses to be taken in Junior and Senior years. These are not normally open to Freshmen or Sophomores. The 400 number signifies Honours courses norally open only to Honours students. The 500 number signifies graduate courses.

## ARTS

The curriculum in Arts is planned to lay the foundation of a broad and liberal education and to encourage at the same time some specialization in a specific branch of the Humanities or Social Sciences. It fosters an appreciation of what is sound in philosophy and beautiful in literature, and seeks to familiarize the student with the great facts and movements of history.

## DEGREE OF BACHELOR OF ARTS

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

1. The completion of twenty-one courses subject to the regulations set forth in this Calendar.
2. The completion of the following prescribed courses:
(a) Three courses in Theology are required for Catholic students. Non-Catholic students may replace these courses with other courses approved by the Dean of their Faculty.
(b) Three courses in Philosophy.
(c) Two courses in English.
(d) Two courses in Latin and one course in a second foreiga language OR
(e) Three courses in one foreign language and a course in the Classics in Translation.
(f) One course in History.
(g) One course in Mathematics.
(h) One Natural Science course (Chemistry, Physics, Biology, Geology).
3. A major concentration of work to the amount of not fewer than five courses in one subject. Of these, a minimum of three courses must be advanced (300) courses. In addition, two supporting courses to be determined by the director of the concentration are required.

* At the end of Freshman year, students must decide their area of major concentration. Major concentrations for the Arts degree may be taken in Economics, English, French, History, Latin, Mathematics, Philosophy, Political Science, Sociology.

Six courses is the normal load in the Freshman year. No student may carry more than five courses in each of the following years except for excraordinary reasons and with the approval of the Dean of the Faculty concerned and the department of the major concentration.

The following is an outline of the normal sequence of courses. Courses designated as "elective" are courses in the field of major concentration and those approved as supporting courses.

| FRESHMAN | SOPHOMORE | JUNIOR | SENIOR |
| :--- | :--- | :--- | :--- |
| 1. Theology | 1. English | 1. Theology | 1. Theology |
| 2. English | 2. Philosophy | 2. Philosophy | 2. Philosophy |
| 3. Mathematics | 3. elective | 3. elective | 3. elective |
| 4. History | 4. Mod. Lang. | 4. elective | 4. elective |
| 5. Natural Science | 5. Latin | or Mod. | 5. elective |
| 6. Latin | or Classics | Lang. |  |
| or Mod. Lang. | in Trans. | 5. elective |  |

## ARTS AND COMMERCE COURSE

Provided courses in Accounting 201 and Economics 202 have been completed concurrently with the requirements for a Bachelor of Arts degree, the degree of Bachelor of Commerce may be obtained in one additional year. The additional year consists of five full courses which will normally be Accounting 302, Business Administration 302, Commercial Law 201, Economics 306, Economics 307. All programmes are subject to the approval of the Dean of Commerce.

## SCIENCE

The curriculum in Science is designed to give the student a solid grasp of basic technological, scientific knowledge and methods, without at the same time sacrificing his liberal and cultural education. Therefore, courses in philosophy, theology and the languages find their place in the Saint Mary's Science programme as a broadening complement to Mathematics and the Natural Sciences.

## DEGREE OF BACHELOR OF SCIENCE

The requirements for the degree of Bachelor of Science are as follows: 1. The completion of twenty-one courses subject to the regulations set forth in this Calendar.
2. The completion of the following prescribed courses:
(a) Two courses in Theology are required for Catholic students. Non-Catholic students may replace these courses with other courses approved by the Dean of their Faculty.
(b) Two courses in Philosophy.
(c) Two courses in English.
(d) Two courses in Mathematics.
(e) Two courses in a foreign language at the university level. French or German is recommended.
(f) A minimum of one course in Chemistry, one course in Physics, one course in Biology or Geology or Astronomy.
3. A major concentration to the amount of five to seven courses in one subject. Of these, a minimum of not fewer than three courses must be advanced (300) courses. In addition, two or three supporting courses to be determined by the director of the concentration are required.

At the end of Freshman year, students must decide their area of major concentration. Major concentrations for the Science degree may be taken in, Chemistry, Physics, Biology, Geology, Mathematics.

Six courses is the normal load in the Freshman year. No student may carry more than five courses in each of the following years except for extraordinary reasons and with the approval of the Dean of the Faculty and the department of the major concentration.

The following is an outline of the normal sequence of courses. Courses designated as "elective" are courses in the field of major concentration and those approved as supporting courses.

| FRESHMAN | SOPHOMORE | JUNIOR | SENIOR |
| :--- | :--- | :--- | :--- |
| 1. Theology | 1. English | 1. elective | 1. Theology |
| 2. English | 2. Philosophy | 2. Philosophy | 2. elective |
| 3. Mathematics 111 | 3. Mathematics | 3. elective | 3. elective |
|  | 202 |  |  |
| 4. Language | 4. Language | 4. elective | 4. elective |
| 5. Natural Science | 5. Natural | 5. elective | 5. elective |
| 6. Natural Science | Science |  |  |

## ENGINEERING AND SCIENCE COURSE

Students who have obtained the Diploma in Engineering may proceed, to the degree of Bachelor of Science on successful completion of a further year of study.

The programme of this additional (fourth) year will include: a course in Theology, Philosophy 303, Mathematics 307, 408, or 310 and two electives from Chemistry 304, 306, 410, 411, Physics 304, 305, 307.

Students who plan to continue to the B.Sc. degree after the Diploma in Engineering should elect Philosophy 201 in second year, and may be permitted to substitute Philosophy 302 for Theology in the third year.

## COMMERCE

The course leading to a degree of Bachelor of Commerce is offered to ents who desire the advantage of higher education and wish, at the mettime, to prepare themselves for a place in the business community, Ese blic service, and professional life. The aim of the faculty is to -ine the cultural aspects of education with the general principles of Irminess.

Esemption from-three years of in-service training and the primary, echomics, and intermediate examinations of the Institute of Chartered apoantants of Nova Scotia is available to Commerce graduates who intead to become Chartered Accountants.

To gain the exemptions a mark of at least $50 \%$ must be made in each of the courses, Accounting 303, 304, 305 and a minimum average of $60 \%$ for the three courses.

Exemptions are also granted by the Society of Industrial and Cost Becountants of Nova Scotia to Commerce graduates who register in the Industrial Accounting course sponsored by the Society.

## DEGREE OF BACHELOR OF COMMERCE

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

1. The completion of twenty-one courses subject to the regulations set forth in this Calendar.
2. The completion of the following prescribed courses:
(a) Three courses in Theology are required for Catholic students. Non-Catholic students may replace these courses with other courses approved by the Dean of their Faculty.
(b) Three courses in Philosophy.
(c) Two courses in English.
(d) One language course other than English at the university level French is recommended.
(e) Two courses in Accounting.
(f) Two courses in Economics.
(g) One course in Commercial Law.
(h) One course in Mathematics.
3. A major concentration to the amount of not fewer than five courses in one subject. Of these, a minimum of not fewer than three courses must be advanced (300) courses. In addition, two supporting courses to be determined by the director of the concentration are required.

At the end of Sophomore year, students must decide their area of major concentration. Major concentrations for the Commerce degree may be taken in Accounting, Business Administration, and Economics.

Six courses is the normal load in Freshman year. No student may carry more than five courses in each of the following years except for extraordinary reasons and with the approval of the Dean of Commerce and the department of the major concentration.

The following is an outline of the normal sequence of courses. Courses designated as "elective" are courses in the field of major concentration and those approved as supporing courses.

FRESHMAN

1. Theology
2. English
3. Mathematics
4. Language
5. elective
6. Economics 101 or History 102

SOPHOMORE

1. English
2. Philosophy
3. Accounting
4. Economics
5. Commercial Law

JUNIOR

1. Theology
2. Philosophy
3. Accounting
4. elective
5. elective SENIOR
6. Theology
7. Philosophy
8. elective
9. elective
10. elective

## Note:

1. Political Science 201 is recommended for first year elective.
2. The Junior and Senior year electives will depend upon the area of concentration or major work. All programmes are subject to the approval of the Dean of Commerce.

## ARTS AND COMMERCE COURSE

For details of this programme see under 'Arts'.

## ENGINEERING

For the Diploma in Engineering, the syllabus of studies is that preseribed by Nova Scotia Technical College for the first three years of its live-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 and Saint Francis Xavier University.

With a Diploma in Engineering a student may enter without examination any of the departments of Engineering at the Nova Scotia Technical College, Laval 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

The requirements for the Diploma in Engineering are as follows:

| FIRST YEAR | SECOND YEAR <br> Theology 102 | ThiRD YEAR <br> elective |
| :--- | :--- | :--- |
| Tnglish 101 | Mathematics 202 | Mathematics 303 |
| Mathematics 111 or 112 | Physics 202 | Engineering 301* |
| Physics 111 or 112 | Chemistry 202 | Engineering 302 |
| Chemistry 101 | Engineering 203* | Engineering 303* |
| Engineering 102 | elective | Engineering 304 |
| Engineering 104 | or Geology 201 | Engineering 305 |
|  | Chemistry 304 |  | Engineering 306*

## Note:

1. *indicates one semester courses. For details see 'Courses of Instruction'.
2. Non-Catholic students may replace requirements in Theology by elective courses in the Humanities or Social Sciences; at least two of these elected courses must be in the same subject.
3. Students who plan to enter Chemical Engineering at the Nova Scotia Technical College must substitute a course in organic chemistry (Chemistry 304) for the second year elective.
4. Students who plan to enter Civil, Mining, Metallurgical or Geological Engineering at the Nova Scotia Technical College must substitute Geology 201 for the second year elective.
5. Engineering 102 (Surveying) is required only of students proceeding to the Nova Scotia Technical College in Civil, Mining or Geological Engineering.
6. The selection of courses from the Humanities, where not specifically designated, is subject to the approval of the registration advisor.

## 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 these two years and who have been recommended by the Dean of Engineering are admitted without further examination to the Third Year in the School of Architecture, Nova Scotia Technical College, Halifax, where they complete the four-year professional phase of the curriculum. For the present, the course work for the two years in Architecture at Saint Mary's University is the same as that of the first two years in the Engineering Diploma Course.

## ENGINEERING AND SCIENCE

Students entering in September, 1966 who have complete Senior Matriculation (Nova Scotia Grade XII) or equivalent - cf. Page 37 are eligible for the General Bachelor of Science degree on completion of the Engineering Programme.

Other Engineering students are eligible for the Bachelor of Science degree if they fulfill the requirements noted on Page 46.

## PRE-PROFESSIONAL COURSES

Students who plan to enter the professions of theology, law, medicine, dentistry, etc., should see that their plan of studies includes courses prerequisite to entrance into the professional school of their choice. Calendars of professional schools may be consulted in the Office of the Registrar.

The sequence of pre-professional courses may, if necessary, replace the concentration or major requirements for the Bachelor's degree. Though
mot strictly required by some professional schools, Saint Mary's recommends complete matriculation in Arts, Science, or Commerce, and does not Euarantee that timetable will allow the completion of minimum pre-professional requirements in less than the full time required for the Bachelor's degree.

Pre-Theology. 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.

Pre-Law. Students planning to enter Law should do major concentration work, in Philosophy or Social Science. Their programme should include at least two courses in History, Economies, or Political Science.

Pre-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 eduoation including the atteinment of competence in English. It should include theoretical and laboretory courses in Physics, Biology, and Inorganic and Organic Chemister. At the present time the minimum requirement for admission to appreved medical schools is three years of college training for the average student, For most students, four years is recommended in order to provide an arportunity to gain a broad educational experience." (Statemest of tie American Medical Association, December, 1951).

Credits in the sciences must include Biology 101, 202; Chement 1 ITH 202, 304; Mathematics 101; Physics 111. Of the remaining eight enams (of a required minimum of fifteen courses), at least seven meat be $\begin{aligned} & = \\ & \text { sen }\end{aligned}$ in the Humanities; English 101, 202, Philosophy 201, are requed anesur At least two advanced courses must be included in the remainer ter courses of the minimum programme.

Pre-Dentistry. Pre-dental students must complete a miniz= $=0=0$ required courses which include the seven science courses listed shans = = = with English 101, and two electives from English 202, Frenci 102, History 102, Philosophy 201.

## HONOURS COURSES

Students of above-average ability are urged to make application at the time of registration for Sophomore year to follow an Honours programme and thus have their plan of studies controlled by the department concerned. At the invitation of the department of proposed Honours work, the student may then register for Honours at the beginning of Junior year. In order to begin an Honours programme the student must have a $65 \%$ average in his previous work. The Junior-Senior programme will be under the supervision of the department concerned. Prescribed summer readings are required of Honours students.

In general, the requirements for an Honours degree are as follows:

1. The fulfilment of all regulations for the Bachelor's degree.
2. The completion of not less than five courses prescribed by the department concerned.
3. The completion of an additional prescribed course in both Junior year and Senior year, thus making the total of twenty-three courses required for the Honours degree. These special additional courses may be given in any way the department decides.
4. The passing of a comprehensive examination (written and/or oral) in all work of the Honours field.
5. The attainment of not less than $70 \%$ in all courses in the Honours field and in the comprehensive examination.

