NOVA SCOTIA AGRICULTURAL COLLEGE

CALENDAR
1972-1973

APPLICATION FOR ADMISSION (1972)

NOVA SCOTIA AGRICULTURAL COLLEGE

Date.....

Name in full.....

Address.....

Birthday.....
Day Month Year

Next of Kin.....Relationship.....

Address.....

Are you a close relative of a former student? If so, please give the name, degree of relationship, and, if possible, the year of the former student.

.....

.....

If you were not in high school during the 1971-72 school year, what educational institution or institutions have you attended since you were in high school?.....

.....

Course Desired:

First Year Technician: Agricultural Business.....

Animal Science.....

Plant Science.....

Agricultural Engineering.....

First Year Technologist (New Program).....

Second Year Degree (Old Program).....

Third Year Degree (Old Program).....

First Year Degree (New Program)

Agricultural Science.....

Agricultural Engineering.....

Applications for admission to the first year of the Degree Course will not be considered until an official transcript of matriculation marks (Provincial or School) has been submitted.

Applications for admission to the first year of the Technician Course will not be considered until an official transcript of the required marks (provincial or school) has been submitted.

What high school did you attend?.....

.....

State employment experience, giving name and address of employers . . . . . .

.....

In submitting this application form I hereby agree to abide by the rules and regulations of the College.

Signature of Applicant.....

Signature of Parent or Guardian.....
(Required only if applicant is under 21)

Please complete the reverse side

Questions to be answered and form returned to:
THE REGISTRAR
THE NOVA SCOTIA AGRICULTURAL COLLEGE
TRURO

Please check applicable items below in answering the question "Where did you hear about the Nova Scotia Agricultural College?"

Through:

(a) 4-H . . . . . .

(b) School Counsellor . . . . . .

(c) An Agricultural Representative . . . . . .

(d) Parents . . . . . .

(e) Career Event . . . . . .

(f) A Friend . . . . . .

(g) A Graduate of the College . . . . . .

(h) Other . . . . . .

SIXTY SEVENTH ANNUAL

CALENDAR

OF THE

NOVA SCOTIA
AGRICULTURAL COLLEGE
TRURO

UNDER

The Nova Scotia Department
of Agriculture and Marketing

1972 – 1973

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1972

JULY

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1973

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CALENDAR FOR SESSION – 1972-73

1972

August 28	Refresher Course for selected First Year Technician students commences at 1:30 p. m.
September 6-8	Supplemental examinations.
September 11	Registration for all first year students and all other students registering for the first time
September 12	Registration for second and third year students
September 13	Lectures commence at 8:15 p. m.
October 9	Thanksgiving Day. No classes
November 3-5	Mid-term break
To be announced	First term examinations
December 21	Last day of first term

1973

January 2	Second term lectures commence at 8:15 p. m.
Feb. 28 - Mar. 4	Mid-term break
April 20	Good Friday. No classes
To be announced	Second term examinations
May 2	Graduation exercises

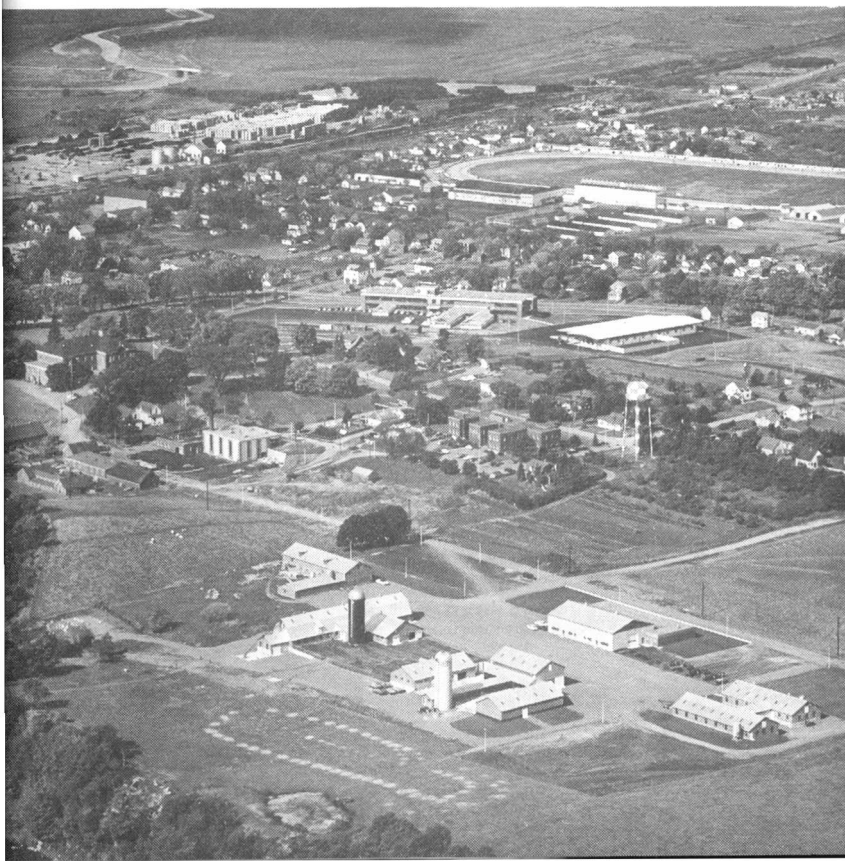
Trueman House, Chapman House and Fraser House will be open as follows:

- for Refresher Course students, the morning of August 28;
- for students who have to write supplemental examinations, after dinner on September 5;
- for all new students, after dinner on September 10;
- for all other students, after dinner on September 11.

Any student who wishes to use the facilities of a dormitory before the times set down above will be charged at the rate of $5.00 per day.

A student who wishes to register late must make the necessary arrangements through the Registrar's office. Unless the arrangements for late registration are made in time for the applicant to have all first term payments in the Accounting Office not later than September 8, a penalty of $5.00 will be imposed for each day of lectures until registration has been completed.

GENERAL INFORMATION



OFFICERS OF ADMINISTRATION

Principal
W. A. JENKINS, B. Sc. (Agr.) (McGill), M. Sc. (Cornell), Dr. P. A. (Harvard)

Vice-Principal
J. E. SHUH, B. S. A. (Toronto), M. Sc. (McGill)

Dean, Vocational and Technical Education
A. D. ELLS, B. Sc. (Agr.) (McGill), M. A. (Acadia)

Registrar
PARKER COX, B. A. (Acadia), M. A. (Toronto)

Librarian
B. S. SODHI, B. A. (Punjab), M. A. (Punjab), Dip. L. Sc., (Punjab)

Dean of Residence – Chaplain
REV. D. I. MacEACHERN, B. A. (Mt. Allison), B. D. (Pine Hill)

Placement Officer
D. E. MacLEOD, B. A. (Dalhousie), B. Ed. (Acadia)

Business Manager
R. F. McEWAN

Secretary
MRS. A. MARIE HARTIGAN

Nurse
MRS. AGNES YUILL, R. N.

FACULTY COUNCIL

Principal
W. A. JENKINS, B. Sc. (Agr.) (McGill), M. Sc. (Cornell), Dr. P. A. (Harvard)

Agricultural Engineering

D. E. CLARK, B. S. A. (Toronto), M. S. A. (Guelph)
Associate Professor

G. E. TOWNSEND, B. Sc. (Agr.) (McGill)
Assistant Professor

J. T. MacAULAY, B. S. A. (Toronto), B. E. (Nova Scotia Technical College), M. Sc. (Guelph)
Assistant Professor

JAMES ADAMS, B. Sc. (Strathclyde)
Assistant Professor

R. C. GILKIE, B. Sc. (Dalhousie), B. Eng. (Nova Scotia Technical College), Ph. D. (London)
Visiting Lecturer

Animal Science

L. M. COCK, B. Sc. (Agr.) (McGill), M. S. (Wisconsin), Ph. D. (Maine)
Professor

S. L. CURTIS, B. S. A. (Toronto), M. Sc. (Massachusetts), Ph. D. (Minnesota)
Associate Professor

W. G. MATHEWSON, B. Sc. (Agr.) (Aberdeen), D.T.A. (Trinidad)
Assistant Professor

D. C. CROBER, B. Sc. (Agr.) (McGill), M. Sc. (McGill), Ph. D. (British Columbia)
Assistant Professor

G. V. M. MOWBRAY, D. V. M. (Toronto)
Visiting Lecturer

G. W. CHANT, B. S. A. (Guelph)
Lecturer (on loan)

Biology

A. E. ROLAND, B. A. (Acadia), M. A. (Toronto), Ph. D. (Wisconsin)
Professor

M. E. NEARY, B. Sc. (Agr.) (McGill)
Assistant Professor

L. J. EATON, B. Sc. (Acadia), M. Sc. (Dalhousie)
Assistant Professor

R. B. PORTH, B. S. A. (Br. Columbia), M. S. A. (Br. Columbia)

Assistant Professor

L. L. LEVY, B. Sc. (Acadia), M. Sc. (Acadia)

Lecturer

Chemistry

W. M. LANGILLE, B. Sc. (Acadia), M. Sc. (McGill)

Associate Professor

J. E. HAWLEY, B. Sc. (Agr.) (McGill)

Assistant Professor

H. M. McCONNELL, B. Sc. (Agr.) (McGill)

Lecturer

A. S. PAYNE, B. Sc. (Agr.) (McGill), M. Sc. (McGill)

Lecturer

K. S. MacLEAN, B. Sc. (Dalhousie), M.Sc. (McGill)

Associate Professor

Economics and Business Management

W. A. JENKINS, B. Sc. (Agr.) (McGill), M. Sc. (Cornell), Dr. P. A. (Harvard)

Principal and Professor

A. D. ELLS, B. Sc. (Agr.) (McGill), M. A. (Acadia)

Associate Professor

W. V. GRANT, B. Sc. (Agr.) (McGill), M. Sc. (Connecticut)

Lecturer (on loan), Director of Extension Services

J. C. TAIT, B. Sc. (Agr.) (McGill), M. Sc. (New Hampshire)

Lecturer

D. E. E. DORAN, B. S. A. (Toronto), M. S. A. (Toronto)

Assistant Professor

T. C. GUNN, B. Sc. (Agr.) (McGill), M. Sc. (Connecticut)

Lecturer (on loan)

DAVID E. ARNFAST, B. B. A. (St. Francis Xavier)

Lecturer (on loan)

English and Social Sciences

PARKER COX, B. A. (Acadia), M. A. (Toronto)

Associate Professor

REV. D. I. MacEACHERN, B. A. (Mt. Allison), B. D. (Pine Hill)
Assistant Professor
D. E. MacLEOD, B. A. (Dalhousie), B. Ed. (Acadia)
Assistant Professor
REV. G. A. DELANEY, B. A. (Gordon), B. D. (Acadia), Th. M. (Duke)
Assistant Professor

Mathematics and Physics

I. M. FRASER, B. Sc. (Dalhousie), M. A. (Maine)
Associate Professor
S. G. SMITH, B. Sc. (Mt. Allison), M. Sc. (Windsor)
Assistant Professor

R. V. BUCKLER, B. Sc. (Acadia), B. Ed. (Acadia)
Assistant Professor
V. L. SAXON, B. Sc. (Dalhousie), B. Ed. (Acadia), B. Eng. (N. S. Technical College)
Assistant Professor

Physical Education

K. S. MARCHANT, B. P. Ed. (New Brunswick)
Lecturer

Lecturers on loan are members of the staff of the Nova Scotia Department of Agriculture and Marketing.