Candidates for an Honours degree will normally be required to have spent four full-time academic years at Saint Mary's University.

# GRADUATE COURSES 

MASTER OF SOCIAL WORK<br>BACHELOR OF EDUCATION<br>MASTER OF ARTS<br>IN EDUCATION

## SOCIAL WORK

The Maritime School of Social Work was incorporated in 1941 to meet an urgent need for trained social workers in the Maritime Provinces. The school is recognized by the Canadian Association of Social Workers and its graduates are accepted for membership.

Saint Mary's University, along with the Universities of Acadia, Mount Allison, Saint Francis Xavier, and University of King's College, grants the Master of Social Work degree to students who meet the requirements of the University and who are recommended for the degree by the Maritime School of Social Work.

## DEGREE OF MASTERTOF SOCIAL WORE

The academic requirement for admission to candidacy for the degree of Master of Social Work is a Bachelor of Arts degree with high standing, or equivalent university training.

Students planning graduate work in Social Work should, where possible, emphasize Psychology or Sociology in their undergraduate courses. It would be desirable to complete a major and minor in these disciplines. Courses should also be taken in Political Science (Government of Canada), Economics, Philosophy and Biology.

In the discretion of the Admissions Committee of the Maritime School of Social Work, applicants may be required to undertake work in these fields as a prerequisite to admission.

Further information regarding courses, requirements for admission living costs and other matters, may be obtained by addressing: The Maritime School of Social Work, 6414 Coburg Road, Halifax, N. S.

## EDUCATION

## ADMISSION

For the degree of Bachelor of Education: Candidates must hold the degree of Bachelor of Arts, Science, or Commerce with second class Ponours or the equivalent. They must further satisfy the professional witude requirements of the Committee on Admissions.

The courses leading to the degree of Master of Arts are offered by School of Education to provide teachers with graduate study in the losophical and psychologicel foundations of the art of teaching and in' the particular fields of their own secondary teaching. Candidates theremre should hold the degree of Bachelor of Arts, Science or Commerce and the further degree of B.Ed. with second class honours or the equivalent. They must further satisfy the graduate requirements of the Committee Admissions.

## COURSES OF INSTRUCTION

| ACCOUNTING | GEOLOGY |
| :--- | :--- |
| ARCHAEOLOGY | GERMAN |
| AND ART | HISTORY |
| ASTRONOMY | HISTORY OF ART |
| BIOLOGY | LATIN |
| BUSINESS |  |
| ADMINISTRATION | MATHEMATICS |
| CHEMISTRY | PHILOSOPHY |
| CLASSICS | PHYSICS |
| IN TRANSLATION | POLITICAL SCIENCE |
| COMMERCIAL LAW | PSYCHOLOGY |
| ECONOMICS | SCIENCE |
| EDUCATION | SOCIOLOGY |
| ENGINEERING | SPANISH |
| ENGLISH |  |
| FRENCH | THEOLOGY |

## ACCOUNTING

## 201: Introductory Financial Accounting

A study of basic accounting concepts, and their application to bu-mes Tmasactions and financial statements. An introductory considerchen t and liability accounts, manufacturing operations, consolidated atitesents, and income tax matters.

TEXT: Principles of Accounting, Introductory-Finney and Miteldel (Prentice-Hall) Canadian 6th Edition
Ledures: Three hours a week, two semesters.

## 202: Intermediate Financial Accounting <br> Prerequisite: Accounting 201.

A further study of the basic concepts of Accounting 201 with speciel hererence to equity and asset accounts. Areas of attention include: the palysis and interpretation of financial statements, an introduction to cont cecounting, profit planning, and accounting aids to management.

TEXT: Principles of Accounting, Intermediate-Finney \& Byrd
(Prentice-Hall) Canadian 6th Edition
Zectures: Three hours a week, two semesters.
Full course. Doboratory: Two hours a week, two semesters.

## 308: Advanced Financial Accounting

Prerequisite: Accounting 201, 302.
Study of partnerships, consolidations, estates and other advanced aress. Further work in analysis of financial statements and accounting theory.

TEXT: Principles of Accounting, Advanced-Finney and Miller (Prentice-Hall)
REFERENCES: To be announced.
Lectures: Three hours a week, two semesters.

## 304: Cost and Managerial Accounting <br> Prerequisite: Accounting 201, 302.

The study of cost accounting principles and procedures with emphasis mpon managerial uses in the planning and control of operations and for special decisions.

TEXT: Cost Accounting-Matz, Curry, Frank (Southwestern) 3rd Edition
REFERENCES: To be announced.
Tactures: Three hours a week, two semesters.
Full course.

## 305: Auditing and Taxation

Prerequisite: Accounting 201, 302.
Auditing principles and procedures including verification and statement presentation of assets, liabilities, equity and profit and loss accounts. A study of the Income Tax Act and its application to corporate and individual taxpayers.

TEXTS: Basic Auditing Principles-Holmes (Irwin); Canadian Income Tax for Accountants-Leonard (CCH)
Leetures: Three hours a week, two semesters.
Full course.

## ARCHAEOLOGY AND ART

## 201: Early Civilization <br> Prerequisite: One university history course.

An outline of the prehistory and early history of the world and of the spread of civilization. Illustrated by slides and filmstrips.

TEXTS: What Happered in History-Childe (Penguin); Worla Prehistory-Clarke (Cambridge)
Lectures: Two hours a week, two semesters.
Full course.

## ASTRONOMY

## 301. Descriptive Astronomy

Prerequisite: Mathematics 111, Physics 111, Chemistry 101.
Mechanical aspects: the earth in motion, time, light, the telescope The solar system. Stellar astronomy. The systems; interstellar matter, Radio astronomy.

Note: Students who register for this course may not register for any other evening lectures as the laboratory periods may be on any evening of the week depending on the weather.

TEXTS: Astronomy-R. H. Baker (Van Nostrand) 7th Edition The Observer's Handbook, 1966 (R.A.S.C.)
Lectures: Two hours a week, two semesters.
Full cours
Laboratory: Two hours a week, two semesters.

## 802: Celestial Mechanics

Prerequisite: Astronomy 301, Mathematics 303.
This course may be counted as an advanced mathematics credit.
Fundamental principles; questions of central forces, potential an attraction. Problems of two bodies: determination of orbits, consideration of perturbations. The general integrals of the problem of $n$ bodies.

TEXT: An Introduction to Celestial Mechanics-F. R. Moulton (Ma millan)
Lectures: Three hours a week, two semesters.
Full cours

## BIOLOGY

101: Principles of General Biology
Class designed for science students. A study of the biological prit ciples governing the living organisms.

- TEXT: Biology: Its Principles and Implications-G. Hardin (Freeman \& Co.)
Lectures: Three hours a week, two semesters.
Full coura Laboratory: Three hours a week, two semesters.


## 202: Comparative Anatomy <br> Prerequisite: Biology 101.

A comparative study of the anatomy, embryology and evolution of different classes of vertebrates, covering the integumentary, skelet muscular, nervous, digestive, respiratory, circulatory, urinogenital, endocrine systems.

TEXT: The Verlebrate Body-Romer (Saunders)
Lectures: Two hours a week, two semesters.
Full coural
Laboratory: Three hours a week, two semesters.

## 244: Prinoiples of Plant Blology

Comparative study of diversity of plant structure and function; plant evolution in the light of solutions to specific biological problems. Introduction to microbiology.
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.
205: Principles of Animal Biology
Comparative study of diversity of animal structure and function; their behavior as individuals and in populations; their evolution.
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 301: Invertebrates

Prerequisite: Biology 101.
The study of the structure, life history, parastic relations to man and ecology of the main groups of land, fresh-water and marine invertebrates (with emphasis on the latter).

TEXT: To be announced.
Lectures: Two hours a week, two semesters. Full course.
Laboratory: Three hours a week, two semesters.

## 802: Oytology

Study of the microanatomy of plant and animal cells and tissues (ephithelium, connective, blood, bone, cartilage, muscle, nerve).

TEXT: Cell Biology-De Robertis, Nowinski, Saez (Saunders).
Lectures: Two hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 303: Biology of Fishes

A study of the embryology, anatomy, physiology and classification of the class fishes, covering the integumentary, skeletal, muscular, nervous, digestive, respiratory, circulatory, endocrine, excretory and reproductory systems.

In classification and geographical distribution, emphasis will be given to the marine fauna of the North Atlantic area and freshwater species of Nova Scotia.

TEXT: Ichthyology-Lagler, Bardach and Miller (Wiley)
Lectures: Two hours a week, two semesters. Full course. Laboratory: Three hours a week, two semesters.

## 304: Geneties and Embryology

Study of the principles of inheritance and of their application to plant and animal breeding. Embryology of the vertebrates with emphasis on the development of the chick.

TEXTS: Principles of Genetics-Sinnot, Dunn and Dobzhansky
(McGraw-Hill); Foundations of Embryology-Patten (McGraw-Hill) Leechures: Two hours a week, two semesters.

Full course. Laboratory: Three hours a week, two semesters.

## 305: Animal Physiology

An introduction to the chemistry and physics of life, with particular emphasis on energy relations.

TEXT: Physiology--Tuttle \& Schottelius (C. V. Mosby)
Lectures: Two hours a week, two semesters.
Full course. Laboratory: Three hours a week, two semesters.

## 806: Microbiology

Study of the principles of morphol ogy, physiology and taxonomy of viruses, bacteria, yeast, moulds and other microorganisms with reference to living organisms with emphasis in relation to man.

TEXT: Fundamentals of Microbiology-M. Frobisher
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## BUSINESS ADMINISTRATION

## 801: Management Principles and Organization Theory

A study of fundamental concepts of management; decision making; management planning, organizing, actuating and controlling; and the process of management in selected areas.

TEXT: Principles of Management-Terry (Irwin) 4th Edition
REFERENCES: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## 302: Business Finance

Prerequisite: Accounting 201, 302.
A study of the financial policies and structures of the principal forms of business organization. Matters relating to short, intermediate, and long-term financial decisions receive close attention.

TEXT: Basic Business Finance: Text and Cases-Hunt Williams and Donaldson (Irwin) Current Edition
Lectures: Three hours a week, two semesters.
Full course.

## 303: Cost and Managerial Accounting

Prerequisite: Accounting 201, 302.
Study of cost accounting principles and procedures with emphasis upon managerial uses in the planning and control of operations and for special decisions.

TEXT: Cost Accounting-Matz, Curry, Frank (Southwestern) 3rd Edition
Lectures: Three hours a week, two semesters.
Full course.

## 305: Principles of Marketing and Production

An introduction to marketing management by a study of the nature of marketing, an analysis of customer behavior and development of marketing policies and programs. An introduction to production management by a study of the management principles and certain of the techniques and methods of the production function.

TEXT: To be announced.
REFERENCES: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## 306: Human Relations and Business Policy

Prerequisite: Business Administration 301, 302 and either 303 or 305.
An introductory study of Organizational and Administrative Behaviour with emphasis upon the patterns and theory of human behaviour in industry. The Business Policy portion of this course is an attempt to develop an intergrated over-all management viewpoint by the use of the case method type of study.

TEXT: To be announced.
REFERENCES: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## CHEMISTRY

101: General Chemistry
An introduction to fundamental principles; valence, molecular, ionic theories, reaction rates, equilibrium, the periodic table, radio activity and other basic phenomena.

TEXT: General College Chemistry-C. W. Keenan, J. H. Wood (Harper \& Row) 3rd Edition 1966
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 202: Elementary Physical and Analytical Chemistry

Prerequisite: Chemistry 101.
Theory and techniques of qualitative and quantitative analysis. Ionic equilibria, pH , phase equilibria.

TEXT: Qualitative Elemental Analysis-E. H. Swift \& W. P. Schaeter
(W. H. Freeman \& Co.)

Lectures: Two hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.
304: Organic Chemistry
Prerequisite: Chemistry 101.
A comprehensive course of organic chemistry with accent on the acbepted modern theories related to aliphatic and aromatic compounds.

TEXT: Organic Chemistry-Brewster \& McEwan (Prentice-Hall) Senior Edition 1961
Lectures: Two hours a week, two semesters.
Full course. Laboratory: Three hours a week, two semesters.

## 306: Physical Chemistry

Prerequisite: Mathematics 202, Chemistry 202.
States of matter, properties of solutions, heat of reaction, entropy and free energy, kinetics.

TEXT: Physical Chemistry-Daniels \& Alberty (Wiley)
Leetures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 307: Advanced Quantitative Analysis

Prerequisite: Chemistry 202.
A comprehensive extension of Chemistry 202 with particular emphasis on advanced laboratory procedures used in inorganic analysis.

TEXT: Quantitative Chemistry-G. H. Brown \& E. M. Sallee (PrenticeHall)
Laboratory and Conferences:
Full course.
Six hours a week, two semesters.

## 808: Advanced Inorganic Chemistry

Periodic classification of the elements, and valence theory.
Lectures: Two hours a week, two semesters.
815: Theory of Physical Chemistry Measurements
Prerequisite: Chemistry 202.
A course intended primarily for pre-medical students.
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 410: Organic Qualitative Analysis

A course covering the methods of detection and identification of fundamental organic chemical groups and compounds.