Plant Science

J. S. BUBAR, B. Sc. (Agr.) (McGill), M. S. (Pennsylvania State) Ph. D. (McGill)
Professor
J. E. SHUH, B. S. A. (Toronto), M. Sc. (McGill)
Professor
K. PADMANATHAN, B. Sc. (Madras), B. Sc. (Agr.) (Colombo), M. Sc. (Pennsylvania State), Ph. D. (Pennsylvania State)
Assistant Professor
W. BADCOCK, B. Sc. (Agr.) (McGill)
Assistant Professor

F. J. WRAY, B. Sc. with honours (Leeds), M. Sc. (Leeds), D. Phil. (Oxford)
Assistant Professor

SCHEDULE OF PAYMENTS

The College reserves the right to make changes without notice in its published scale of charges for tuition, board and lodging, and other fees. Refunds will not be made except as stated below.

All payments are to be made on the dates stated. Students are requested not to ask for a postponement. A student whose payment is ten days overdue and who has not made arrangements satisfactory to the College may be asked to withdraw.

DEGREE COURSES

Payments due September 11, 1972.

Tuition	$225
Board and lodging	$330
Caution and laboratory deposit	$ 20
Students' Council	$ 40
Medical fee	$ 6
	$621

Payments due January 2, 1973

Tuition	$225
Board and lodging	$390
	$615

Books (estimated), September 11, 1972 $ 75

TECHNICIAN AND TECHNOLOGIST COURSES

Tuition
Free to residents of the Atlantic Provinces, the governments of which are sharing operating costs of the Technician Courses.

Payments due September 11, 1972

Board and lodging	$330
Caution and laboratory deposit	$ 20
Students' Council	$ 40
Medical fee	$ 6
	$396

Payments due January 2, 1973

Board and lodging	$390

Books (estimated), September 11, 1972 $ 65

The United Students' Council has approved of a fee of $6.00 for the medical services fund to be collected from all students at the time of registration. The fund, with the

exception noted below, will look after the costs of a doctor's service which are not provided for by a provincial medical insurance plan or a private plan and of non-prescription drugs for the infirmary. It will not provide for prescription drugs, hospitalization or operations. All doctor's services will be requested by the College nurse or, in an emergency in which she cannot be available, reported to her immediately after the service has been provided.

If a student withdraws during the term, except for health or other compelling compassionate reasons, he will receive no refund of the tuition fee. Any balance of board and lodging payment over and above the initial deposit of $25.00 will be refunded.

If a student withdraws during the first week of the academic year, the Students' Council and Medical Services fees will be refunded. After the first week there will be no refund except for a withdrawal for health or other compelling compassionate reasons. After a student has withdrawn the students' Medical Fund will have no further responsibility for him.

GENERAL INFORMATION

The Nova Scotia Agricultural College was formally opened in 1905 to assume and expand the work which for several years had been carried on by the School of Horticulture in Wolfville and the School of Agriculture in Truro. The College operates under authority of an act of the legislature of Nova Scotia.

Over the years instruction has been offered at various levels: among them credits towards a degree in Agriculture, semi-vocational courses, technician courses, and vocational short courses. In 1972-73 credits towards a science degree in Agriculture and an engineering degree in Agriculture, four technician courses, technologist courses and vocational short courses will be offered.

During the sixty-seven years of its existence the Nova

Scotia Agricultural College has had very close affiliations with the Ontario Agricultural College (now a college of the University of Guelph) and Macdonald College of McGill University, at which institutions most of its graduates from the Degree Course have completed the studies leading to a degree. It now offers two years of a four-year course in Agricultural Science and three years of a five-year course in Agricultural Engineering.

A number of graduates of the Nova Scotia Agricultural College have continued their studies at the Ontario Veterinary College (now a college of the University of Guelph). Qualified graduates from the Degree Course are considered for admission to the first year in veterinary medicine.

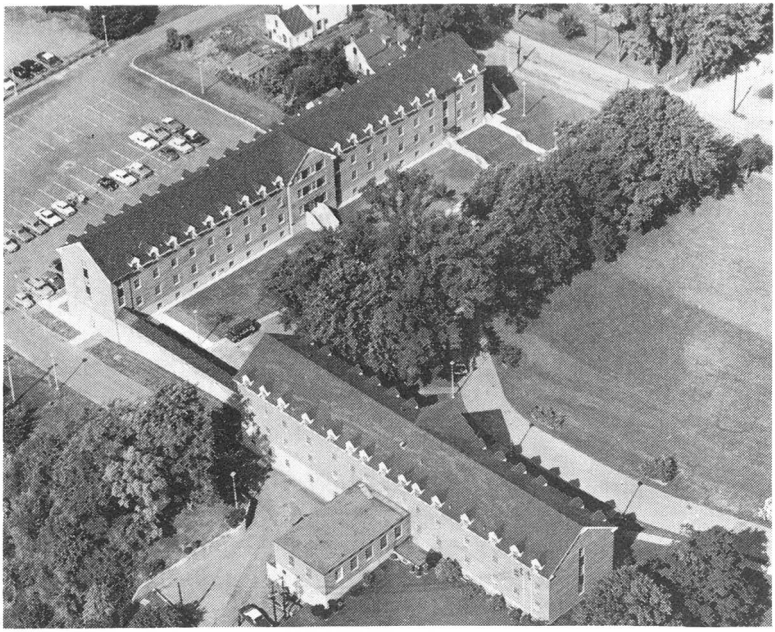
Graduates of the pre-engineering course at the Nova Scotia Agricutural College will be admitted without further examination by the Nova Scotia Technical College to the second last year of a course leading to the degree of Bachelor of Engineering with specialization in Agricultural Engineering.

The University of Maine will consider for admission to its second last year in Agricultural Science a limited number of graduates of the Nova Scotia Agricultural College who have been recommended by the Principal.

To the sudent who wishes to farm, to accept employment in a farm-related industry, or to engage in professional agriculture, the College offers courses designed to better fit him for the line of endeavor he wishes to follow.

Agriculture offers to the alert man the widest possible field for study and opportunity. Its problems are a challenge to the keenest minds that can be brought to bear upon them, and it offers to many a young man the possibility of a career that will bring opportunity for useful service and distinction.

The record of the graduates of this institution, over the sixty-seven years the College has been in existence, is conclusive evidence that Maritime students can obtain a sound agricultural education in the courses offered at the Nova Scotia Agricultural College, located on a 550 acre property at



Bible Hill, a mile north-east of Truro, Nova Scotia.

The College is well equipped with buildings. Cumming Hall, Harlow Institute, the Agricultural Engineering Building, the Horticultural Building, the Dairy Building, the Cox Institute of Agricultural Technology, the Boulden Building, the Agricultural Mechanics Building and a new barn complex provide adequate teaching facilities for all subjects offered and offices and laboratories for a large proportion of the staff of the Nova Scotia Department of Agriculture and Marketing. Fraser House and Chapman House provide living accommodations for approximately 400 male students, and Trueman House provides accommodation for 80 female students.

The Faculty reserves the right to withhold any first year course for which less than five students apply.

The Faculty will give sympathetic consideration to any student who wishes to take a special selection of courses in order to fill a specific need.

The various courses arranged for the 1972-73 college year are listed and described elsewhere in the calendar. The Faculty reserves the right to make any revisions and additions that may be found to be necessary.

Post Office Address:

All mail should be addressed:

Nova Scotia Agricultural College, Truro, N. S.

Telephone:

Nova Scotia Agricultural College, Truro, 902-895-1571

Banks:

The following chartered banks have branches in Truro:

The Bank of Nova Scotia
The Bank of Montreal
The Canadian Imperial Bank of Commerce
The Royal Bank of Canada

Telegrams:

Branches of both Canadian National Telegraphs and Canadian Pacific Telegraphs are located in Truro.

Address all telegrams in care of:

Nova Scotia Agricultural College, Truro, N. S.

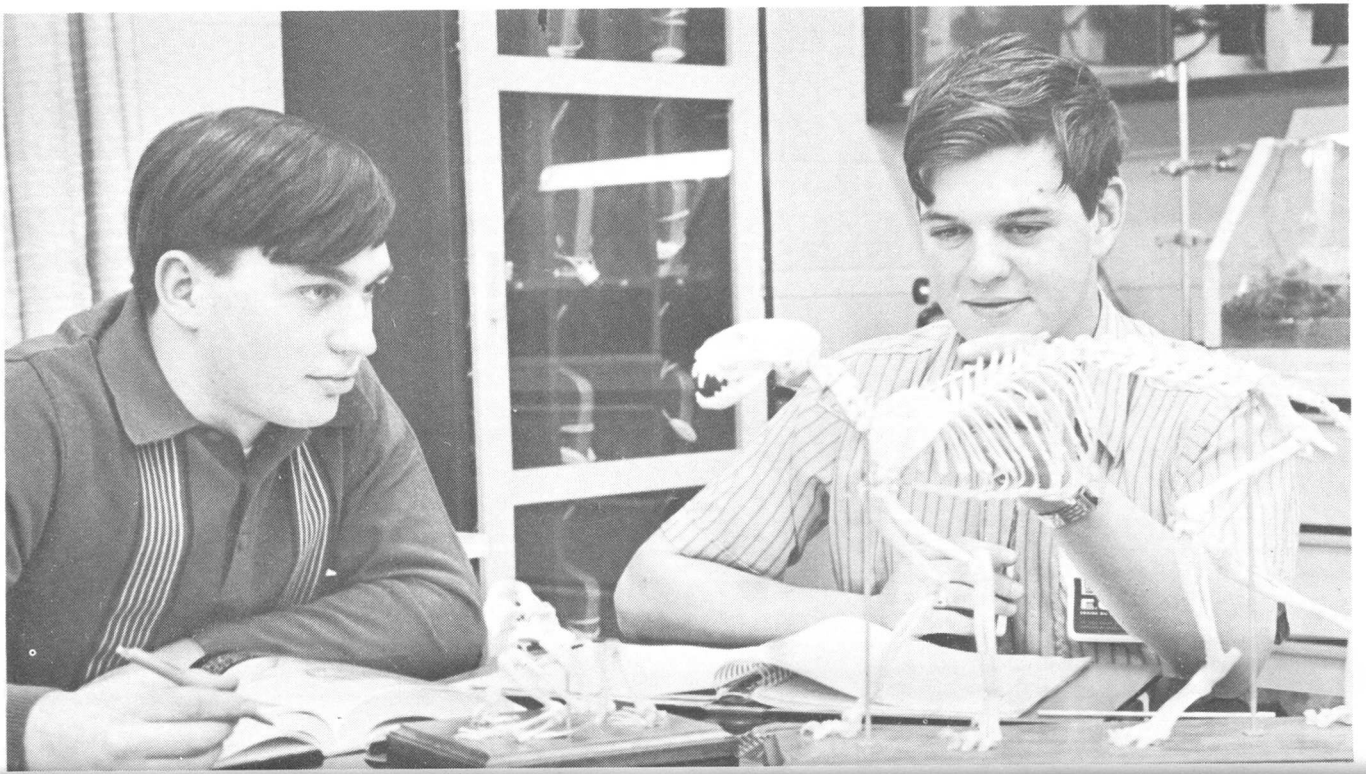
Express and Freight:

Express or freight may be forwarded to the Nova Scotia Agricultural College by either the Canadian National Railways or the Canadian Pacific Railways, since both lines maintain offices in Truro.