TEXT: The Characterization of Organic Compounds-McElvain (Macmillan) Revised Edition
Laboratory and Conferences:
Six hours a week, two semesters.
Full course.

## 411: Chemical Thermodynamics

Prerequisite: Chemistry 306.
Energy, heat, entropy, free energy changes. Electro-chemistry.
TEXT: Physical Chemistry-Daniels \& Alberty (Wiley)
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Six hours a week, two semesters.

## 416: Advanced Organic Chemistry

Advanced concepts of organic chemistry, mechanisms, resonance theory, modern day theories and research study.

TEXTS: Reference Library
Lectures: Two hours a week, two semesters. Full course.

## 419: Kinetic Theory

Prerequisite: Chemistry 306.
Lectures: Two hours a week, two semesters. Full course.

## CLASSICS IN TRANSLATION

201:
The classical literature of Greece and Rome in translation. This course is required of all Arts students who are not taking Latin in their programme.

TEXT: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## COMMERCIAL LAW

201:
Meaning of law; contracts; special types of contracts; real property; mortgages; partnerships; corporation; credit transactions; statutes affecting business taxation.

TEXT: The Law and Business Administration in Canada-Smyth \& Soberman.
Lectures: Three hours a week, two semesters.
Full course.

## ECONOMICS

## 101: Economic History of Europe

The economic history of Europe from the Roman Empire to the present day. Manor system of the middle ages, guilds and mercantilism, laissez-faire, capitalism and industrial revolution; background of the 20 th century.

TEXTS: The Economic Development of Western Civilization-Clough (McGraw Hill); Rerum Novarum-Leo XIII; Quadragesimo AnnoPius XI; Mater et Magistra-John XXIII.
Lectures: Three hours a week, two semesters.

## 202: General Principles of Feonomics

This course is prerequisite to Economics 306, 307, 308, 309.
An introduction to economic analysis covering general price theory; the theory of the firm; production, cost, revenue and profit maximization; the theory of distribution; national income determination; national accounting; money; chartered and central banking; international economic relations; economic policy; monetary, fiscal, commercial; a comparison of free-market economy with the centrally planned economy; highlights of Canada's postwar economic experience.

TEXTS: Economics-R. G. Lipsey, P. O. Steiner (Harper \& Row, New York, 1966)
Lectures: Three hours a week, two semesters.
Full course.

## 803: Business and Economic Statistics

This course provides an introduction to the main statistical methods used in economics. The topics will include the collection, analysis and interpretation of statistical data; frequency distributions; measures of central tendency and dispersion; some probability theory; estimations of parameters and hypotheses testing; analysis of variance; regression and correlation analysis; time series; index numbers; a brief survey of Canadian economic statistics.
Students will be required to prepare exercises and attend several practice classes throughout the year.

TEXT: Modern Business Statistics-Freund \& Williams (PrenticeHall)
Lectures: Three hours a week, two semesters.
Full course.

## 304: Economic History of Canada and the United States

Economic aspects of American history from the Revolution to the New Deal.

Canadian economic history; fisheries, fur trade, timber trade; railways and confederation; the St. Lawrence canals. The strategy of development; wheat economy; new industrialism; St. Lawrence Seaway.

TEXTS: A merican Economic History-Faulkner (Harper); Canadian Economic History-W. T. Easterbrook \& Hugh G. J. Aitken (Macmillan).
Lectures: Three hours a week, two semesters.
Full course.

## 306: Economic Analysis

Prerequisite: Economics 202.
Scope and method of economic science; supply and demand analysis; principles of marginal analysis; the criteria of consumer's choice; equilibrium of the firm and industry; perfect and imperfect competition; production and distribution analysis; the theory of general equilibrium; introductory ideas to input-output analysis.

TEXTS: A Textbook of Economic Theory-A. W. Stonier \& D. C. Hague-(Longmans); The Theory of Price-G. J. Stigler-(Macmillan); Intermediate Economic Analysis-J. F. Due \& R. W. Clower
(Irwin). General reading will be recommended during the course. Lectures: Three hours a week, two semesters.

F'ull course.

## 307: Money, Banking, International Payment

Prerequisite: Economics 202.
Money, its standards, supply and value; inflation and foreign exchange; Canadian Banking System and other banking systems; public
finance; international monetary problems and their solutions; developments in international trade.

TEXTS: Canadian Money and Banking-J. W. O'Brien (McGrawHill) ; Capita Selecta-J. J. Vorstermans.
Lectures: Three hours a week, two semesters. Full course.

## 308: Business Cycle Theory

Prerequisite: Economics 202.
The nature of economic fluctuations; description and measurement of the business cycle; the tools of theoretical analysis; monetary aspects; international spread of the cycle; the problem of full employment; stabilization policies; economic fluctuations and economic growth.

TEXTS: Prosperity and Depression-Haberler (U. N.) ; Business Cycle-Hamberg (Macmillan); The Economics of J. M. KeynesD. Dillard (Prentice-Hall); Macroeconomic Theory-Ackley (Macmillan).
Lectures: Three hours a week, two semesters.
Full course.

## 310: Theory of Economic Development

The concept of economic dynamics; determinants of economic growth; consumption, savings and capital formation; capital-output ratio; the problem of balanced growth; a survey of recent experience in development planning.

TEXTS: The Theory of Economic Growth-Lewis; Economic Development: Principles, Problems, and Policies-Higgins; Macroeconomic Theory-Ackley.
Lectures: Three hours a week, two semesters. Full course.

## 309. Applied Economies

Prerequisite: Economics 202, 303, 306, 307.
Comparative economic systems; determinants of economic growth; underdeveloped countries and depressed areas within developed countries; concentration of industry and control of monopoly and restrictive practices; agricultural problems; economics of public utilities; distribution of national income.

TEXTS: The Canadian Economy, Selected Readings-Deutch et al (Macmillan) ; Stages of Economic Growth-Rostow (Cambridge) ; Economies of the World Today-Wilcox et al (Harcourt, Brace); Economic Principles and Public Issues-Oxenfelt (Holt). General reading will be recommended during the course.
Lectures: Three hours a week, two semesters. Full course.

## EDUCATION (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. "Full course.

## 402: Psychology of Education

A study of the nature, equipment, growth, development, evaluation and adjustment of the learner. Psychology 201 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.
Lectures: Three hours a week, two semesters.
Full course.

108: General and Special Methods of Teaching
The application of the elementary principles of Philosophy and Psy|chology of Education to the organization and presentation of subject matter in the classroom.
Lectures: Three hours a week, two semesters. F'ull course.

## 404: History of Education

A survey of our educational heritage aimed at assisting in the formation of sound educational principles and practices.
Lectures: Three hours a week, two semesters.
Full course.

## 405: Practice Teaching

One hundred hours of observation and practice teaching in the public school system.

## 407: Sociology of Education

The principles connecting the social, political and economic life of the community with the education of its young.
Lectures: Three hours a week, two semesters.
Full course.

## 408: Guidance

The theory and practices of educational, vocational and personal guidance in relation to the aims of education.
Lectures: Three hours a week, two semesters.
Full course.

## EDUCATION (M.A. Courses)

## Philosophy 511: The Metaphysies of Love

A seminar and lecture course on the cultural significance of the metaphysics of love.
Sessions: Three hours a week, two semesters. Full course.

## Philosophy 521: The Metaphysios of Thought

A seminar and lecture course in the development of epistemological theory.
Sessions: Three hours a week, two semesters.
Full course.

## Philosophy 531: Knowledge and Myth

A seminar on the relationship of myth to human knowledge at various stages of history, including primitive cultures, Greek and Roman society, and contemporary society.

TEXTS: Iliad, Odyssey-Homer; Selected Dialogues-Plato; Myth and
Myth Making-Murray; Greek Myths and Christian Mystery-Rahner Sessions: Three hours a week, two semesters. Full course.

## EngHsh 514: British Literature for Teachers

The cultural background and methodology for the teaching of high school English.
Sessions: Three hours a week, two semesters.
Full course.

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## English 534T:

A tutorial course to be adapted to the special requirements of candjdates specializing in literary research.

## History 510: Historical Research

A seminar and lecture course in the backgrounds required for the teaching of history. Course may be repeated if different historical periods are studied.
Sessions: Three hours a week, two semesters.
Full course.

## Paychology 512: Peychology of Communication

A seminar and lecture course in the psychological and epistemological obstacles to good communication.
Sessions: Three hours a week, two semesters.
Full course.
Paychology 582: Personality Development
A lecture and seminar course dealing with the main theories of personality and of personality development. Emphasis will be laid on the Dynamic interpretation of development, with particular reference to the school situation at all ages.
Sessions: Three hours a week, two semesters. Full course.

## Psychology 542: Motivation and Learning

A lecture and seminar course devoted to the study of the main theories of learning and of motivation, with particular reference to the classroom situation.
Sessions: Three hours a week, two semesters.
Full course.

## Paychology 552: Educational and Emotional Failure

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.
Full course.

## Sociology 528: Advanced Sociology of Education

This is a seminar and lecture course on various phases of the social context of education.
Sessions: Three hours a week, two semesters. Full course.

## Fducation 510: Graduate Research Seminar

A seminar in research techniques culminating in the presentation and defence of theses.
Sessions: One hour a week, two semesters. Full course.

## Comparative Education 516: Anglo-American Education

A lecture and seminar course on education in the United Kingdom, the 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.

Full course.

## Comparative Education 526: Continental Education

A lecture and seminar course on education in selected Continental European countries, including France, and selected societies with related
cational patterns, including French-speaking Canada, aimed at the tification and analysis of common and distinguishing properties, pracand problems.
ons: Three hours a week, two semesters. Full course.
Fineation 518: Eduentional Administration
A seminar and lecture course analyzing the executive requirements institutional direction.
rions: Three hours a week, two semesters. Full course.
Binueation 529: Eduoational Supervision
A seminar and lecture course in the requirements for the direction of pachers, courses, and student development in the public school.
Sessions: Three hours a week, two semesters.
Full course.

## ENGINEERING

## 102: Surveying

Care and use of instruments, surveying methods; measurement of distance, difference in elevation, direction angles. The elements of circular and vertical curves; applications of astronomy to engineering. Course eredit requires the successful completion of Survey Camp.

TEXT: Measurements for Engineering and Other Surveys-Smirnoff (Prentice-Hall)
Lectures: Three hours a week, two semesters.

## 103: Survey Camp

Prerequisite: Engineering 102.
Survey course applied to practical surveying problems; the orderly compilation and recording of survey data. Transit and tape surveys, curve layouts, plane table work, astronomical observations.

TEXTS: Elementary Surveying-Davis (McGraw-Hill); Surveyors'
Field Note Forms-Bardsley and Carlton (International Textbook Company)
Three weeks field course immediately following spring term.

## 104: Graphics

A course in drawing combining the basis of Engineering Drawing with the principles of Descriptive Geometry, the theory of projection, primary and secondary auxiliary views, sectional views, basic descriptive geometry including curved and warped surfaces, development and intersections, vector geometry, engineering graphics and charts and graphical integration.

TEXTS: Basic Graphics-Luzadder (Prentice-Hall); Problems for
Engineering Graphics-Luzadder.
Lectures and laboratory: Four hours a week, two semesters.
203: Graphio Statios
Prerequisite: Engineering 104, Mathematics 202 (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 (McGraw-Hill)
Lectures: Two hours a week, one semester.
Laboratory: Three hours a week, one semester.

## 301: Kinematics

Prerequisite: Engineering 104, Mathematics 111.
Displacement diagrams for linkages, instant centres, layout and drawing of some common mechanisms. Velocity determinations for linkages using instant centres and velocity vectors. Acceleration determination with the use of acceleration diagrams, coriolis acceleration. Solution of velocity problems by analytical methods.

TEXTS: Kinematics of Machines-Hinkle (Prentice-Hall); Problems
in Kinematics-Hinkle (Prentice-Hall).
Lectures: Two hours a week, one semester.
Laboratory: Three hours a week, one semester.

## 302: Applied Mechanics

Prerequisite: Mathematics 202, Mathematics 303 (concurrently).
Force, friction, determination of centroids and moments of inertia. Rectilinear, curvilinear and rotational motion of particles and solid bodies; work, energy and power, impulse of momentum.

TEXT: Mechanics for Engineers-Beer \& Johnson (McGraw-Hill). Lectures: Three hours a week, two semesters.

## 303: Fluld Mechanics

Prerequisite: Mathematics 202.
A study of fluid mechanics fundamentals based on an engineering science 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 an 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

Prerequisite: Mathematics 303 (may be taken concurrently).
An analytical treatment of stress-strain relationships for tension, compression and shear; torsion in shafts; shear and moment and stresses in beams; and statically indeterminate problems.

Physical properties of common materials used in structures and machines; their manufacture and fabrication. Testing machines and standard tests.

TEXT: Mechanics of Materials-Popov (Prentice-Hall).
Lectures: Three hours a week, two semesters.

## 305: Electric Circuits

Prerequisite: Mathematics 202, Physics 303 (concurrently).
Circuit elements; Ohm's Law, Kirchhoff's Laws, equilibrium equations (mesh and node); the principle of duality; 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-H. H. Skilling (Wiley)
REFERENCE: Networks, Lines and Fields-J. D. Ryder.
Lectures: Three hours a week, two semesters.

## 306: Engineering Thermodynamies

Prerequisite: Physics 202, Mathematics 202.

The development of the general energy equation and the First Law; Carnot Cycle and the development of the entropy concept, steam er plants, refrigeration and gas engine applications.
TEXT: To be announced.
ures: Three hours a week, one semester.
Deratory: Three hours a week, one semester.

## ENGLISH

Greain English:
Instruction is given in grammar, syntax, punctuation, etc. This marse is obligatory for students whose ranks in the English placement test re below average; no credit is given any university English course until this special course $1 s$ successfully passed.
-otures: Two hours a week, two semesters.
No course credit.

## 101:

Instruction in the complex functions of the elements of literary discourse by means of the critical examination, evaluation and comparison of a wide variety of appropriate short texts in prose and verse, with the aim of fostering proper reading habits and the formation of a clear, exact and Expressive prose style.
Eetures: Three hours a week, two semesters. Full course.
202:
A critical survey of English literature from the fourteenth to the twentieth centuries with emphasis upon the major literary forms.
Lectures: Three hours a week, two semesters.
Full course.

## 808: Middle English

Prerequisite: three university courses in English.
English language and literature from 1100 to 1500 , with emphasis on the poetry of Chaucer.

TEXTS: Chaucer-Robinson; The Age of Chaucer-Ford
Lectures: Three hours a week, two semesters. Full course.

304: Non-Dramatic Literature of the English Renaiseance 1500
1660

TEXT: To be announced.

Leetures: Three hours a week, two semesters. Full course.

## 305: Elizabethan and Jacobean Drama

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.
306: Restoration and Augustan Prose and Verse
TEXT: Eighteenth Century Poetry and Prose-Bredoold, McKillop \& Whitney.
Lectures: Three hours a week, two semesters. Full course.

## 307: Pre-Romantio and Romantic Literature

TEXT: English Romantic Poetry and Prose-Noyes
Lectures: Three hours a week, two semesters.
Full course.

## 308: The English Novel

Prerequisite: English 306.
A historical and critical survey of the English novel with emphasis upon the major nineteenth century novelists.

Students intending to take this course are strongly advised to consult the instructor for summer reading.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 309: Victorian Literature

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 310: Modern Poetry

Prerequisite: three university courses in English.
An examination of the development of modern poetry in English.
Attention will be given to foreign influence and relevant criticism.
TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 811: Literary Criticism

Prerequisite: three university courses in English.
A survey of the history of English criticism and instruction in the techniques of practical criticism.

TEXT: 'To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 312:

Advanced Tutorial in English. Members of the Department are prepared to offer, to properly qualified students, the opportunity to make a study of the works of a single author or special period where a sufficient introductory knowledge has already been obtained. Admission will be strictly limited.

## 313: Ultimate Concern in the Modern Novel

A lecture and seminar course, intended primarily for Honours students in English literature, the general purpose of which is the examination of a number of widely representative British, American and Continental novels of the late nineteenth and of the twentieth century in the light of Paul Tillich's definition of religion as "ultimate concern".

Novels examined will include works by Dostoyevsky, Tolstoy, Conrad, Joyce, Kafka, Lawrence, Bernanos, Kazantzakis, Faulkner, Lagerkvist, Malraux, Greene, Koestler, Camus and Richard Wright.

Students interested in taking this course are strongly advised to consult instructor for summer reading.
Lecturès and seminars: Three hours a week, two semesters. 'Full course.

## FRENCH

## 101: Elementary French

This course is intended for students who do not offer French as one of the subjects of their Junior Matriculation Diploma. After the successful completion of this course, students will be eligible for French 102. Credit will be given only on the completion of French 102.

TEXT: The New Fundamental French-Micks \& Longi (Oxford) Lectures: Four hours a week, two semesters.

The course comprises (a) intensive practice in spoken and written French; (b) an introduction to literary French through selected readings. Sendents are required to pass an oral and written examination at the end feach semester. Use of the language laboratory is a required part of the course.

TEXT: Oral and Written French-Stack (Oxford)
Letures: Three hours a week, two semesters.
Full course.
Lenguage Laboratory: Three half hours a week, two semesters.

## 202: Advanced Composition and Translation

Prerequisite: French 102.
A course in advanced composition and translation. A study is made of selected literary works. Students are required to pass an oral and written examination at the end of each semester.

TEXTS: French Review Grammar-Dondo \& Ernst (Holt); Prononciation Française-J. V. Pleasants; Nouvelles Fransaises-Hall (Odyssey)
Leetures: Three hours a week, two semesters.
Language Laboratory: Three half hours a week, two semesters.

## 303: Introduction to French Literature

Prerequisite: French 202.
The lectures are given in French. French 303 is obligatory for students who require only three courses in French. Students whose major concentration is in French should take French 303 and one other advanced course in French during their third year.

TEXTS: Lectures Classiques et Modernes-Hall et Michaud; Le Médecin Malgré Lui-Molière; Vol de Nuit- (Saint-Exupery).
Lectures: Three hours a week, two semesters.
Full course.
304: French Literature
From the Renaissance to the Revolution.
The lectures are given in French.
TEX'TS: Littérature Française Castex et Surer (Hachette) ; Le Bourgeois Gentilhomme-Molière; Le Cid-Corneille; Phèdre-Racine; Zadig-Voltaire.
Lectures: Three hours a week, two semesters. Full course.

## 305: French Literature

From the Romantics to the Present Day.
The lectures are given in French.
TEXTS: Littérature Française-Castex et Surer (Hachette); Trois Contes-Flaubert; Combray-Proust; La guerre de Troie n'aura pas lieu-Giraudoux; Antigone-Anouilh.
Lectures: Three hours a week, two semesters.
Full course.

## 306: French Canadian Literature

The lectures are given in French. General survey of French Canadian Literature with emphasis on the novel from 1930 to the present day.

TEXT: Littérature Canadienne Franģaise-Baillargeon (Fides)
Lectures: Three hours a week, two semesters.

## GEOLOGY

## 201: General Geology

The earth as a planet; igneous activity; weathering and erosion; sedimentation; earth movements; metamorphism; economic minerals. Historical Geology; the history of Geology. This course is designed for Engineering and Science students only. Participation in three or four day or weekend field excursions during the Fall is required.

TEXTS: Principles of Geology-Gilluly, Waters \& Woodford (Freeman) ; or Physical Geology-Leet \& Judson (Prentice-Hall) Lectures: Three hours a week, two semesters.

Full course. Laboratory or field work: Three hours a week, two semesters.

## 202: Mineralogy

Prerequisite: Geology 201.
Crystallography; atomic structure of crystals; morphological classification of crystals. Chemical mineralogy; determinative mineralogy; occurrence and associations of minerals.

TEXT: Mineralogy-Kraus, Hunt \& Ramsdell (MeGraw-Hill) 5th Edition.
REFERENCES: Mineralogy-Berry \& Mason (Freeman); Dana's Mineralogy-Palache et al (Wiley)
Lectures: Three hours a week, two semesters. Full course. Laboratory or field work: Three hours a week, two semesters.

## 303: Optical Mineralogy and Petrology

Prerequisite: Physics 111, Chemistry 101, Geology 202,
The optical properties of minerals. The description and interpretationfof igneous, sedimentary, and metamorphic rocks.

TEXTS: Optical Mineralogy-Kerr; Principles of Petrology-Tyrell
REFERENCE: Theoretical Petrology-Barth (Wiley)
Lectures: Three hours a week, two semesters. Full course. Laboratory: Three hours a week, two semesters.

## 304: Historical Geology

Prerequisite: Geology 201.
The history of the evolution of the North American continent as recorded by the sedimentary rocks, by the fossils they contain, and by the evolution of mountain ranges.

TEXT: The Geological Evolution of North America-Clark \& Stearn.
REFERENCES: Structural Geology of North America-Eardley; Geology and Economic Minerals of Canada-Econ. Geol. Series No. 1, Geological Survey of Canada.
Lectüres: Three hours a week, two semesters.
Full course. Laboratory: Three hours a week, two semesters.

## GERMAN

## 101: Elementary German

This is an intensive first college course for those beginning the study of German. It is not open to students offering German as a matriculation subject. The work comprises a study of the elements of grammar, composition and the reading of literature. Oral work will be stressed. Credit will be given on completion of German 102 or 103.

TEXTS: Elementary German-Meyer (Houghton Mifflin); Ein Brief-wechsel-Meyer (Houghton Mifflin); Aus Nah und Fern-Foltin (Houghton Mifflin)
Lectures: Four hours a week, two semesters. Full course.

## 102: Intermediate German (Arts)

Prerequisite: Matriculation German or German 101.
This course includes practice in spoken and written German, the reading of texts and the study of grammar and syntax. A student may not offer both German 102 and 103 for degree credit.

TEXTS: A Practical German Review Grammar-Cochran, 2nd Edition (Prentice-Hall); Three Stories-Zuckmayer (Oxford); Phonetikkurs, Deutsch-Kriesch (Goldsmith).
Lectures: Three hours a week, two semesters.
Full course.
Language Laboratory: Three periods a week, two semesters.

## 103: Intermediate German (Selence)

Prerequisite: Matriculation German or German 101.
This course will enable Science, Pre-medical, Pre-dental and Engineering students to use German scientific texts. It will not be counted towards an Arts degree.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 202: German Literary Prose

Prerequisite: German 102, German 103.
The aim of this course is to familiarize the students with the artistic qualities of German literary prose. Advanced grammar and syntax will be studied and short essays written. Emphasis will be laid on oral exercises.

TEXTS: Die Kunst der Prosa-Fleissner; Simpler German Coursefor
First Examinaticns-Russon (Longmans).
Lectures: Three hours a week, two semesters.
Full course.
801: Johann Wolfgang von Goethe
Prerequisite: German 202,
A study of the life and works of Goethe.
TEXT: To be announced.
Lectures: Three hours $a$ week, two semesters. Full course.
308: A Study of German Literature since Goethe
Prerequisite: German 202.
This course aims at introducing the students to the most important
German prose writers of the nineteenth and twentieth century.
TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## HISTORY

## 102: Modern Europe, the Formative Years, 1300-1815

A survey course designed primarily for Freshman students, covering the Renaissance, the Reformation, the Puritan Revolution and the French Revolution.

TEXT: The Emergence of Eurqpe, 1300-1815—Wolff
Lectures: Three hours a week, two semesters.

## 202: History of Canada

A survey 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.

TEXT: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## 203: The Twentieth Century

An 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.

TEXT: A History of Civilization, Vol. II-Brinton, Christopher \& Wolff.
Lectures: Three hours a week, two semesters. Full course.

## 204: 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.
Lectures: Three hours a week, two semesters. Full course.

## 206: Modern England

A survey course covering English political and social history from 1660 to the present day, with particular emphasis on the nineteenth and twentieth centuries.

TEXT: To be announced.
Lectures: Three hours a week, two semesters:
Full course.

## 300: Pre-classical Ancient History

Prerequisite: One university History course.
This course deals with the Birth of Civilization in the 'Mediterranean East'. It surveys the history of Egypt and Mesopotamia, starting with the invention of writing shortly before 3000 B.C., and ending with Alexander's victory over the Persians in 330 B.C.

Illustrated with slides and flmstrips.
TEXT: To be announced.
Lectures: Two hours a week, two semesters.
Full course.

## 301: History of Canada to 1867

French Canada with special reference to its culture, the personalities of the period, and the struggle with the British for possession of the region. The British attempts to incorporate British North America into the British colonial system.

TEXT: To be announced.
Lectures: Two hours a week, two semesters. Full course.
302: History of Canada, 1867 to present
Confederation, the development of Dominion status, Canada's role in the two World Wars and international affairs.

TEXT: To be announced.
Lectures: Two hours a week, two semesters. Full course.

## 303: Tudor and Stuart England

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

TEXT: The Tudors and the Stuarto-M. M. Reese.
Lectures: Two hours a week, two semesters.
Full course.

## 304: History of the United States to 1865

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

TEXT: To be announced.
Lectures: Two hours a week, two semesters. Full course.
305: History of the United States, 1865 to the present
A survey 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.

TEXT: To be announced.
Lectures: Two hours a week, two semesters. Full course.
806: Europe, 1648-1815
Europe from 1648 to 1815 with special emphasis on the history of France.

TEXT: A History of Europe, 1610-1751, 1715-1814-W. F. Reddaway Lectures: Two hours a week, two semesters.

F'ull course.

## 309: The Pre-Reformation Church

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.

TEXTS: A History of the Church, Vol. III: The Revolt against the Church: Aquinas to Luther-Hughes, Philip (Sheed and Ward, New York)
Lectures: Two hours a week, two semesters.
Full course.

## 811: Medieval England

Emphasis will be placed on constitutional developments and churchstate relations.

TEXTS: From Alfred to Henry III-Brooke; The Later Middle Ages -Holmes.
Lectures: Two hours a week, two semesters.
F'ull course.