College Colors:

Royal Blue and Regular Gold.


NSRC



Churches:

The following churches, to which students are invited, are located in Truro and Bible Hill:

First Baptist Church
Immanuel Baptist Church
Zion Baptist Church
St. John's Anglican Church
St. George's Anglican Church
St. James Presbyterian Church
First United Church
Brunswick Street United Church
St. Andrew's United Church
St. David's United Church
Salvation Army
Calvary Pentecostal Church
Wesleyan Methodist Church
Church of the Immaculate Conception

CANADA STUDENT LOANS PLAN

The government of Canada makes available to students enrolled in the Degree and Technician Courses loans of up to $1000. in one year. Application for a certificate of eligibility must be made to the issuing authority of the province of residence of the applicant.

Borrowers under the plan are required to repay principal and pay interest, but no payments are required as long as they are full time students at a specified post-secondary educational institution.

Application forms for the Nova Scotians are available at the Department of Education, Box 578, Halifax, N. S. Residents of other provinces should apply to the issuing authority at their provincial capital.

STUDENT PLACEMENT SERVICE

The Placement Office provides vocational counselling and employment services to all students.

This office is staffed by one person on a full time basis as well as a Canada Manpower Representative who serves in a part time capacity.

In order to take advantage of the services offered, students seeking part time, summer or regular employment should register during the early fall.

RULES AND REGULATIONS

GENERAL REGULATIONS

All students are under the charge of the Principal and are responsible to him at all times for their conduct. The Principal is authorized to make such additional regulations as may be found necessary for the discipline of the College and to impose fines or other penalties for any infraction of rules and regulations.

All students are expected to attend all lectures, discussion groups, and laboratory periods, whether scheduled on the timetable or announced by the instructor. The members of the Faculty believe that a student for his own good should miss as few instructional periods as possible.

A student who arrives late for class may be refused admission.

All illnesses must be reported through the nurse to the Registrar's office.

Students wishing to absent themselves from classes for compassionate reasons must obtain permission from the Registrar or, in his absence, The Dean of Residence.

Students must not destroy, deface, or meddle with college property.

Tampering with fire protection equipment is forbidden.

Every student is expected to show, both within and without the college, such respect for order, morality and the rights of others and such sense of personal honour as is demanded of good citizens. Students found guilty of immoral, dishonest or improper conduct, violation of rules, or failure to make satisfactory progress, shall be liable to college discipline including: suspension from classes or residence, disqualification from competing for honours or prizes, or withdrawal from the College.

No smoking is allowed in classrooms or laboratories during regular class and laboratory hours, in the gymnasium or in the Dining Hall during regular meals.

Any form of disorderly conduct, drunkenness, or public display of intoxicating beverages is forbidden on campus and at all college functions.

Firearms which are to be kept on campus must be left at the owner's risk in the custody of the Dean of Residence.

Students are required to participate in approved orientation activities. All forms of initiation and hazing are forbidden.

Students found in unauthorized places on campus may be subject to immediate expulsion.

RESIDENCE REGULATIONS

Residence Regulations are to be found in the Student Handbook, a copy of which will be distributed to all students.

Students living out of residence must obey all residence rules and regulations while visiting in the residences.

Students will be required to provide their own towels, soap and drinking glass. Sheets, pillows, pillow cases, blankets and furniture will be provided by the College.

Students wishing accommodation for over night visitors in a residence must obtain permission from the Dean of Residence.

Meal tickets for single meals may be bought from the attendant at the door of the cafeteria.

Details of dress regulations will be given in the Student Handbook.

CAUTION AND LABORATORY DEPOSIT

Every student, at time of registration, must make a cash deposit of $20.00 with the Registrar to cover breakage.

Damage to floors, walls, doors, windows, lighting or furniture in any bedroom will be charged to the occupants of the room in equal shares, and damage to the common parts of the College and residences will be charged to the entire student body if the offender is not charged and punished. The sum charged in any case will be in excess of the amount necessary to repair the damage.

All caution deposits are subject to a general levy for untraceable breakage and damage to buildings and equipment.

This fee, less deductions, will be refunded within two months after the closing of the college year.

USE OF MOTOR VEHICLES

The operation of a motor vehicle while in residence at the College is a privilege which may be withdrawn at the discretion of the Principal.

Students in residence who bring motor vehicles to the campus or those who live in the surrounding area and are desirous of parking their vehicle on Campus must register the ownership of the vehicle, together with its license number, with the grounds superintendent or a body appointed by the Principal, at the opening of the academic year, or within three days after the vehicle is brought to campus.

Students are required to observe campus traffic and parking regulations. Fines are levied by the Principal or an

appointed body for failure to comply with these regulations.

TRAFFIC AND PARKING REGULATIONS

1. Any member of the College community – faculty, staff or student – who wishes to bring a vehicle on campus must have it registered.

2. Students will register vehicles at the time of registration and receive a sticker which is to be displayed on the lower right hand corner of the rear window of the vehicle. A $2.00 fee is charged for registration. Vehicles brought to campus during the year will be registered with the Grounds Superintendent.

3. Off campus students bringing vehicles to the campus will register their vehicles and park in their designated area and are subject to the same regulation as on campus students.

4. Freshman students will be assigned parking space at the paved parking lot next to the Poultry Building.

5. Faculty and staff will obtain registration forms and stickers from the Grounds Superintendent.

6. The specified parking areas which are to be used are noted on campus maps and by signs at parking locations.

7. The on campus student parking areas are designated as:
   (a) behind Chapman House,
   (b) parking lot at Poultry House,
   (c) behind Cumming Hall.
   All other areas which comprise the N. S. A. C. area are off limits to in residence student parking.

8. The parking and traffic regulations will be enforced by the Grounds Superintendent.

9. One week after registration, warnings will be issued to unregistered vehicle owners. Further violations of regulations shall be subject to a fine of $2.00 for a second

violation and $5.00 for a third or subsequent violation. Fines are payable at the college business office. Repeated offenders may have their cars removed and parking privileges suspended at the discretion of the parking committee.

REGISTRATION DEPOSIT

All unmarried students except those living at home will be required to live in one of the College dormitories unless special permission to live out has been granted through the Registrar's office.

Students for whom a room has been reserved in a dormitory are required to pay a deposit of $25.00, returning students before June 30 and new students as soon as they are asked for it.

An applicant for whom a room has been reserved and who finds it necessary to cancel his reservation will be refunded his deposit, provided that notice of cancellation reaches the Registrar's office not later than September 1.

MEDICAL EXAMINATION

New students at time of registration must be in possession of a medical certificate dated not more than 30 days previous to registration. If required, students must submit to further medical examinations upon request.

All candidates who are accepted will be sent a medical report form; should the form not be sent with the letter of acceptance, the candidate for admission should ask for one.

CONTAGIOUS OR INFECTIVE DISEASES

Students on holiday or accepted candidates for admission who become subject to an attack of any contagious or infective disease, or who reside in any dwelling in which any such disease exists, shall be subject to quarantine regulations approved by the medical profession.

In all cases of students, or accepted candidates for admission, suffering from, or coming in contact with those suffering from any contagious or infective disease, a medical certificate shall be required before they are allowed to return to the College.

RAILROAD FARES REFUNDED

Students from the Province of New Brunswick taking any two-year course will have one return railroad fare refunded to them each year by the New Brunswick Department of Agriculture. Such refund will be made at the close of the second term, provided that they have passed the requirements for the year. No application is necessary.

STUDENT GOVERNMENT

Through a system of self-government students are encouraged to accept the greatest possible amount of responsibility in connection with their own affairs. Only students taking regular courses are allowed to act as executive members of the Students' Council, or as members of student committees.

A committee of Faculty members, appointed by the Faculty to act in an advisory capacity, cooperates with student committees on financial, literary, social and athletic affairs in order that every possible benefit may be derived from such activities.

SOCIAL

The Students' Council each year appoints a Social Committee which directs the social activities of the College. Informal dances are held at regular intervals. These dances are planned and supervised by the Social Committee and two or more members of the Faculty.

The churches of the Town of Truro are very friendly and extend a welcome to all students attending the Agricultural College. The churches entertain the student body on many occasions during the college year and at these functions

pleasant associations are formed under very desirable auspices.

DEBATING SOCIETY

The Students' Debating Society conducts a series of interclass debates. The champions are awarded the Nova Scotia Department of Agriculture and Marketing debating trophy. The activities of the Society are a valuable supplement to the weekly public speaking classes.

ATHLETICS

The athletic program involves the following:

(a) Intramural athletics. The intramural program continues throughout the year with units of competition formed on a class basis. A variety of sports is offered including softball, soccer, hockey, basketball, and volleyball.

(b) Interscholastic athletics. The college is represented in the Nova Scotia Colleges Conference, a seven team athletic conference which directs interschool competition in soccer, basketball, and hockey. The college also competes on an interschool basis in the Woodsmen's Competition.

(c) Physical education. This is a program of "education through the physical".

ATHLETIC REGULATIONS

All students are eligible to play for teams representing the College, subject to the conditions of the Athletic Intercollegiate Athletic Association:

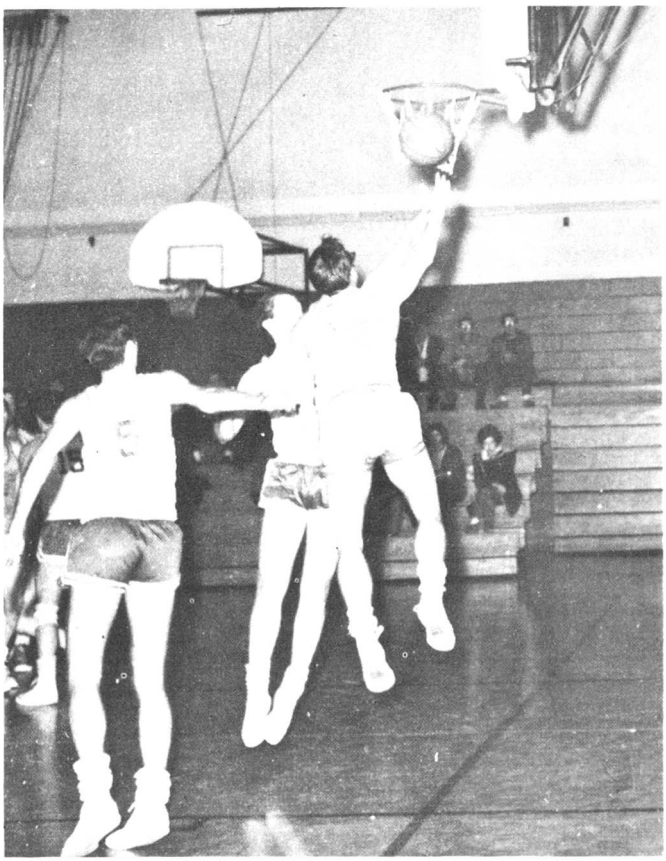
1. A student may not carry more than one subject from year to year.
2. Any first year subjects must be cleared prior to third year participation.
3. A student repeating a year and a transferred failed student are ineligible to play.
4. A student withdrawing at Christmas is ineligible to

participate until a year following the date of his withdrawal, providing at that time, the student has an academic record that permits his participation.