## 812: Medieval Europe

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

TEXTS and READINGS: To be announced.
Lectures: Two hours a week, two semesters.
F'ull course.

## 313: Europe, 1815-1870

TEXT: A History of Europe, 1815-1939—Marriott. Lectures: Two hours a week, two semesters.

F'ull course.

## 814: Furope, 1870-1945

Emphasis on the diplomatic history of the period, and the background to World Wars I and II.

TEXT: A History of Europe-Marriott.
Lectures: Two hours a week, two semesters.
Full course.
401: The Puritan Revolution and the Cromwellian Protectorate
A seminar with particular emphasis on political and economic changes during the Puritan Revolution.
Lectures: Two hours a week, two semesters.
Full course.

## 402: The Era of the French Revolution

The background, course and impact of the French Revolution.
Lectures: Two hours a week, two semesters.
Full course.

## 403: German Foreign Poliey, 1890-1845

The history of Germany with special emphasis on German foreign policy.
Lectures: Two hours a week, two semesters. Full course.

## 404: British Foreign Policy, 1890-1945

Particular emphasis will be placed on Anglo-American relations, the Anglo-French Entente before 1914, and Anglo-German relations 1930-1945. Students will be expected to do considerable research in the diplomatic documents of the period.
Lectures: Two hours a week, two semesters. Full course.

## 405: United States Foreign Polioy, 1890-1845

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 up to 1941.
Lectures: Two hours a week, two semesters. Full course.

## 406: The Politics of the Peace Settlement 1919-1921

A seminar in which students will be expected to work closely in the documentary sources.
Lectures: Two hours a week, two semesters.
Full course.

## 408: Church and State through the Ages

An inter-departmental seminar made possible by the cooperation of the following departments: History, Philosophy, Political Science, and Theology.
Full course.

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.
Lectures: Two hours a week, two semesters.
Full course.

## HISTORY OF ART

## 801:

Prehistoric art; the art of Ancient Egypt, Crete; Classical Greek and Roman art; Early Christian Art; the Romanesque and Gothic era; the Art of Northern Europe; the Italian Renaissance.

TEXTS and READINGS: The Magic of Art-A. Czako (Pageant Press, New York); History of Art-H. W. Janson (Prentice-Hall); Histoire de l'art, Vol. I-II-P. Lavendan (Presses Universitaires de France, Paris);Geschichteder Kunst,Vol. I-II-R. Hamann (Munchen). Lectures: Three hours a week, two semesters.

Full course.

## 802:

Mannerism; the Age of the Baroque and Rococo; Flemish and Dutch art; Neo-classicism; Romanticism; Impressionism; Neo-impressionism; Expressionism; the art of the 20th century.

TEXTS and READINGS: As for History of Art 301.
Lectures: Three hours a week, two semesters.
Full course.

## LATIN

## 101:

A course in the essentials of Latin for students who have not completed matriculation Latin. A credit will be given on completion of Latin 102. TEXTS: Elementary Latin Grammar-Bryant \& Lake (Oxford U.P.) Latin Course for Schools, Part I-Wilding (Faber and Faber)
Latin Course for Schools, Part II-Wilding (Faber and Faber) to ch. 27 incl.
Lectures: Four hours a week, two semesters.
Full course.

## 102: First Year College Latin

Prerequisite: Matriculation Latin.
A thorough study of Latin syntax. Literature: Cicero's Pro Archia.
TEXTS: Latin Course for Schools, Part II (Faber and Faber) ch. 28
to end-Wilding; Latin Course for Schools, Part III (Faber and Faber) -Wilding.
Lectures: Three hours a week, two semesters. Full course.

## 202: Introduction to Latin Epic Poetry <br> Emphasis is placed on the exact rendering of the thought content into

 idiomatic English. Prose composition stresses the correct translation of idiomatic English into Latin.TEXTS: An Outline of Latin Prose Composition (Oxford U.P.) Parl I,
ch. 1-26-Vincent \& Mountford; The Aeneid (Bantam Books)-Virgil Lectures: Three hours a week, two semesters. Full course.

## 303: Horace

Prerequisite: Latin 202.
A critical analysis and appreciation of Horace's art and ideals. Prose composition.

TEXTS: Odes I, II, III: Satires, Horace-Bennett and Rolfe (Allyn and Bacon); Ars Poetica, Horace-Wilkins (Macmillan); Bradley's Arnold, Prose Composition, Ex. 29-53.
Lectures: Three hours a week, two semesters.
Full course.

## 304: Cicero's Rhetoric

An intensive study of Cicero's rhetoric. Selections from Catullus. Prose composition.

TEXTS: Pro Marcello; Pro Ligario, Cicero; Selections, Catullus; Bradley's Arnold, Prose Composition, Ex. 54-64.
Lectures: Three hours a week, two semesters. Full course. 405:

A tutorial course on Cicero (De Amicitia, De Senectute), Lucretius (DeRerum Natura). Roman history from its beginnings to the end of the Republic. Full course.

## 406 :

A tutorial course on Tacitus (Agricola), Livy (Books XXI and XXII) Juvenal (Satires). Roman history from Augustus to the beginning of the Middle Ages.

Full course.
407:
A tutorial course; directed readings and research; ecclesiastical Latin, or Latin philosophical sources.

Full course.

## MATHEMATICS

## 101: Arts and Commerce Mathematics

Algebra: Exponents and radicals; variation; progressions; imaginary quantities and cube roots of unity; permutation and combination; binomial theorem with positive integral index.

Trigonometry: Radian measure; trigonometrical identities; complementary and supplementary angles; properties and solution of triangles; simple problems on heights and distances.

Analytical geometry: Cartesian co-ordinates; equation to straight lines.

TEXTS: To be announced
Lectures: Three hours a week, two semesters.
Full course.

## 111: Algebra and Trigonometry

This course is a prerequisite for all subsequent Mathematics courses.
Operations with real numbers; concept of functions; inequalities; logarithms; exponential functions; trigonometric functions; complex numbers; theory of equations; systems of equations (matrices) binomial theorem and probability; sequences.

TEXT: Integrated Algebra and Trigonometry-Fisher, Ziebur (PrenticeHall)
Lectures: Five hours a week, two semesters.
Full course.

## 112: Introductory Calculus

Review of algebra and trigonometry, vectors, matrices of real and complex numbers, differentiation and integration of algebraic, logarithmic, exponential, and trignometric functions with one independent variablemethods of integration + analytical geometry.
Three lectures + two seminars a week, two semesters.
Full course.

## 202: Analytic Geometry

Prerequisite: Mathematics 111.
Curves and equations, straight line, circle, parabola, ellipse and hyperbola; parametric equations; polar coordinates; rotation and translation of axis; solid analytic geometry.

TEXT: Introduction to Analytic Geometry-Love and Rainville (Macmillan)

## Caleulus

Prerequisite: Mathematics 111.
Limits, derivatives; related rates, extreme values; integral calculus; methods of integration and applications; length of a curve, areas, volumes, centroids, etc.; different systems of coordinates, partial differentiation; iterated and multiple integration.

TEXT: Calculus-Sherwood and Taylor (Prentice-Hall)
Lectures: Six hours a week, first semester.
Three hours a week, second semester.
Full course.

## 213: Mathematical Statistics I

Prerequisite: Mathematics 202.
Definition; central tendency; dispersion; moments; regression; association and contingencies; simple, partial and multiple correlation; rank interclass and intra-class correlation; sample survey.

TEXTS: Mathematical Statistics-Weatherburn (Macmillan);
Theory of Statistics-Yule and Kendall (Griffin)
Lectures: Three hours a week, two semesters.
Full course.

## 303: Advanced Calculus

Prerequisite: Mathematics 202.
Differential equations, functions of two or more variables, vector analysis, infinite series, Taylor series, Fourier series, complex variable, double and triple integration.

TEXT: Advanced Calculus for Applications-F. B. Hildebrand (Prentice-Hall)
REFERENCE: Advanced Calculus-Kaplan (Addison-Wesley)
Lectures: Three hours a week, two semesters. Full course.

## 304: Boolean Algebra and Its Applications

Prerequisite: Mathematics 202.
The algebra of sets, symbolic logic and the algebra of propositions, switching algebra, relay circuits and control problems, circuits for arithmetic computation, introduction to probability of finite sample spaces.

TEXT: Boolean Algebra and its Applications-J. E. Whitesitt (Addi-son-Wesley)
REFERENCE: Applied Boolean Algebra-F. E. Hohn (Macmillan). Lectures: Three hours a week, two semesters. Full course.

## 305: Thegry of a Complex Variable

Prerequisite: Mathematics 202, 307.
Complex plane; fraction, powers, and roots; analytic functions, power series, some elementary functions, complex integration, representation theorems, the calculus of residues.

TEXT: Analytic Function Theory, Vol. I-E. Hille (Ginn \& Co.)
REFERENCE: Introduction to Complex Variable \& Applications-
R. V. Churchill (McGraw-Hill)

Lectures: Three hours a week, two semesters. Full course.

Prerequisite: Mathematics 202.
Computation of probability by direct enumeration of cases, theorems of total and compound probability, repeated trials, probabilities of hypotheses and Bayes' theorem, Bernoulii's theorem, approximate evaluation of probabilities in Bernoullian case, mathematical expectation, law of large numbers, probabilities in continuum, concept of distribution, limit theorems normal distribution in two dimensions, Euler's summation formula, Stering's formula.

TEXTS: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 307: Modern Algebra

Prerequisite: Mathematics 202.
Sets, rings, integral domains, fields, polynomials, groups, vector spaces, Boolean algebra.

TEXT: Introduction to Modern Algebra-N. H. McCoy (Allyn \& Bacon)
REFERENCE:Elements of Abstract Algebra-J. T. Moore (Macmillan) Lectures: Three hours a week, two semesters.

Full course.

## 310: Ordinary and Partial Differential Equations <br> Prerequisite: Mathematics 202. <br> Separation of variables; homogeneous and linear differential equations; bigher order linear differential equations with constant coefficients; Laplace transformation, differential equations of higher order and degree, partial differential equations, Fourier series, applications. <br> TEXT: Elementary Differential Equations-Rainville (Macmillan) <br> REFERENCE: Applied Differential Equations-M. R. Spigel (Pren-tice-Hall) <br> Lectures: Three hours a week, two semesters. <br> Full course.

## 312: Theory of Matrices

Prerequisite: Matbematics 202.
Introductory concepts, vector spaces, equivalence, rank, and inverses, determinants, congruence, and hermitian congruence, polynomial over a field, matrices with polynomial elements, similarity, characteristicroota, linear transformation.

TEXT: Theory of Matrices--S. Perlis (Addison-Wesley)
REFERENCE: Matrices and Linear Transformations - Finkbeiner (Freeman)
Lectures: Three hours a week, two semesters.
Full course.

## 314: Mathematieal Statisties II

Prerequisite: Mathematics 213.
Probability, theory of distributions; Fisher's Z-transformation elementary analysis of variance.

TEXTS: Advanced Statistics, Vol. 1 -Stuart and Kendall (Griffin): Industrial Experimentation-K. A. Brownley (H. M. S. Stationery) Lectures: Three hours a week, two semesters.

Full course.

## 405: Topology

Prerequisite: Mathematics 202, 307.
Introductory set theory, the real line, topological spaces, metric spaces. ares and curves, partionable spaces, the axiom of choice.

TEXT: To be announced.
Lectures: Three hours a week, two semesters.
Full coursa

## 408: Functions of a Real Variable

The continuous real variable; Dedkind's theorem; Weierstrass theorem; rational functions; loci in space; complex numbers; limits of a function; the infinite in analysis.

TEXT: Mathematical Analysis, Vol. I-Goursat-Hedrick (Ginn) Lectures: Three hours a week, two semesters. Full course.

## PHILOSOPHY

## 201: Introduction to Philosophy

An historical introduction to basic problems in the philosophy of nature, ethics and the philosophy of man designed to familiarize students with statements on these problems in Greek, mediaeval and modern philosophy.

TEXTS: Selected source readings in Greek, mediaeval and modern philosophy.
Lectures: Two hours a week, two semesters. Full course. Seminar: One hour every second week.

## 302: Philosophy of Being and God: Epistemology

An historical introduction to basic problems in metaphysics and the philosophical investigation of God, emphasizing the mediaeval Christian philosophical synthesis and its contemporary expression and an introduction to basic problems in epistemology in the context of modern and contemporary philosophy.

TEXTS: Selected readings from mediaeval, modern and contemporary philosophy.
Lectures: Two hours a week, two semesters. Full course. Seminar: One hour every second week.

## 303: Moral Philosophy

An introduction to moral philosophy designed to acquaint students with historical expressions of basic ethical problems and, in particular, with modern and contemporary formulations of ethical theories.

TEXTS: Selected readings in moral philosophy, particularly contemporary sources.
Lectures: Two hours a week, two semesters. Full course. Seminar: One hour every second weck.

## 306: Epistemology

Prerequisite: Philosophy 201.
An investigation of the problem of knowledge through a study of the epistemological thought of Bernard Lonergan.

REFERENCE: Insight-Lonergan.
Lectures: Two hours a week, two semesters.
Full course. Seminar: One hour everu second week.

## 408: Phenomenology

Prerequisite: Philosophy 201 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, 2Vols.-Spiegelberg. Lectures: Three hours a week, two semesters, 2 hours seminar; 1 hour tutorial

Full course.

## 409: The Philosophy of History

Prerequisite: Philosophy 201 and a second course in Philosophy.
A critical study of major theories and conceptions of history, and consideration of the nature and value of history, its principles of explanation, selection and evidence.

TEXTS: Significant selections and works from Augustine to the present.
Lecture and seminar course. Full course.

## 410: The Metaphysics of Love

Prerequisite: Philosophy 201, Philosophy 302.
A lecture and seminar course on the cultural significance of the metaphysics of love.

## 411: The Christian Philosophies of Augustine and Aquinas <br> Prerequisite: Philosophy 201. <br> A lecture and seminar course to explore the concept of philosophy in

 St. Augustine and St. Thomas Aquinas, and their views on the relation between faith and reason.TEXTS: Selected readings in Augustine and Aquinas.
Full course.

## 412: Knowledge and Myth

A seminar on the relationship of myth to human knowledge at various stages of history, including primitive cultures, Greek and Roman society, and contemporary society.

TEXTS: Iliad, Odyssey-Homer; Selected Dialogues-Plato; Myth and Myth Making-Murray; Greek Myths and Christian MysteryRahner.
Lectures: Three hours a week, two semesters. Full course.
413: The Existentialist Movement in Contemporary Philosophy
Prerequisite: Philosophy 201 and a second course in Philosophy.
A lecture and seminar course to examine the origins, expressions and significance of existentialism.

TEXTS: Readings in Kierkegaard, Nietzsche, Jaspers, Heidegger, Marcel, Sartre, Camus.

Full course.

## 414: Freedom in St. Augustine

Prerequisite: Philosophy 201 and one other course in Philosophy.
A lecture and seminar course to examine the Augustinian doctrine of man as the image of God and its implications for his concept of freedom.

REFERENCES: Selected works and readings of Augustine.
Full course.

## 415: Contemporary Analytic Philosophy

Pretequisite: Philosophy 201.
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 analyst school.
Full course.

## 416: Advanced Ethical Theory

A lecture and seminar course to examine certain fundamental problems of contemporary ethics. Attention will be concentrated on recent problems in metaethics in the writings of Hampshire, Toulmin, Hare and NowellSmith, and on existential ethics in the writings of Sartre.
Lectures: Three hours a week, two semesters.
Full course.

## PHYSICS

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 Physios

Units, vectors, moment of force, Newton's laws, work, energy, impulse and momentum, elasticity, hydrostatics, surface tension, and viscosity. Temperature expansion, transfer of heat, wave motion, vibrating bodies, the nature and propagation of light, reflection and refraction at plane surfaces, lenses and lens aberrations, optical instruments, illumination, colour, interference and diffraction, Coulomb's Law, electric field, D-C current, magnetic field, and atomic physics.

TEXT: Physics Principles-Ballard, Slack and Hausmann (Van Nostrand)
Lectures: Three hours a week, two semesters. F'ull course. Laboratory: Three hours a week, two semesters.

## 112: General Physics

A knowledge of Grade XII Physics is necessary, and it will be essential for students to be taking an introductory course in calculus concurrently. Topics include mechanics, heat, sound, light and electricity.

TEXT: Physics-Slack and Hausmann (Van Nostrand)
Lectures: Three hours a week, two semesters.
Full course.
Laboratory: Three hours a week, two semesters.

## 202: Heat, Light, Electricity and Nuclear Physies.

Prerequisite: Physics 111, Mathematics 111, Mathematics 202 (may be taken concurrently).

Heat measurement, transfer of heat, thermal properties of matter, the laws of thermodynamics, molecular properties of matter, entropy. Reflection and refraction of plane surfaces, and spherical surfaces, aberration of lenses, optical instruments, interference, diffraction, polarization, and photometry. Electric charge, Coulomb's Law, Gauss's Law, electric field, potential, current, resistance, resistivity, Kirchhofi's rules, Wheatstone bridge, capacitance, and inductance; the magnetic field, D.C. meters, Xrays, photoelectric effect, natural radioactivity, artificial nuclear disintegration.

TEXT: University Physics-Sears, F. W. and Zemansky, N. W.
Lectures: Three hours a week, two semesters. Full course. Laboratory: Three hours a week, two semesters.

## 303: Flectricity and Magnetism.

Prerequisite: Physics 202, Mathematics 202, Mathematics 303 (concurrently).

The electric potential, Poisson's and Laplace's equations, Electron volt, Capacitance, Dielectrics, the magnetic field E.M.F. of chemical cell, thermal e.m.f., induced electromotive force, inductance, magnetism in matter, LCR-circuits, resonance, filter circuits, power in A.C.circuits, A.C. instruments, transformer, generators, motors, Maxwell's equations, and Electromagnetic waves, Conduction of Electricity in gases.

TEXT: Electricity \& Magnetism-A. F. Kip (McGraw-Hill)
Lectures: Three hours a week, two semesters.
Full course. Laboratory: Three hours a week, two semesters.

## 104: Theoretical Mechanics

Prerequisite: Physics 202, Mathematics 303.
Unit vectors, sum of vectors, difference of vectors, scalar products of vectors, cross products of vectors, multiple products of vectors, the gradient, rectilinear motion of particle, curvilinear motion in a plane, mechanics of a rigid body, constrained motion, vibrating string and vibrating membranes, deformable bodies, and wave motion, Mechanic in fluids, generalized coordinates, and Lagrange's equations, Hamilton equations.

TEXT: Vector Mechanics-D. E. Christie.
Lectures: Three hours a week, two semesters.
Full course.

## 305: Electrical Measurements and Measuring Instruments

Prerequisite: Mathematics 202, Physics 303.
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 \& Sons)
Lectures: Three hours a week, two semesters. Full course. Laboratory: Three hours a week, two semesters.

## 306: Electric Circuits

Prerequisite: Mathematics 202, Physics 303 (concurrently).
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.

Full course. Laboratory: Three hours a week, two semesters.

## 307: Atomic and Nuclear Physies

Prerequisite: Mathematics 202, Physics 303, Mathematics 303 (may be taken concurrently).

An introduction to quantum theory and wave mechanics by way of a review of the classical experiments of atomic physics, the hydrogen atom optical and X-ray spectra-natural radioactivity-disintegration of nuclei fission and fusion of nuclei-nuclear processes-fundamental particlesparticle accelerators.

TEXT: Nuclear Physics-Kaplan (Addison-Wesley) Lectures: Three hours a week, two semesters. Laboratory: Three hours a week, two semesters.

## 308: Electronics

Prerequisite: Physics 303, Mathematics 303 (may be taken concurrently).

Liberation of electrons from atoms, emissions, ionizations, discharges in gases, vacuum tubes, rectifiers, oscillators, amplifiers, wave-shaping and control circuits, transistor circuits, electronic instruments.

TEXT: Electronics Fundamentals and Applications-Ryder (PrenticeHall)
Lectures: Three hours a week, two semesters.
Full course. Laboratory: Three hours a week, two semesters.

## 309: Physical Optios and Optical Instruments

Prerequisite: Physics 202, Mathematics 303.
Geometrical optics, optical design and instruments, Radiation laws, wave behaviour of light and formulation of theories, stimulated radiation and coherence theory, Lasers and Q-Switching.

TEXT: Principles of Optics-Max Born and Emil Wolf.
Lectures: Three hours a week, two semesters.
F'ull course. Laboratory: Three hours a week, two semesters.

## 810: Thermodynamics and Statistical Meohanics <br> Prerequisite: Physics 202, Mathematics 303.

Thermodynamic systems, work, first law of thermodynamics, transfer of heat, ideal gases, second law of thermodynamics, reversibility and irreversibility, carnot cycle, entropy, steam engine and refrigerator, change of phase, physics of very low temperature.

TEXT: Heat and Thermodynamics-Zemansky (McGraw-Hill) Leetures: Three hours a week, two semesters.

Full course.

## 311: Introduction to Modern Physics <br> Prerequisite: Physics 303, Mathematics 303. <br> Electromagnetic waves and moving charges, photoelectric and thermionic effects, theory of relativity, origin of quantum theory, nuclear atom and origin of spectral lines, wave mechanics, atomic structure and optical spectra, X-rays, the nucleus, cosmic rays, fundamental particles. <br> TEXT: Introduction to Modern Physics-Blanchard, Burnett, Staner, <br> Weber (Prentice-Hall) <br> Lectures: Three hours a week, two semesters. Full course.

 Laboratory: Three hours a week, two semesters.
## POLITICAL SCIENCE

## 201: Introductory Political Science

The scope and methodology of Political Science. The natural law; the nature of the state; the purpose of the state; constitutional government.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. , Full course.

## 302: Democratic Government

The essential features of democratic government as observed in the governments of Britain, the United States and Canada. Special attention to such topics as pressure groups, political parties and the growth of the executive in modern government.

TEXT: Democratic Government and Politics-Corry and Hodgetts (Univ. of Toronto Press)
REFERENCE: Politics: Canado-Paul Fox (McGraw-Hill)
Lectures: Three hours a week, two semesters. Full course.

## 303: Government and Politios in the Soviet Union and East Contral Europe

History, culture and political institutions of the Russian Empire and the U.S.S.R. An analysis of the social and economic backgrounds of the ideological and political setting in the Soviet Union; the development and techniques of the one-party state; and the installation of Communiat regimes in East Central Europe.

TEXT: The Soviet System of Government-Hazard (Univ. of Chicago); Lecture notes; required readings.
Lectures: Three hours a week, two semesters. Full course.

## 304: Canadian Government

Prerequisite: Political Science 201 or 302.
A study of the Canadian form of constitutional democracy.
TEXTS: Government of Canada-R. McG. Dawson, 4th Edition N. Ward. (Univ. of Toronto Press); Politics: Canada-Paul Fox (Mc-Graw-Hill)
Lectures: Three hours a week, two semesters. Full course.

## 305: International Relations

Prerequisite: Political Science 201, History 102 or equivalent.
A survey of international relations from the emergence of the modern state system to the present; nationalism, analysis of national sovereignty, imperialism and the balance of power, power politics and international organizations.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 308: Comparative Study of Governments

Prerequisite: Political Science 201 or 302.
A detailed analysis of the institutional function of the governments of the United Kingdom, France, Germany and the U.S.S.R.

TEXT: Contemporary European Governments-F. Nova (Helicon)
Lectures: Three hours a week, two semesters.
Full course.

## 308: International Law and Diplomacy

Not open to Freshmen.
The principal mores, rules and laws set up to regulate and control international relations among states in the political, diplomatic, cultural and other fields.

TEXT: Introduction to the Law of Nations-O. Svarlien (McGraw-
Hill)
Lectures: Three hours a week, two semesters. Full course.

## 309: The British Commonwealth

Prerequisite: Political Science 201 or equivalent History course.
The development of governmental institutions in the nations of the Commonwealth, with particular attention to area problems in India, Africa and Canada.

TEXT: Lecture notes and various references.
Lectures: Two hours a week, two semesters.
Full course.

## 111: Government and Politics in the Far Last

A comparative study of the political and constitutional systems of China, Japan, Korea and the states of Southeast Asia. Recent processes of political development in China; the practice of democracy in postwar Japan and the heritage of feudal and imperial institutions; problems of government and administration in those countries which have recently become independent.

TEXT: Governments and Politics of Southeast Asia-Kahin (Ed.)
(Cornell University)
Lectures: Two hours a week, two semesters.
Full course.

## 312: American Government

A study of the government of the United States, its formal structure and the various components of the political situation.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 815: History of Political Theory

A study of the more important political theories from Plato and Aristotle to the beginning of the nineteenth century. The political theories are studied in their historical settings and in terms of their socio-political meanings.

TEXT: A History of Political Philosophy-Schmandt (Bruce) Lectures: Three hours a week, two semesters.

Full course.

## 316: Modern Political Thought

A study of modern political ideas, from the early nineteenth century to the present time, with special attention to contemporary political doctrines and ideologies.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course.

## 410: Politioal Thought-A Seminar

The seminar deals with the major trends in political thought, early and modern, and draws attention to the persistence of certain ideas throughout the different eras.
Two hours a week, two semesters.
Full course.

## 411: A Seminar

A study of some of the dynamic forces in Canadian politics, especially those which lie outside the formal constitutional framework. Two hours a week, two semesters.

Full course.

## 412: Seminar in Comparative Government

Readings, discussion, and reports on selected problems.
Two hours a week, two semesters.
Full course.

## PSYCHOLOGY

## 201: General Psychology

The general principles of sensation, perception, response and integration, and the nature and control of intelligence and personality.

TEXT: Introduction to Psychology-C. T. Morgan (McGraw-Hill) Lectures: Three hours a week, two semesters.

Full course.

## 302: Systems and Theories of Psychology

Examination and analysis of the theories and systems of thought in modern psychology, tracing key concepts to their historical origins.

TEXT: Systems and Theories of Psychology-Chaplin and Krawiec (Holt, Rinehart and Winston)
REFERENCE: Contemporary Schools of Psychology-Woodworth (Ronald Press)
Lectures: Three hours a week, two semesters. Full course.