All teams or groups that go to any community or institution to participate in athletic or other activities must be accompanied by a member of the College staff.

OUTSIDE SPORTS

A student wishing to participate in athletics other than those sponsored by the College must apply in writing to, and



obtain permission from, the Principal before participating either as a player or an official.

Any expenses incurred through injury while playing in outside games will be the responsibility of the student concerned, and will not be the responsibility of the students' medical fund.

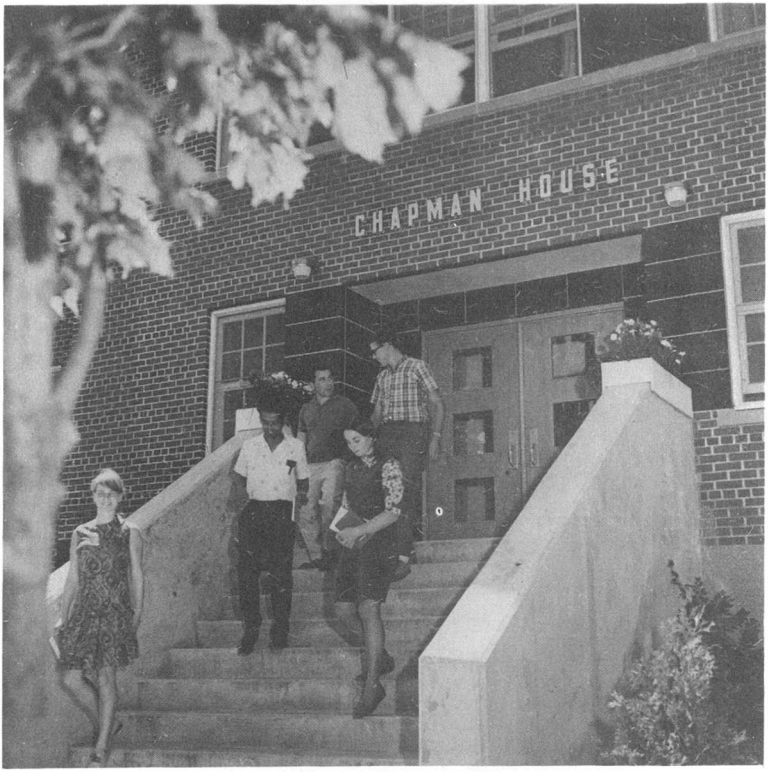
Students who lose time from classes due to participating in outside games will not receive an attendance credit for the time lost.

THE COLLEGE WINTER FAIR

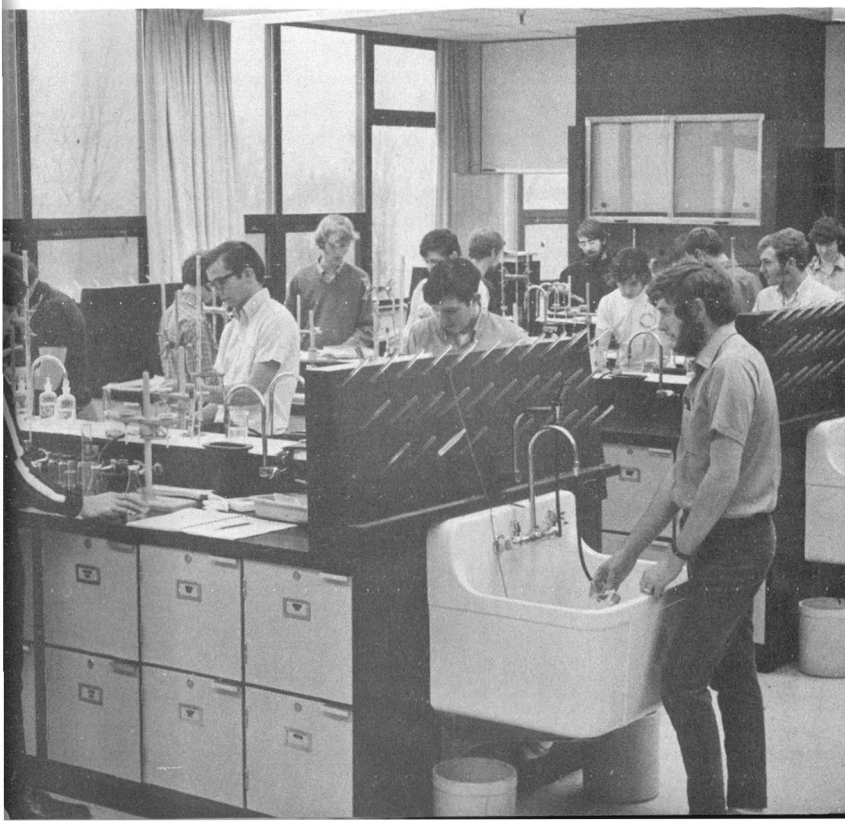
During each College year, the students put on a College Winter Fair, or College Royal, as it is frequently called. The show is a competition in fitting and showmanship rather than a contest among the horses, cattle, sheep, swine and poultry used in the exhibition.

In addition to livestock classes, the show also features competition in Agronomy, Horticulture and Farm Management and a series of educational demonstration booths.

The program and show are administered by students who hold the various offices necessary for the satisfactory operation of an exhibition.


CHAPMAN HOUSE

DEGREE COURSES



DEGREE COURSES

The Nova Scotia Agricultural College offers the first two years of a four year course leading to a degree in Agricultural Science and the first three years of a five year course leading to a degree in Agricultural Engineering. Most of its graduates in Agricultural Science complete the work for a degree at Macdonald College of McGill University, the University of Guelph or the University of Maine. Most of its graduates in Agricultural Engineering proceed to the Nova Scotia Technical College for the final two years. Qualified graduates may be considered for admission to the course in veterinary medicine offered by the University of Guelph.

Graduates in Agricultural Science may choose from a wide variety of disciplines in their final two years: economics, the pure sciences, agricultural science, the environmental sciences and food science.

THE COLLEGE DIPLOMA

Students who complete the prescribed number of credits with no mark below fifty per cent of the maximum mark obtainable and who are in good standing will be granted a Degree Course Diploma. The Diploma confers upon recipients the status of "Associate of the Nova Scotia Agricultural College".

In Agricultural Science, a high honours diploma will be awarded to a student who has attained an average of eighty per cent or better on the work of the two years and an honours diploma to one who has attained an average of at least seventy-five per cent.

In Agricultural Engineering, a high honours diploma will be awarded to a student who has attained an average of eighty per cent or better on the work of the second and third years and an honours diploma to one who has attained an average of at least seventy-five per cent.

ENTRANCE REQUIREMENTS

All candidates for admission must:

(a) be at least sixteen years of age on or before the opening day of the College year;
(b) be of good moral character;
(c) present a satisfactory medical certificate dated not more than thirty days prior to registration;
(d) present certificates showing an average of at least 60% with no mark below 50% in Grade XII (*Nova Scotia 012 or New Brunswick 121 or 122 or their equivalent) English, Mathematics, Chemistry, Biology or Physics and one additional subject.

*Graduates of Prince Edward Island Grade XII may apply and have their standing assessed on its merits.

Graduates of Newfoundland Grade XI will be required to take the foundation year at Memorial University in the subjects mentioned above.

Candidates for admission who have not written provincial examinations on the work of the final high school year and who are submitting school marks must offer the results of SACU or comparable tests.

SUPPLEMENTAL EXAMINATIONS

A student who fails in more than half of the total number of full courses of an academic year or who attains an average of less than fifty per cent on the work of an academic year may not write supplemental examinations. A term course is rated as half a course.

Provided that the disqualifying conditions stated above are not applicable, a student who makes between thirty per cent and forty-nine per cent in any subject may write a supplemental examination. Supplemental examinations will be written at the end of June and just before registration day in September. A maximum of two supplemental examinations

will be permitted in any subject. No supplemental examination will be permitted in any subject after two years have elapsed following the original failure.

Application for permission to write a supplemental examination in June must be submitted before June 10 and for permission to write in September before August 20.

The fee for the first supplemental examination will be $5.00. Should a second examination be necessary, the fee will be $10.00. No supplemental examination is to be written until the required fee has been paid. Should a candidate for a supplemental examination not give notice and pay the required fee on time but present himself for an examination, he may, at the discretion of the Registrar and the Instructor, be permitted to write upon payment of $20. per examination.

SYLLABUS

AGRICULTURAL SCIENCE

(Students in the second or third year in 1972-73 and 1973-74 should refer to the 1971-72 calendar).

The requirement for a diploma is completion of Semesters I and II, English 250, and sufficient additional credits to make up a total of at least sixty-two credits.

SEMESTER I (Required)	Credits
English 200 (Modern Literature and Writing)	3
Mathematics 100 (Calculus I)	3
Chemistry 100 (Principles)	3
Biology 101 (Botany)	3
Plant Science 100 (Principles of Crop Production)	3
*Biology 100	
*Physics 100	

*If both Biology and Physics were satisfactorily completed in Grade XII (N. S., N. B.) or its equivalent, an elective course may be chosen. All first year students must elect one of several Physical Education programs offered.

SEMESTER II (Required)	Credits
Economics 150 (Principles of Economics)	3
Mathematics 150 (Calculus II)	3
Chemistry 150 (Introductory Organic)	3
Biology 150 (Zoology)	3
Animal Science 150	3
Physics 150	3

SEMESTERS III & IV	Credits
Agriculture 150 (History of Agriculture)	2
Engineering 252 (Surveying)	2
Engineering 203 (Farm Mechanization)	2
Engineering 202 (Farm Structures)	3
Animal Science 200 (Selected studies in Animal Science)	3
Biology 200 (Cell Biology)	3
Biology 202 (Microbiology for Engineers)	3
Biology 250 (Microbiology)	3
Biology 255 (Plant Physiology)	3
Biology 302 (Principles of Ecology)	2
Chemistry 200 (Biochemistry I)	3
Chemistry 151 (Principles of Soil Science)	3
Chemistry 250 (Biochemistry II)	3
Economics 250 (Economics of Agriculture)	3
Economics 200 (Principles of Marketing)	3
Economics 101 (Accounting)	3
Economics 204 (Production Economics)	3
Economics 254 (Farm Management)	3
English 250 (Canadian Literature and Public Speaking)	3
Genetics 200 (Introduction to Genetics)	3
Genetics 250 (Advanced Genetics)	3
Mathematics 200 (Statistics and Experimentation)	3
Physics 200 (Advanced Physics)	3
Plant Science 250 (Greenhouse and Floriculture)	3
Sociology 100, 150 or 151	3
Philosophy 100 (Introduction to Philosophy)	3
Communications 255 (Communications, Extension Methods)	3

SYLLABUS

AGRICULTURAL ENGINEERING

(Students in the second or third year in 1972-73 and 1973-74 should refer to the 1971-72 calendar).

The requirement for a diploma is successful completion of all courses listed.

SEMESTER I

Biology 101 (Botany)
Chemistry 102 (Engineering Chemistry I)
English 200 (Modern Literature and Writing)
Mathematics 100 (Calculus I)
Physics 102
Plant Science 101

SEMESTER II

Biology 150 (Zoology)
Chemistry 152 (Engineering Chemistry II)
Economics 150 (Introductory)
English 250 (Canadian Literature and Public Speaking)
Mathematics 150 (Calculus II)
Physics 152

SEMESTER III

Engineering 200 (Graphics)
Engineering 201 (Introductory Statics)
Engineering 202 (Structures)
Engineering 203 (Agricultural Mechanization)
Mathematics 201 (Mathematics for Engineers I)
Physics 201
Biology 202 (Microbiology)

SEMESTER IV

Engineering 250 (Descriptive Geometry)
Engineering 251 (Advanced Statics)
Engineering 252 (Surveying)

Mathematics 251 (Mathematics for Engineers II)
Animal Science 150
Physics 251

SEMESTER V

Engineering 300 (Strength of Materials)
Engineering 301 (Dynamics of Particles)
Engineering 302 (Fluid Mechanics)
Mathematics 300 (Differential Equations I)
Mathematics 200 (Statistics)
Physics 300 (Electric Circuits I)
Economics 200 (Economics of Agriculture)

SEMESTER VI

Engineering 350 (Advanced Strength of Materials)
Engineering 351 (Dynamics of Rigid Bodies)
Engineering 352 (Thermodynamics)
Mathematics 350 (Differential Equations II)
Physics 350 (Electric Circuits II)
Chemistry 151 (Principles of Soil Science)

DESCRIPTION OF COURSES

The following courses are arranged for the 1972-1973 academic year. The Faculty reserves the right to make any revisions or additions which may be necessary.

Agriculture 150: **History of Agriculture**
Instructor: **Mr. Shuh**

A study of the development of agriculture from its earliest beginnings to the present day, with special emphasis on the effects these developments have had on the history of mankind.

Spring Semester – 2 lecs. per week

Animal Science 150: **Introductory Animal Science**
Instructor: **Animal Science Staff**

An introduction to the principles of commercial animal agriculture. Topics covered include: breeding systems, physio-

logy of reproduction and lactation, animal nutrition, a survey of animal agriculture and applied management skills.

Spring Semester – 3 lecs. and 2 labs per week

Text: Campbell and Lasley, THE SCIENCE OF ANIMALS THAT SERVE MANKIND

Animal Science 200: **Selected Studies in Animal Science**

A non-structured course offering students the opportunity to study, in depth, one aspect of Animal Science. Instruction will be by selected texts, informal discussion and practical experience. Suggested areas of study are: dairy cattle production, beef cattle production, sheep production, swine production, poultry production, animal breeding systems and animal nutrition.

Fall Semester – 3 lecs. per week

Biology 100: **Principles of Biology**

An introduction to Biology and laboratory work, with emphasis on the basic biological concepts to give an understanding of the organization and operation of biological systems. These will include the requirements, acquisition, utilization and transfer of energy, basic structure and coordination of activities, reproduction, genetics and evolution.

Fall Semester – 3 lecs. and 4 labs per week

Text: Gerking, BIOLOGICAL SYSTEMS

Biology 101: **The Plant Kingdom**

An evolutionary review of the plant kingdom with the classification, morphology and life cycles of representatives of the algae, fungi, bryophytes and tracheophytes. Special attention will be given to the fungi with an introduction to plant pathology. The Angiosperms will be briefly considered, with a review of the evolution and history of our flora.

Fall Semester – 3 lecs. and 4 labs per week

Biology 150: **The Animal Kingdom**
Instructor: **Mr. Neary**

A review of the animal kingdom with reference to the structure and biology of the Protozoa and various metazoan

phyla; important aspects of entomology, animal parasitism, life histories, elements of vertebrate embryology, animal ecology and evolution.

Spring Semester – 3 lecs. and 4 labs per week
Text: Storer and Usinger, GENERAL ZOOLOGY

Biology 200: **Cell Biology**
Instructor: **Mr. Porth**

An introduction to the structure and function of procaryotic and eucaryotic cells. Emphasis will be placed on the ultrastructure and biochemical significance of cellular organelles. Topics to be considered will include bioenergetics, biosynthesis of macromolecules, regulation of metabolic processes, photosynthesis, glycolysis, respiration, membranes, the nerve impulse, contraction in skeletal muscle and vision.

Fall Semester – 3 lecs. per week
Text: Loewy and Siekevitz, CELL STRUCTURE AND FUNCTION

Biology 202: **Microbiology for Engineers**
Instructor: **Mr. Porth**

A general survey of the microbial world with emphasis on types of microorganisms, naming, structure, methods of culturing, growth and nutrition, methods of control, and relation to disease in man and plants. Special attention will be given to the microbiology of water, sewage, air, milk, foods and soil. The role of microorganisms in pollution and industry will be discussed.

Fall Semester – 2 lecs. per week

Biology 250: **Microbiology**
Instructor: **Mr. Porth**

A general introduction to microbiology. Topics will include history, the principles of morphology, physiology, classification, genetics and methods of culture and isolation. The relation of microorganisms to agriculture, industry, veterinary science, public health and sanitation will be discussed.

Spring Semester – 3 lecs. and 1 lab per week
Text: Carpenter, MICROBIOLOGY, (3rd edition)

Biology 255: **Plant Physiology**

A study of the different functions of the plant, including respiration and photosynthesis, mineral and nitrogen nutrition, water relations and translocation of solutes, plant orientation, development and reproduction.

Spring Semester – 3 lecs. and 2 labs per week
Text: to be announced

Biology 302: **Principles of Ecology**

An introductory course to give ecological principles at the level of the individual, the population and the community. The interactions between organisms and the physical environment will be discussed; along with the various types of communities that will be found in the Atlantic Provinces.

Fall Semester – 3 lecs. per week
Text: Odum, FUNDAMENTALS OF ECOLOGY

Chemistry 100: Chemical Principles
Instructor: Mr. MacConnell

A study of atomic theory, periodicity, chemical reactions, geometrical form of molecules and chemical equilibrium. Also included is an extensive study of the chemistry of solutions of weak electrolytes.

Fall Semester—3 lecs. and 4 labs. per week
Text: Masterson and Slowinski, CHEMICAL PRINCIPLES

Chemistry 102: **Engineering Chemistry I**
Instructor: **Mr. MacLean**

A study of solid, liquid and gaseous fuels, nuclear power, atmospheric pollution, lubrication and lubricants, brake fluid and antifreeze and the chemistry of their application to engineering problems.

Fall Semester – 3 lecs. and 4 labs per week
Text: Munroe, CHEMISTRY IN ENGINEERING

Chemistry 150: **Organic Chemistry**
Instructor: **Mr. Hawley**

Prerequisite: **Chemistry 100**

A study of basic classes of organic compounds including alkanes, alkenes, alkynes, petroleum and petrochemicals, cycloparaffins, alcohols, aldehydes, ketones, alkyl halides, monocarboxylic acids, acid halides, acid anhydrides, salts, amides, ethers and amines.

Spring Semester – 3 lecs. and 4 labs per week

Text: Morrison and Boyd, ORGANIC CHEMISTRY (2nd edition)

Chemistry 151: **Introduction to Soil Science**
Instructor: **Mr. Langille**
Prerequisite: **Chemistry 150, 100**

The general principles of soil science relating to origin, development and classification of soils, the physical and chemical properties of soils as related to crop production and plant nutrition, soil management, and land use.

Spring Semester – 3 lecs. and 3 labs per week

Text: Buchman and Brady, THE NATURE AND PROPERTIES OF SOILS (7th edition)

Chemistry 152: **Engineering Chemistry II**
Instructor: **Mr. MacLean**
Prerequisite: **Chemistry 102**

A study of the engineering topics; rust and corrosion, plastics, elastomers, protective coatings, uses and requirements of domestic and industrial water, sewage disposal and explosives.

Spring Semester – 3 lecs. and 4 labs per week

Text: Munroe, CHEMISTRY IN ENGINEERING

Chemistry 200: **Biochemistry I**
Instructor: **Mr. MacConnell**
Prerequisite: **Chemistry 150**

A classical study of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins, hormones and enzymes.

Spring Semester—3 lecs. and 4 labs. per week

Text: West and Todd, TEXTBOOK OF BIOCHEMISTRY (4th edition)

Chemistry 250: **Biochemistry II**
Instructor: **Mr. MacConnell**

Enzyme kinetics and mechanisms of enzyme action, biological oxidation and reduction, bioenergetics, metabolism of carbohydrates, triglycerides and nitrogen balance, selected biosynthesis and metabolism control mechanisms.

Spring Semester – 3 lecs. and 4 labs per week
Text: West, Todd, Mason and Van Bruggen, TEXTBOOK OF BIOCHEMISTRY (4th edition)

Communications 255: **Extension Methods**
Instructor: **Communications staff**

A study of the principles and methods of Extension work. The course will include rural sociology, program development, leadership training and communication skills. Emphasis will be placed on acquainting the student with the methods used in carrying out Extension programs. Considerable attention will be given to the area of effective communication associated with extension programs.

Spring Semester – 3 lecs. per week

Economics 101: **Basic Managerial Accounting**
Instructor: **Mr. Arnfast**

This course is designed to provide a background of accounting information that is useful to management in the recognition and solution of management problems. Emphasis will be placed on the interpretation of financial statements. Both lectures and case material are used in the course.

Fall Semester – 1 lec. and 2 labs per week
Text: to be chosen

Economics 150: **Principles of Economics**
Instructor: **Mr. Doran**

An introduction to the study of Economics. The course is designed to acquaint the student with the main elements of economic theory; a great deal of emphasis is placed on the application of theory in the Canadian economy. The main

topics covered are: The Economic Problem and the Evolution of our Market Economy, National Income Analysis, Money and Banking, The Price System and Resource Allocation. Other topics such as International Trade, Economic Growth and Economic Development are examined in less detail.