## 803: Experimental Psychology

A natural science approach to the study of behavior, human and infrahuman, with special attention to contemporary theory and research in the areas of perception, learning, and motivation.

TEXT: Psychology: the Science of Behavior-Isaacson, Hutt \& Blum (Harper \& Row, 1965)
Lectures: Three hours a week, two semesters. Full course.

## SCIENCE

## 101: General Science

This course is designed to acquaint Arts students with basic scientific principles. Students can choose either option A or option B.

## OPTION A:

Chemistry: Matter, atomic theory, chemical reactions, oxidation and reduction, solution, ionization, electro-chemistry, reaction rates, periodic classification of the elements, organic chemistry.

TEXT: To be announced.
Physics: Electricity, Magnetism, Light and Atomic Physics.
TEXT: College Physics Vol. II-Sears and Zemansky (AddisonWesley)
Lectures: Three hours a week, two semesters.
Full course.

## OPTION B:

Biology: Characteristics of living organisms; structure, classification, relationships, physiology, heredity and evolution with emphasis on the study of man.

TEXT: To be announced.
Geology: The earth as a planet, earth materials, surface processes, deep seated processes, history of geological thought.

TEXT: General College Geology-Eardley (Harper)
Lectures: Three hours a week, two semesters.
Full course.

## SOCIOLOGY

## 201: Introductory Socfology

An introductory analysis of social structure, function, and change; social interaction and control; constant and variable features of the major social institutions-familial, religious, economic, political, educationalwith particular reference to modern industrial society. Social problems; population change; stratification; mass communication; and other selected topics.

TEXT: Sociology-Lundberg, Schrag, Larsen (Harper \& Row, New York 1964)
Lectures: Three hours a week, two semesters.
Full course.

## 302: Social Problems Involving Disorganization and Deviance

A positive approach to establish proper perspectives for adjustment to personal, family, industrial, religious, social and various other problems such as addictions, health, handicaps; vocational difficulties; emotional controls and suicide; industrial hazards, community problems, national problems, minority groups, war, population, prejudice and discrimination; family problems.

TEXT: Social Problems-J. A. Kane (Prentice-Hall)
REFERENCES: Current Social Problems-Mihanovich (Bruce); The World of Work-Robert Dublin (Prentice-Hall); Psychology of Personal Adjustment-F. McKinney (Wiley); Social Problems and Social Action-Walsh \& Furfey (Prentice-Hall); Canadian Socie'yBlishen, Jones, Naegele, Porter (Macmillan).
Lectures: Three hours a week, two semesters.
Full course.

## 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.

TEXT: Criminology-Cavan (Crowell Co.) 3rd Edition.
REFERENCE: Standard texts.
Field work in correctional areas is an essential part of the course.
Lectures: Three hours a week, two semesters.
Full course.

## 305: Anthropology

Prerequisite: One Sociology course.
The aim of the course is to acquaint the student with the major branches of the "Science of Man", i.e. physical and cultural anthropology.

TEXTS: What Happened in History-V. G. Childe; Adam's Ances-tors-L. Leakey; The Science of Man-A. Montagu; The Humanization of Man-A. Montagu
SELECTED REFERENCES: To be announced.
Lectures: Three hours a week, two semesters.
Full course.

## 808: Urban Sociology

Study of modern cities including: physical patterns and location; city planning and redevelopment; problems of population composition and mobility; social problems arising out of class distinction, leisure and changing human relations; community behavior; metropolitan planning.

TEXTS: The City-Rose Hum Lee (Lippincott); Urban Sociology-
J. A. Quinn (American Book Co.); Urban Society-W. E. Cole (Houghton Mimfin).
Lectures: Three hours a week, two semesters.
Full course.

## 310: History of Social Theory

A history of the ideas about social behaviour from the Greeks to the moderns. Emphasis placed on the writing of Comte, Spencer, Marx, Durkheim and Weber.

TEXTS: Assigned readings.
Lectures: Three hours a week, two semesters.
Full course.

## 312: Methodology

Stages of the research process. Experimental design. Surveys, polls, and samples. Hypothesis formulation. Data analysis.
Lectures: Three hours a week, two semesters.
Full course.

## SPANISH

## 101: Elementary Spanish

This course is intended for students who have had no Spanish or whose previous training does not qualify them for a more advanced course. During the course emphasis will be placed on development of listening comprehension, reading, writing and practice in easy conversation. A complete elementary knowledge of the Spanish grammar will be the basic work of the course. Oredit will be given only on completion of Spanish 102.

TEXT: Beginning Spanish-Armitage and Meiden (Houghton Mifflin).
Lectures: Four hours a week, two semesters.
Full course. Laboratory: Three half hours a week, two semesters.

## 102: Intermediate Spanish

The course comprises an intensive practice in spoken and written Spanish with an introduction to Spanish literature through selected readings from Spanish and South American authors.

Students are required to pass an oral and written examination.
TEXTS: Beginning Spanish-Armitage and Meiden (Houghton
Mifflin) ; Dialogos Entretenidos-S. A. Wofsy (Scribners)
Lectures: Three hours a week, two semesters.
Full course. Laboratory: Three half hours a week, two semesters.

## 202: Modern Spanish Literature

A special study of Spanish literature of the nineteenth and twentieth centuries. The students will be required to make a more practical usage of the language in composition and conversation. Classes as far as possible will be conducted in Spanish.

TEXT: To be announced.
Lectures: Three hours a week, two semesters. Full course. Laboratory: Three half hours a week, two semesters.

## THEOLOGY

## 102: The Church

This course is intended primarily for those who have not had any previous university courses in theology. The Church is studied under four headings: as a living organism, as a developing organism, an active organism, and as a structured organism.

TEXTS: The Bible (Confraternity Edition)-Benziger, New York; God's own People-Norris, F. B. Helicon, Baltimore, 1962; The Church in the World-Hasseveldt, R., Fides, Notre Dame, Ind.; Constitution on the Church-Vatican II.
Lectures: Three hours a week, two semesters. Full course.

## 301: Christ and Culture

A study of some of the consequences of the fact that the Christian Church is not only a spiritual but also a cultural phenomenon. The Christian peoples have been forced to adopt definite attitudes to the various secular cultures with which they have come into contact, and, at the same time, their faith has had to find cultural expression within the different societies.

TEXTS: The Bible; Christ and Culture-Niebuhr, H. Richard (Harper, New York 1963)
Lectures: Three hours a week, two semesters. Full course.

## 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 the two Ecumenical Councils dealing with it, Nicaea I, and Constantinople I, 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 irom these.

TEXTS: The Bible; A History of the Church, Vol. I; The Church and the World in Which the Church was Founded-Hughes, Philip (Sheed and Ward, New York)
Lectures: Three hours a week, two semesters.
Full course.

## 305: The Old Testament

A literary, historical, and theological study of the Old Testament books. The principal emphasis is on tracing certain theological themes: Salvation History, Covenant, Messianism, etc. from their promise to Adam to their fulfilment in Christ.

TEXT: The Bible.
Lectures: Three hours a week, two semesters. Full course.

## 307: The New Testament

The study of Christ as presented in the New Testament literature, above all in the four Gospels. This description is cast against the background of Old Testament times and thought. In addition the main elements of Christian revelation are studied in their first presentation as found in the Gospel literature.

TEXT: The Bible
Lectures: Three hours a week, two semesters. Full course.

## 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.

TEXTS: A History of the Church, Vol. III; The Revolt against the
Church: Aquinas to Luther-Hughes, Philip (Sheed and Ward, New York)
Lectures: Three hours a week, two semesters.
Full course.

## 310: The Social Teaching of the Church from Leo XIII to John XXIII

Taking Leo XIII as expressing in his Encyclical, Rerum Novarum the basic teaching on Christian social thought and action, the interpretation and development of this in the documents of the subsequent Popes is studied.

TEXTS: The Church Speaks to the Modern World-Leo XIII, Doubleday, N. Y.; The Church and the Reconstructon of the Modern WorldPius XI, Doubleday, N. Y.; Mater et Magisira-John XXIII, The
America Press, N.Y.; Pacem in Terris-John XXIII, The America
Press, N. Y.; Social Principles and Economic Life—Cronin, John F., Bruce, Milwaukee.
Lectures: Three hours a week, two semesters. Full course.

## 304: The Development of the Dogmas Regarding the Word Incar-

 nateAfter a careful examination of New Testament teaching as the basis for the subsequent development, the Christology of the more important Farly Fathers and ecclesiastical writers will be studied. Next the Arian controversy and the two Ecumenical Councils dealing with it, Nicaea I, and Constantinople I, 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 emergnd from these.

TEXTS: The Bible; A History of the Church, Vol. I; The Church and the World in Which the Church was Founded-Hughes, Philip (Sheed and Ward, New York)
Teetures: Three hours a week, two semesters. Full course.

## 305: The Old Testament

A literary, historical, and theological study of the Old Testament books. The principal emphasis is on tracing certain theological themes: Salvation History, Covenant, Messianism, etc. from their promise to Adam to their fulfilment in Christ.

TEXT: The Bible.
Fectures: Three hours a week, two semesters. Full course.

## 307: The New Testament

The study of Christ as presented in the New Testament literature, sbove all in the four Gospels. This description is cast against the backcround of Old Testament times and thought. In addition the main elements of Christian revelation are studied in their first presentation as found In the Gospel literature.

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Full course.

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Church: Aquinas to Luther-Hughes, Philip (Sheed and Ward, New York)
Lectures: Three hours a week, two semesters.
Full course.

## 310: The Social Teaching of the Church from Leo XIII to John XXIII

Taking Leo XIII as expressing in his Encyclical, Rerum Novarum the basic teaching on Christian social thought and action, the interpretation and development of this in the documents of the subsequent Popes is studied.

TEXTS: The Church Speaks to the Modern World-Leo XIII, Doubleday, N. Y.; The Church and the Reconstructon of the Modern WorldPius XI, Doubleday, N. Y.; Mater et Magistra-John XXIII, The America Press, N.Y.; Pacem in Terris-John XXIII, The America Press, N. Y.; Social Principles and Economic Life-Cronin, John F., Bruce, Milwaukee.
Leedures: Three hours a week, two semesters.
Full course.

## 311: The Theology of the Sacraments

A study of the sacramental principle as illustrated in the initiation rites and liturgies of the early Church; the historical and doctrinal development of the Church's teaching on the Sacraments in general; the Eucharist as Sacrament and Sacrifice; the Sacraments as Liturgy.

TEXTS: The Bitle; Others to be announced.
Lectures: Three hours a week, two semesters.
Full course.

## 818: Moral Theology

The aim of this course is to present a morality which is aware of, and vitally concerned for, the conditions of the contemporary world. This requires not only an understanding of the existential situation in which man finds himself today, but a knowledge of the nature of man which makes him capable of being a moral subject, and especially of the moral dimensions of the new life to which the Christian has been called by, and in, Christ.

TEXTS: The Bible; Christian Renewal in a Changing World-Haring, Bernard, Desclee, N. Y.
Lectures: Three hours a week, two semesters. Full course.

## 815: Karl Rahner

A textual introduction to Karl Rahner, and to his attempt to relate traditional dogma to present-day philosophical and psychological insights. Lectures: Three hours a week, two semesters.

Full course.

## 816: Sacraments of Healing and Vocation

The sacraments of healing and vocation, especially Penance and Matrimony, will be studied as personal encounters between God and man. The course will therefore introduce the student to the contemporary theological literature on the subject, and to the rich insights of the theological thought of the past three decades into the nature of these sacraments, and so help him to understand their importance in Christian spirituality.
Lectures: Three hours a week, two semesters.
Full course.

## 408: Church and State Through the Ages

Prerequisite: Permission of the Department.
An interdepartmental seminar, made possible by the cooperation of the following departments: History, Philosophy, Political Science, and Theology.

## 414: Freedom In St. Augustine

Prerequisite: Permission of the Department.
A lecture and seminar course to examine the Augustinian doctrine of man as the image of God and its implications for his concept of freedom. REFERENCES: Selected works and. readings of Augustine.

Full course.

## CONVOCATION - . . MAY 10, 1965

## medals and prizes

GOVERNOR-GENERAL'S MRDAL..........Lorenz Immanuel Friedlaender Awarded to the student who has made the most outstanding contribution to scholarship and student activities

## ARTS

Highest Aggregate in Four Years Arts. $\qquad$ Guy Charles Pothier Gold Medal donated by Most Reverend J. Gerald Berry, D.D.