Spring Semester – 3 lecs. per week
Text: Heilbroner, THE ECONOMIC PROBLEM

Economics 200: **Principles of Marketing**
Instructor: **Mr. Doran**

The nature and importance (functions) of the agricultural marketing system; review of the micro-economic theory basis of markets and market prices; market structures; marketing margins and efficiency; marketing organizations; provincial and federal government jurisdiction and policies; types and uses of marketing studies; the marketing of the major agricultural commodities in Canada.

Fall Semester – 3 lecs. per week

Economics 204: **Production Economics**
Instructor: **Mr. Gunn**

A study of the economic principles and methods of analyzing production and resource use in agriculture. Decision making by means of economic theory, linear programming, and budgeting, is emphasized.

Fall Semester – 2 lecs. and 4 labs per week

Economics 250: **Economics of Agriculture**
Instructor: **Mr. Doran**

A study of the Agricultural Sector of the Atlantic Region vis-à-vis agriculture in Canada as a whole; agricultural development and policies affecting agriculture. This includes the analysis of historical patterns, agricultural resource base, current problems and opportunities for economic growth in agriculture in the Region. The major emphasis is placed on the search for a meaningful Agricultural Policy and for development programs through which the objectives of this policy might be realized.

Spring Semester – 3 lecs. per week

Economics 254: **Farm Management**
Instructor: **Mr. Gunn**

The principles and methods of analyzing and organizing farm and farm-related businesses are examined. Practical problems associated with size of business, balance in organization, labor efficiency, and production systems, are included. Sources of Capital and techniques in managing each category of credit are studied. Farm accounting, business analysis and budgeting are included.

Spring Semester – 2 lecs. and 2 labs per week

English 200

Selected readings from British and American authors. Essay writing.

Fall Semester – 3 lecs. per week

English 250

Selected readings from Canadian authors. Public speaking.

Spring Semester – 3 lecs. per week

Engineering 200: **Principles and Applications of Orthagonal Projection**
Instructor: **Dr. Gilkie**

Freehand sketching and instrument drawing are used to explore the fundamental principles of projection and to apply these to the solution of problems of orthographic projection in descriptive geometry as required by the design process. Emphasis is placed on the application of graphical techniques to the solution of engineering problems.

Fall Semester – 1 lec. and 3 labs per week
Text: A. S. Levens, GRAPHICS-ANALYSIS AND CONCEPTUAL DESIGN

Engineering 201: **Introductory Statics**
Instructor: **Mr. MacAulay**

This course deals with a study of forces acting on particles and on rigid bodies in two and three dimensions with equilibrium and distributed forces (centroics and centers of gravity). The Vector approach is used and Vector methods

are used in problem solution.

Fall Semester – 2 lecs. and 1 lab per week

Text: Beer & Johnson, VECTOR MECHANICS FOR ENGINEERS: STATICS, McGraw-Hill (latest edition)

Engineering 202: **Farm Structures**
Instructor: **Mr. Adams**

An introduction to farmstead design, layouts and plans, environmental conditions and the functional requirements of structures for product storage and livestock will be given. Construction methods and material standards will also be considered.

Fall Semester – 2 lecs. and 2 labs per week

Reference text: FARM BUILDING STANDARDS

Engineering 203: **Agricultural Mechanization**
Instructor: **Mr. Clark**

Modern crop production equipment is studied with a view to understanding the function of the machine as a unit and as part of the production system. The capacity as well as the costs associated with different machinery management systems will be investigated.

Fall Semester – 1 lec. and 2 labs per week

Text: Bainer, Kepner and Barger, PRINCIPLES OF FARM MACHINERY

Reference Text: Smith, FARM MACHINERY AND EQUIPMENT

Engineering 250: **Graphics in Design**
Instructor: **Dr. Gilkie**

Graphical techniques are applied to vector analysis of design problems and to the presentation of design data. Design practices are investigated and used in student projects aimed at developing creativity in the design process.

Spring Semester – 1 lec. and 3 labs per week

Text: A. S. Levens, GRAPHICS-ANALYSIS AND CONCEPTUAL DESIGN

Engineering 251: **Advanced Statics**
Instructor: **Mr. MacAulay**

A continuation of Engineering 201 dealing with analysis of structures, frames and machines, forces in beams, friction, moments of inertia and method of virtual work.

Spring Semester – 2 lecs. and 1 lab per week

Text: Beer & Johnson, VECTOR MECHANICS FOR ENGINEERS: STATICS, McGraw-Hill (latest edition)

Engineering 252: **Surveying**
Instructor: **Mr. MacAulay**

This course covers the use and adjustment of surveying instruments, measurements of distance, differential and profile levelling in transit traverses and running simple curves.

Spring Semester – 2 lecs. and 2 labs per week

(May require up to a week after exam in field exercises depending on weather during the term.)

Text: Kissam, SURVEYING PRACTICE

Engineering 300: **Strength of Materials**
Instructor: **Mr. Saxon**
Prerequisite: **Engineering 201**

An introduction to engineering materials and their properties. The stress-strain relationship for tension, compression and shear, the shear, bending moment and deflection in beams are topics covered. Emphasis is placed on problem solving.

Fall Semester – 3 lecs. per week

Text: Higdon, Ohlsen, Stiles, Weese, MECHANICS OF MATERIALS, (2nd edition)

Engineering 301: **Dynamics of Particles**
Instructor: **Mr. MacAulay**

A course dealing with rectilinear and curvilinear motion of particles, kinetics of particles, force mass and acceleration, work and energy, impulse and momentum.

Fall Semester – 2 lecs. and 1 lab per week

Text: Beer & Johnson, VECTOR MECHANICS FOR ENGINEERS: DYNAMICS, McGraw-Hill

Engineering 302: **Fluid Mechanics**
Instructor: **Mr. MacAulay**

A study of physical properties of liquids and gases, fluid statics and fluid flow including pressure, manometry, hydrostatic forces, stream lines and tubes, continuity, momentum, Bernoulli equation, flow measurement, friction and Reynolds number.

Fall Semester – 2 lecs. and 2 labs per week
Text: Streeter, FLUID MECHANICS, (5th edition), McGraw-Hill

Engineering 350: **Strength of Materials**
Instructor: **Mr. Saxon**

The course consists of the analytical treatment of torsion in shafts, statically indeterminate beams, columns and combined stresses. Use is made of testing facilities to demonstrate the properties of materials.

Spring Semester – 3 lecs. per week
Text: Higdon, Ohlsen, Stiles, Weese, MECHANICS OF MATERIALS, (2nd edition)

Engineering 351: **Dynamics of Rigid Bodies**
Instructor: **Mr. MacAulay**

A course dealing with Kinematics and Kinetics of rigid bodies; forces, accelerations, energy and momentum methods are studied. Introduction to Kinetics in three dimensions and elementary mechanical vibrations.

Spring Semester – 2 lecs. and 1 lab per week
Text: Beer & Johnson, VECTOR MECHANICS FOR ENGINEERS: DYNAMICS, McGraw-Hill

Engineering 352: **Thermodynamics**
Instructor: **Mr. MacAulay**
Prerequisite: **Mathematics 251 and Physics 251**

A study of the conservation of energy and mass in flow and non-flow systems and processes, application of the first and second laws in cycles using ideal gases and vapours. Including the properties of liquids and vapours, processes and cycles.

Spring Semester – 2 lecs. and 2 labs per week
Text: VanWylen & Sonntag, FUNDAMENTALS OF CLASSI-

CAL THERMODYNAMICS, Wiley
Mark, THERMODYNAMICS, Prentice Hall

Genetics 200: **Introduction to Genetics**
Instructor: **Dr. PadmaNathan**
Prerequisite: **Biology 100**

Study of heredity and variation in plants and animals, including man; the relationships of genetics to evolution and breeding practices.

Fall Semester – 2 lecs. and 2 labs per week
Text: Strickberger, GENETICS

Genetics 250: **Advanced Genetics**
Instructor: **Dr. PadmaNathan**
Prerequisite: **Genetics 200**

A detailed study of the genetic material, gene action and population genetics with emphasis on agricultural applications of genetic knowledge.

Spring Semester – 3 lecs. and 2 labs per week
Tests: Strickberger, GENETICS
Brewbaker, AGRICULTURAL GENETICS

Mathematics 100: **Calculus and Analytic Geometry I**
Instructor: **Mr. Fraser**

A study of limit and the derivative with applications to maxima and minima, velocity and acceleration; differentiation of the trigonometric, exponential and logarithmic functions. Topics from Analytic Geometry are covered at appropriate stages throughout the course.

Fall Semester – 3 lecs. per week
Text: Goodman, ANALYTIC GEOMETRY AND THE CALCULUS

Mathematics 150: **Calculus and Analytic Geometry II**
Instructor: **Mr. Fraser**

A continuation of Mathematics 100 dealing mainly with the integral calculus. Both definite and indefinite integrals will be studied with applications to areas, volumes, hydrostatic pressure and work. The final part of this course will deal with sequences and series. As in the case of Mathematics

100, topics from Analytic Geometry will be covered at appropriate stages of this course.

Spring Semester – 3 lecs. per week

Text: Goodman, ANALYTIC GEOMETRY AND THE CALCULUS

Mathematics 200: **Statistics and Agricultural Experimentation**
Instructor: **Dr. PadmaNathan**
Prerequisite: **Mathematics 100**

Descriptive statistics; normal frequency distributions; probability; statistical inference; binomial, poisson and chi-square distributions; tests of significance; regression and correlation; sampling; planning of experiments; analysis of variance of simple, factorial and split-plot designs.

Fall Semester – 3 lecs. per week

Text: Steele and Torrie, PRINCIPLES AND PROCEDURES OF STATISTICS

Mathematics 201: **Mathematics for Engineers I**
Instructor: **Mr. Fraser**
Prerequisite: **Mathematics 100, 150**

A more rigorous study of the theory of limit, the derivative and the integral together with a study of infinite series, curves, vectors, polar coordinates, three-dimensional analytic geometry and an introduction to computer programming.

Fall Semester – 3 lecs. per week

Text: Johnson and Kiokemeister, CALCULUS WITH ANALYTIC GEOMETRY

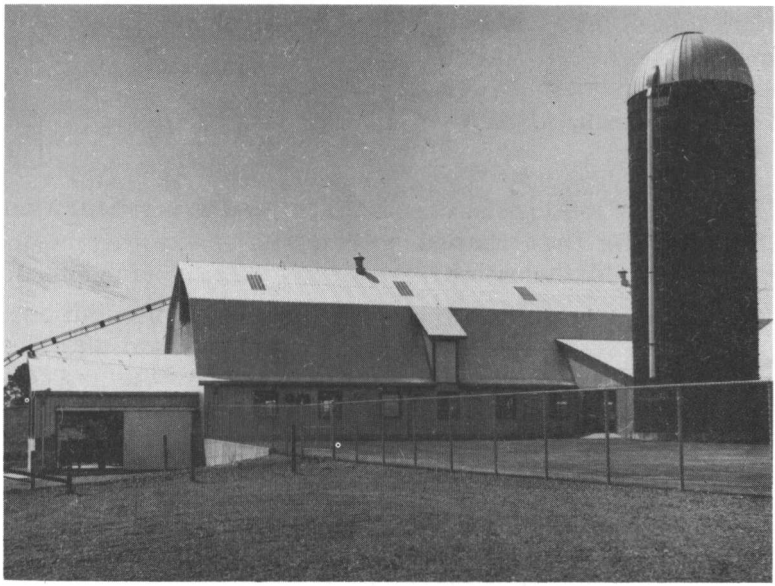
Mathematics 251: **Mathematics for Engineers II**
Instructor: **Mr. Fraser**
Prerequisite: **Mathematics 100, 150**

A continuation of Mathematics 201 covering differential calculus of functions of several variables, multiple integration and linear algebra.