## SCIENCE

Highest Aggregate in Fourth Year Science $\qquad$ Kevin Francis Clancey Gold Medal donated by Saint Mary's University Ladies' Auxiliary

## COMMERCE

Highest Aggregate in Four Years Commerce.<br>$\qquad$ Thomas Patrick Finn Gold Medal donated by Messrs. Henry Birks \& Sons

## ENGINEERING

Highest Aggregate in Three Years Engineering........ .John Sum Chiu Tong Gold Medal donated by Mr. and Mrs. J. M. Inglis in memory of their son, Delisle Inglis

## EDUCATION

Highest Aggregate in Education.
Kelly Hanrahan
Gold Medal donated by Truro Printing \& Publishing Co. Limited

## GRADUATES-MAY 10, 1965

## BACHELOR OF ARTS



| Moore, John Scott | Halifax, N. S. |
| :---: | :---: |
| Murphy, John William | Boulderwood, N. S. |
| Naugle, Dennis Alexande | Eastern Passage, N. S. |
| Northup, Arthur Willian | St. Hubert, P.Q. |
| O'Brien, Daniel Thomas. | Dartmouth, N. S. |
| O'Brien, Stewart Allison | Dartmouth, N. S. |
| O'Leary, Margaret Aileen (cum laude)...... | Halifax, N. S. |
| O'Leary, Paul Frederick | Halifax, N. S. |
| Pothier, Guy Charles (Honours English).. | Halifax, N. S. |
| Roach, James P. | Yarmouth, N. S. |
| Romeo, Carl Bernard | Rochester, N. Y. |
| Roper, George Patrick | Dorchester, Mass. |
| Semple, James Richard | Saint John, N. B. |
| Sullivan, Eugene Lawrence | Exeter, N. H. |
| Surette, Ralph Joseph (cum laude) | Ste. Anne du Ruisseau, N. S. |
| Trainor, Thomas Joseph | Lexington, Mass. |
| Viger, Roland Joseph (magna cum laude) | Montreal, P. Q. |
| Wilson, Daniel Alexander......... | Halifax, N. S. |
| Wilson, Murray James (magna cum laude) | Enfield, N. S. |
| Winters, Francis William | Ingonish, N. S. |

## BACHELOR OF SCIENCE

| Clancey, Kevin Francis (summa cum laude) | Halifax, N. S. |
| :---: | :---: |
| Cormier, Brian Anthon | Halifax, N. S. |
| Duggan, John Edward | Halifax, N. S. |
| Fisher, Robert John | Halifax, N. S. |
| Grantham, Richard Ernest | Halifax, N. S. |
| Higgins, Terrance Francis (cum laud | Lower Sackville, N. S. |
| Kennedy, Owen David | Halifax, N. S. |
| Lee, Anthony Yu Shing | Hong Kong |
| McGlone, Thomas Mich | Rockingham, N. S. |
| McMahon, Dale Patrick | Dartmouth, N. S. |
| Maingot, Thomas Joseph | Trinidad, W. I. |
| May, Henry Michael. | Trinidad, W. I. |
| Mohammed, Haniff | Trinidad, W. I. |
| Vriend, Johannes A | Halifax, N. S. |

## BACHELOR OF COMMERCE

Boudreau, Gary Leon.............................................................................................................................. N. S.

| Burns, Philip Edw | Halifax, N. S. |
| :---: | :---: |
| Clarke, John David. | .Chester Basin, N. S. |
| Copp, Douglas Francis | Halifax, N. S. |
| Cruikshank, Bruce Kenneth | Halifax, N. S. |
| Englehart, Maurice Edgar | Dalhousie, N. B. |
| Ferguson, Vincent Paul. | Halifax, N. S. |
| Finn, Thomas Patrick (cum laude). | Spaniard's Bay, Nfld. |
| Francis, Dennis Blaine. | .Halifax, N. S. |
| Godwin, Paul Adrian | Halifax, N. S. |
| Gomes, Ronald Joseph | Dedham, Mass. |
| Hartt, Leo Alexander | Dartmouth, N. S. |
| Holland, Kline Churchill | Halifax, N. S. |
| Howe, Wayne Arthur. | Dartmouth, N. S. |
| Julian, Brian Walter. | Grand Desert, N. S. |
| Lawrence, Archibald David | Halifax, N. S. |
| McDonah, Roland Anthon | Halifax, N. S. |
| MacDonald, M. A. Stuart | Sydney, N. S. |
| Maguire, Thomas Francis. | Dorchester, Mass. |
| Morris, David Robert | Dartmouth, N. S. |
| Mrkonjic, Joseph Victor. | Halifax, N. S. |
| Mullane, John Francis. | Halifax, N. S. |
| Murphy, Edmund Joseph | Manchester, N. H. |
| Nason, John Alden. | Armdale, N. S. |
| O'Neill, Gerald Dennis. | Halifax, N. S. |
| Pinard, Armand Frederick | Manchester, N. H. |
| Ritchie, George Edwinn | Halifax, N. S. |
| Rupert, Curtis David. | Dartmouth, N. S. |
| Schneider, John Kenneth | Fairfield, Conn. |
| Skaling, Daniel Gordon | Fredericton, N. B. |
| Sloan, Robert Joseph. | Halifax, N. S. |
| Stern, Erik Lawrence | Halifax, N. S. |
| Wildey, Thomas John. | Halifax, N. S. |
| DIPLOMA IN ENGINEERING |  |
| d'Entremont, Gene Fran | West Pubnico, N. S. |
| Gilpin, Radcliffe Ayodele | Freetown, Sierra Leone, W.A. |
| Hiltz, Daniel Eric.. | Armale, N. S. |
| LaRocque, Guy Joseph | Halifax, N. S. |
| Matthews, Malcolm Lloy | Dartmouth, N. S. |
| Ringrose, William Arthu | Montreal, P. Q. |
| Schumph, Bernard. | Stephenville, Nfid. |
| Tam, Chock-Ying. | Halifax, N. S. |
| Tanner, Gregory Joseph | Halifax, N. S. |
| Tong, John Sum Chiu (with greatest distinction) $\qquad$ | Hong Kong |

## DIPLOMA IN JOURNALISM

Canfield, Leonard Wallace<br>Bediord, N. S.<br>Cassivi, Louis Gerard, B.A...............................Halifax, N. S.<br>Walker, Frederick Bruce....................................Halifax, N. S.

## BACHELOR OF EDUCATION

| Baxter, Vivienne Bruce, B.Sc. (magna cum laude) $\qquad$ | Halifax, N. S. |
| :---: | :---: |
| Cable, Paul Joseph, B.A................................. | Halifax, N. S. |
| Driscoll, Peter Joseph, B.A | Halifax, N. S. |
| Duggan, Kenneth Alexander, B.A. (cum laude) | Halifax, N. S. |
| Dunlop, Douglas Franklyn, B.Sc. <br> (cum laude) | Halifax N. S. |
| Hanrahan, Kelly, B.Sc. (magna cum laude) A | Armdale, N. S. |
| Jenkins, Rose Catherine, R.N., B.Sc. <br> (magna cum laude) | Halifax, N. S. |
| Lelacheur, Ruth Levine, B.A........................ D | Dartmouth, N. S. |
| Longaphy, Robert Joseph, B. | Halifax, N. S. |
| Macdonald, Catherine Elizabeth, B.A............. | Halifax, N. S. |
| MacNutt, Adrian Woolaver, B.A..................D | Dartmouth, N. S. |
| McSweeney, Joseph Francis, B.A................... | Halifax, N. S. |
| Makhan, Chris Anthony, B.A.......................P | Port-of-Spain, Trinidad |
| Melanson, David Alyre, B.A. (cum laude).... | Halifax, N. S. |
| Mullins, Maureen Frances, B.A...................... | Pictou, N. S. |
| Punch, Terrence Michael, B.A. (cum laude) H | Halifax, N. S. |
| Semple, Helen Marie Elizabeth, B.Sc............F | Halifax, N. S. |
| Veinotte, Marv Catherine, B.A | Halifax, N. S. |
| Verma, Dhirendra, M.Sc. (cum laude)...........B | Bareilly, U.P., India |

## MASTER OF SOCIAL WORE

Bendelier, Kenneth Parker, B.Comm.............Halifax, N. S.<br>Milne, Winifred Mary, B.A................................Halifax, N. S.

## MASTER OF ARTS

Chard William David, B.A., B.Ed. (magna cum laude)

Halifax, N. S.
Eldridge, Maynard Peter, B.A., B.Ed. (cum laude)

Halifax, N. S.

Fillmore, Herbert Carter, B.A., B.Ed.............Dartmouth, N. S.
McCarthy, Augustine Patrick, B.A., B.Ed.
(cum laude)
Halifax, N. S.
MacDonald, Leonard Joseph Grant, B.A., B.Ed.

Dartmouth, N. S.
McDonald, Marjorie Marie, B.A., B.Ed. (cum laude)

Halifax, N. S.
MacDonald, Robert Joseph, B.A., B.Ed..... ..Dartmouth, N. S. Publicover, Isabel Elsie, B.A., B.Ed. (magna cum laude)

Halifax, N. S.

## GRADUATES-OCTOBER 1, 1965

## BACHELOR OF ARTS

Cleary, James Michael........................................ Andover, Mass.
Cormier, Joseph George Lionel..........................Hàvre St. Pierre, P. Q.
Dean, John Joseph..............................................Halifax, N. S.
Dougherty, John Albert, Jr...............................Washington, D.C.
Fedorsky, Michael Stephen.................................Halifax, N. S.
Gaudet, Kenneth Joseph....................................Saulnierville, N. S.
Hayman, Catherine Marli.................................Westville, N. S.
Jeffries, Lillian Mary..........................................Halifax, N. S.
Kennedy, William Joseph.................................Trepassey, Nfld.
LeBlanc, John Rene............................................Halifax, N. S.
Lovett, James Frederick, B.Sc..........................Dartmouth, N. S.
MacDonald, Peter Bannon.................................Halifax, N. S.
McHale, Dennis Norbert Joseph......................Lowell, Mass.
Murphy, John Brian (cum laude)....................Saint John, N. B.
Ng, Philip Kwok-Piu..........................................Hong Kong
Nichols, Margaret Bertha (cum laude)............Halifax, N. S.
Ruotolo, Robert Andre.......................................Wolfeboro, N. H.
Simms, George Graham......................................Halifax, N. S.
Singh, Lalman Seecharan.................................TTinidad, W. I.
Whalen, Terrence Anthony (Honours English)

Windsor, N. S.

## BACHELOR OF SCIENCE

| Gipin, Radcife Ayodele. | Sierra Leone |
| :---: | :---: |
| Harricharan, Humphrey Kuma | Britialk Guis |
| Hiltz, Daniel Eric | Hialifer, N. S. |
| Robbins, James Clark | Yarmeth, N. S. |
| Sinclair, Dale Patri | Taronta, Oet |

## BACHELOR OF COMMERCE

Duffy, Wayne Joseph.
Flinn, David Michael
Radford, John Harold. $\square$

DIPLOMA IN ENGINEERING
Lim, Si Ngiam (with distinction). $\qquad$

## MASTER OF ARTS

Palvesky, Ralph, B.A., B.Ed. Tanacion


[^0]:    J. L. Ryan, E.D.

    Dean, Associate Professor, Engineering B.Sc., Saint Mary's University; B.E. (Mechanical), Nova Scotia Technical College
    Allan T. Sabean $\qquad$ Asscciate Professor, Chemistry
    B.A., B.Sc., Saint Mary's University; M.Sc., McGill University

    Adolfo Sarabla. Assistant Professor, Spanish B.A., Valladolid; M.A., UUniversity of Madrid

    Lawrence Soobbie.........................................Associate Professor, Education M.A., Dip. Ed., M.Ed., University of Edinburgh

[^1]:    Rev. F. E. Crowe, S.J. Fundamental, Dogmatic Theology B.A., University of Montreal; B.Sc., University of New Brunswick; S.T.D., Gregorian University

    Rev. L. O. Gibbong, S.J.............................Fundamental, Dogmatic Theology B.A., University of Montreal; L.Ph., S.T.L., Immaculate Conception

    Rev. T. Horvath, S.J.
    Fundamental Theology
    S.T.D., Gregorian University

    Rev. M. J. Lapierre, S.J
    Dogmatic Theology
    B.A., University of Montreal; S.T.I., St. Louis University;

    Ph.D., University of Toronto
    Rev. Sean MoEvenue, S.J. $\qquad$ Hebrew, Old Testament Exegesis B.A., University of Montreal; S.T.L., Immaculate Conception; SS.L., Pontifical Biblical Institute
    Rev. J. E. MacGuigan, S.J. Canon Law, Pastoral Theology B.A., M.A., Boston College; S.T.L., Milltown Park; J.C.D., University of Ottawa
    Rev. C. Maloney, S.J.
    Dogmatic Theology
    B.A., University of Montreal; M.A., University of Toronto;
    S.T.D., Gregorian University

    Rev. P. A. Riffel, S.J. $\qquad$ Pastoral Psychology
    B.A., University of Montreal; M.A., Fordham University

    Rev. E. F. Sheridan, S.J.
    Moral Theology
    B.A., University of Montreal; S.T.L., Immaculate Conception;
    S.T.D., Gregorian University

    Rev. D. M. Stanley, S.J..................Biblical Greek, New Testament Exegesis B.A., University of Montreal; S.T.L., St. Louis University; SS.D., Pontifical Biblical Institute
    Rev. T. Zuydwijk, S.J.
    Moral Theology
    B.A., University of Montreal; M.A., University of Toronto;
    S.T.D., Gregorian University

[^2]:    English 524: Philosophy of Drama
    A seminar course in the source, nature and purpose of the modern drama,
    Sessions: Three hours a week, two semesters.
    Full course.