Spring Semester – 3 lecs. per week

Text: Johnson and Kiokemeister, CALCULUS WITH ANALYTIC GEOMETRY

Mathematics 300: **Differential Equations I**



Instructor: **Mr. Fraser**
Prerequisite: **Mathematics 201, 251**

A study of differential equations covering methods of solution of first and second order equations in some detail, applications to problems in various fields, series solutions, higher order linear equations and Laplace Transforms.

Fall Semester – 3 lecs. per week
Text: Boyce and DiPrima, ELEMENTARY DIFFERENTIAL EQUATIONS AND BOUNDARY VALUE PROBLEMS.

Mathematics 350: **Differential Equations II**
Instructor: **Mr. Fraser**
Prerequisite: **Mathematics 201, 251**

A continuation of Mathematics 300 dealing with systems of equations, numerical methods, boundary value problems, Fourier series and an introduction to partial differential equations.

Spring Semester – 3 lecs. per week
Text: Boyce and DiPrima, ELEMENTARY DIFFERENTIAL EQUATIONS AND BOUNDARY VALUE PROBLEMS.

Philosophy 100: **Logic and Philosophical Methods**

An introduction to the basic techniques of logic and philosophical methods.

Fall Semester – 3 lecs. per week

Physics 100: **Introductory Physics**
Instructor: **Mr. Smith**

An introductory course for those not having any previous physics. This course covers mechanics, heat, light and sound.

The laboratory emphasizes the experimental foundations of physics, and gives the student an appreciation of the scientific method.

Fall Semester – 3 lecs. and 4 labs per week

Physics 102
Instructor: **Mr. Saxon**

An introductory course for Engineers covering statics, kinematics, dynamics, conservation of energy, conservation of momentum, gas law, thermal properties of matter and mechanical properties of matter. Basic theories are developed and verified through experimental laboratory exercises.

Fall Semester – 3 lecs. and 4 labs per week

Physics 150: **Modern Physics**
Instructor: **Mr. Smith**

A treatment of the conceptional foundations including mass, length, time, kinematics, Newtons' laws, frames of reference, relative motion including Galileon Relativity and Special Relativity, Momentum, energy, and the conservation principle and the conceptional foundations.

The quantum nature of energy and an introduction to quantum mechanics, an investigation of the nucleus, with regard to nuclear structure, binding energy, and nuclear size. Nuclear reactions, particles and fission are discussed.

Spring Semester – 3 lecs. and 4 labs per week

Physics 152
Instructor: **Mr. Saxon**
Prerequisite: **Physics 102**

An introductory course covering wave motion, sound, electricity and magnetism, light and selected topics in modern physics.

Use is made of calculus in the solving of physical problems.

Spring Semester – 3 lecs. and 4 labs per week

Physics 200: **Electrical Phenomena**
Instructor: **Mr. Smith**

This course deals with electrical and magnetic effects starting with electric fields, capacitance and motion of changes in electric fields. Electric circuits and currents are taken up, along with magnetic fields, and production of magnetic fields, and induced emfb.

Electrical measurements and measuring devices are investigated, along with alternating currents and circuits.

Fall Semester – 3 lecs. and 4 labs per week

Physics 201
Instructor: **Mr. Saxon**

A course for second year engineering students making use of calculus for development of theory and problem solving. Topics include statics, plane motion, work and energy, harmonic motion and hydrodynamics. Laboratory exercises are designed to give the student opportunity to apply the scientific method to verification of phenomena.

Fall Semester – 3 lecs. and 4 labs per week
Text: Sears & Zemansky, UNIVERSITY PHYSICS, (4th edition)

Physics 251
Instructor: **Mr. Saxon**
Prerequisite: **Physics 201**

A course for second year engineering students covering heat measurement, heat transfer, thermodynamics, wave motion, acoustics, light, optics.

Spring Semester – 3 lecs. and 4 labs per week
Text: Sears & Zemansky, UNIVERSITY PHYSICS, (4th edition)

Physics 300: **Electric Circuits I**
Instructor: **Mr. Smith**
Prerequisite: **Mathematics 200**

Physics of electric fields, potential, capacitance, motion of ions in electric fields, current and resistance, Kirchoff's laws and analysis of D. C. circuits, solution of circuits by cyclic currents, superposition, reciprocity and Thevenin's Theorem and applications, D. C. measuring instruments and methods.

Fall Semester – 3 lecs. and 2 labs per week

Physics 350: **Electric Circuits II**
Instructor: **Mr. Smith**
Prerequisite: **Mathematics 200**

The magnetic field, Ampere's Law, Faraday's Law, Inductance, Magnetic properties of Matter, alternating currents, alternating current circuit analysis, including complex impedance, series and parallel circuits, power and power factor, resonance.

Spring Semester – 3 lecs. and 2 labs per week

Plant Science 100: **Principles of Crop Production**
Instructor: **Dr. Bubar**

General principles underlying adaptation, improvement, culture and utilization of agronomic and horticultural crop plants. Special attention is paid to crops grown in the Atlantic Provinces with laboratory work on individual crops and discussion of principles in relation to the crops grown in the region.

Fall Semester – 3 lecs. and 2 labs per week

Plant Science 101: **General Plant Science**
Instructor: **Mr. Shuh**

An introductory course in plant science for engineering students. The course will deal with the identification and production of some of the more common crop plants. Special attention will be given to the problems related to seeding, cultivation and harvesting of these crops.

Fall Semester – 2 lecs. and 2 labs per week

Text: Martin and Leonard, PRINCIPLES OF FIELD CROP PRODUCTION

Plant Science 250: **Greenhouse Crop Production and Floriculture**
Instructors: **Dr. Wray and Mr. Badcock**

Construction and equipment of greenhouses and related structures. Principles and practices of propagation, culture, storage and marketing of greenhouse vegetables and florist crops.

Spring Semester – 3 lecs. and 2 labs per week

Sociology 100
Instructor: **Mr. MacEachern**

A comprehensive study of community structure will be made. The relationships between technology, environment, and human values, morals, and decision making are considered.

Fall Semester – 3 lecs. per week
Texts: Shinn, R., THE TANGLED WORLD
Keeling, M., MORALS IN A FREE SOCIETY
and other assigned readings

Sociology 150
Instructor: **Mr. MacEachern**

Through assigned readings and in lectures, students are given an insight into basic sociological concepts. Emphasis is placed upon man's antiquity, man's nature and man in community with concern for some of the issues confronting contemporary society including an examination of specific sub-cultures.

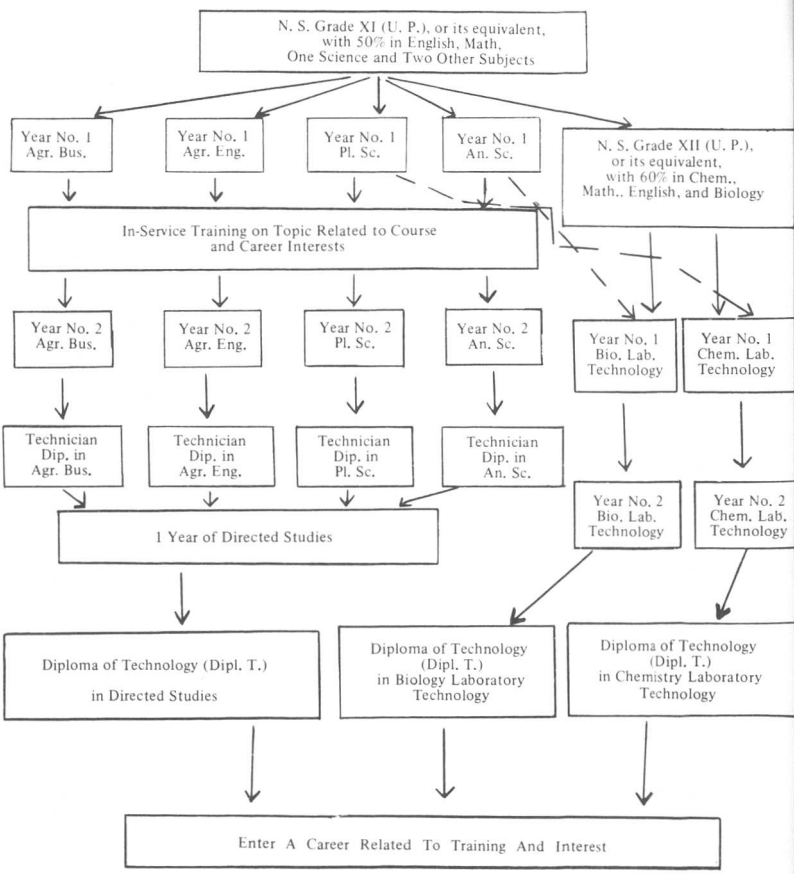
Spring Semester – 3 lecs. per week
Texts: Shinn, R., THE TANGLED WORLD
Adams, I., THE POVERTY WALL
Frankl, V., MAN'S SEARCH FOR MEANING
and other assigned readings

TECHNICIAN AND TECHNOLOGY COURSES

TECHNICAL COURSES

To satisfy the needs of the farm and farm-related businesses and services, the Nova Scotia Agricultural College offers a broad program of studies leading to Technician Diplomas and Diplomas of Technology.

TECHNICAL STUDIES
AT
THE NOVA SCOTIA AGRICULTURAL COLLEGE



1. TECHNICIAN COURSES

Entrance Requirements

All candidates for admission

(a) should be eighteen years of age, on or before the opening day of the College year (mature younger candidates will be considered);

(b) must present a satisfactory medical certificate dated no more than thirty days previous to registration; and

(c) must present evidence for the following academic prerequisites that refer to the candidate's home province.

(i) Nova Scotia:

Grade XI (University Prep.) including English, Mathematics, one science, and two other subjects. Students with Grade XII marks above 60% in English, Mathematics, Biology or Chemistry may ask for credit in corresponding subjects.

(ii) New Brunswick:

The high school program must contain satisfactory completion of Grade XII English, as well as Mathematics, one science, and two additional subjects at the 112 level or higher. Students with marks above 60% in 121 or 122 level Mathematics, English, Biology or Chemistry may ask for credit in corresponding subjects.

(iii) Prince Edward Island:

Grade XII (University Prep.) including English, Mathematics, one science, and two other subjects, or satisfactory completion of a foundation program at Holland College.

(iv) Newfoundland:

Grade XI (University Prep.) including English, Mathematics, one science, and two other subjects.

(v) Applicants of mature age or from general course programs can be considered if they give evidence of probable success.

Applicants should understand that possession of the minimum entrance requirements will not guarantee admission.

Students who complete all the course requirements with no mark below fifty per cent of the maximum mark obtainable and are in good standing will be awarded a Technician Diploma and thus become "Associates of the Nova Scotia Agricultural College with all the rights and privileges pertaining thereto."

A high honours diploma will be awarded to a student who has attained an average of at least eighty per cent and an honours diploma to one who has attained an average of at least seventy-five per cent.

Refresher Course

Candidates whose preparation is not considered adequate may be required to enrol for a refresher course in one or more subjects which will be offered from August 28 to September 8. The additional cost will be for books and for board and lodging only.

Supplemental Examinations

A student in a Technician Course may write supplemental examinations in a maximum of three full subjects if his combined average for all subjects is above 50% and the mark in the failed subject (s) is at least 30%. A term subject will be rated as a half subject.

He may not register for the regular second academic year

if he, after writing supplementals, has failed to receive a pass mark in more than two subjects.

A maximum of two supplementals will be permitted in each failed subject. No supplemental examination will be permitted in any subject after two years have elapsed following the original failure.

Application for permission to write a supplemental examination in June must be submitted before June 10 and for permission to write in September before August 20.

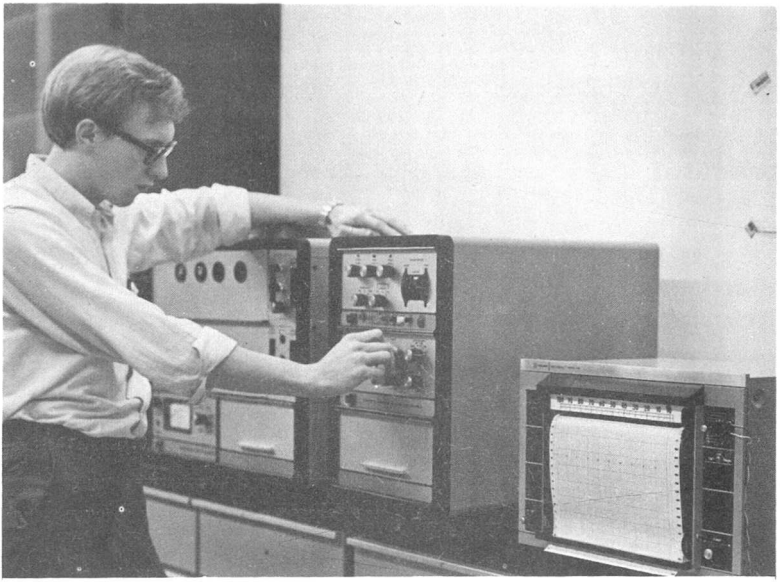
The fee for a first supplemental examination in any subject will be $5.00 and for a second $10.00. Should a candidate for a supplemental examination not give notice and pay the required fee on time but present himself for an examination, he may, at the discretion of the Registrar and the Instructor, be permitted to write upon payment of a fee of $20. per examination.

Financial Assistance

A living allowance of $15.00 per week will be provided for Prince Edward Island students in good standing from Federal-Provincial funds if an application is made to the Director of Extension, Department of Agriculture, Charlottetown, at as early a date as possible. The allowance will be credited, by the College, to each student's account at the beginning of the first and second terms.

A. AGRICULTURAL BUSINESS

The Nova Scotia Agricultural College offers a two year course in Agricultural Business to help students prepare themselves for careers on the farm as business managers, or as managers and supervisors in farm-related business firms. The course is composed of both on campus instruction and in service training.



AGRICULTURAL BUSINESS SYLLABUS

FIRST ACADEMIC YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
E 10	English	3		3	
M 10	Appliable Mathematics	3		3	
C 11	Soils (Physics and Chemistry)	2	2	2	2
C 10	Basic Chemistry	2	2	2	2
B 10	Biology	2	4	2	4
AE 10	Agricultural Engineering	2	2	2	2
AB 10	Accounting	2	2	3	
AB 11	Economics	3		1	2
	Physical Education (Elective program to be arranged)				
AB 12(b)	Work Simplification – one week				

PERIOD OF IN-SERVICE TRAINING

At least four hundred hours of in-service training will be required prior to the commencement of the second academic year. The College will make every effort within its power

to assist a student with a satisfactory standing to obtain appropriate work experience. A student on in-service training will earn a salary during the training period.

SECOND ACADEMIC YEAR

		First Term Lec.	Lab.	Sec. Term Lec.	Lab.
100	Sociology	3			
150	Sociology			3	
	or				
151	Sociology			3	
204	Economics	2	4		
AB 21(a)	Applied Marketing	One day per week			
254	Economics			2	2
250	Economics			3	
AB 23(a)	Government and Law	3			
AE 20	Power and Machinery	2	2	2	2
PS 20	Field Crops Production	2	2	2	2
PS 26	Vegetable Production	To be decided			
	or				
AS 10	Livestock Production	3	2	3	2
	Projects				

B. ANIMAL SCIENCE

The Nova Scotia Agricultural College offers a two year course in Animal Science to help students prepare themselves for careers on farms as animal specialists or as animal science technicians in farm-related services and industries. The course is composed of both on campus instruction and in-service training.

ANIMAL SCIENCE SYLLABUS

FIRST ACADEMIC YEAR

		First Term Lec.	Lab.	Sec. Term Lec.	Lab.
E 10	English	3		3	
M 10	Appliable Mathematics	3		3	
C 10	Basic Chemistry	2	2	2	2
C 11	Soils (Physics and Chemistry)	2	2	2	2

		First Term Lec.	Lab.	Sec. Term Lec.	Lab.
B 10	Biology	2	4	2	4
AE 10	Agricultural Engineering	2	2	2	2
AS 10	Livestock Production	3	2	3	2
AS 11(b)	Animal Husbandry Skills				2
	Physical Education (Elective program to be arranged)				
AB 12(b)	Work Simplification – one week				

PERIOD OF IN-SERVICE TRAINING

At least four hundred hours of in-service training will be required prior to the commencement of the second academic year. The College will make every effort within its power to assist a student with a satisfactory standing to obtain appropriate work experience. A student on in-service training will earn a salary during the training period.

SECOND ACADEMIC YEAR

		First Term Lec.	Lab.	Sec. Term Lec.	Lab.
100	Sociology	3			
150	Sociology			3	
	or				
151	Sociology			3	
PS 20	Field Crops Production	2	2	2	2
AS 24(b)					
AS 21(a)	Milk and Dairy Products	2	2		
AS 23(b)	Meat and Livestock Products			2	2
AS 27(a)	Animal Physiology	2	2		
AS 28(b)	Animal Pathology			2	2
AS 24	Animal Breeding			3	
AE 20	Power and Machinery	2	2	2	2
AB 11	Economics	3		1	2
AS 20(a)	Animal Nutrition	3	2		
AS 22(a)	Breeds and Selection	1	2		
AS 25(b)	Seminar			1	
	Projects				

C. PLANT SCIENCE

The Nova Scotia Agricultural College offers a two year course in Plant Science to help students prepare themselves for careers on farms as plant specialists or as plant science technicians in farm-related services and industries. The course is composed of both on campus instruction and in-service training.

PLANT SCIENCE SYLLABUS

FIRST ACADEMIC YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
E 10	English	3		3	
M 10	Appliable Mathematics	3		3	
C 11	Soils (Physics and Chemistry)	2	2	2	2
C 10	Basic Chemistry	2	2	2	2
B 10	Biology	2	4	2	4
AE 10	Agricultural Engineering	2	2	2	2
AB 11	Economics	3		1	2
	or				
AB 10	Accounting	2	2	3	
B 11(b)	Entomology			2	2
	Physical Education (Elective program to be arranged)				
AB 12(b)	Work Simplification – one week				

PERIOD OF IN-SERVICE-TRAINING

At least four hundred hours of in-service-training will be required prior to the commencement of the second academic year. The College will make every effort within its power to assist a student with a satisfactory standing to obtain appropriate work experience. A student on in-service-training will earn a salary during the training period.

SECOND ACADEMIC YEAR

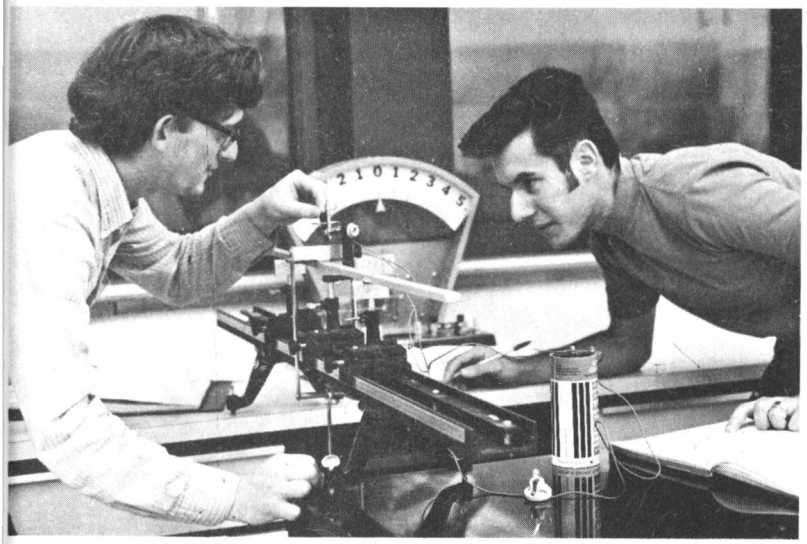
		First Term Lec.	Lab.	Sec. Term Lec.	Lab.
100	Sociology*	3			
150	Sociology*			3	
	or				
151	Sociology*			3	
B 20(a)	Plant Identification*	2	2		
B 22(a)	Plant Physiology*			2	2
PS 22(b)	Plant Propagation*			1	2
B 21(b)	Plant Pathology*			2	1
AE 20	Power and Machinery*	2	2	2	2
	Projects*				
PS 23	Landscaping**	1	2	1	2
PS 24	Greenhouse Crops Production**	1	2	1	2
AE 21(b)	Electrical Controls**			1	3
PS 26	Vegetable Production**		To be decided		
PS 21(b)	Fruit Production**			2	4
PS 20	Field Crops Production**	2	2	2	2
AE 15(a)	Surveying**	1	2		
AE 26(a)	Soil and Water Management**	2	2		
PS 25	Turf Management**	2	2	2	2

* Required Subjects

** Subjects involving a minimum of eight additional lecture hours per week per year to be selected from this group in consultation with the instructor in the principal field of interest and the Dean of Vocational and Technical Training.

D. AGRICULTURAL ENGINEERING

The Nova Scotia Agricultural College offers a two year course in Agricultural Engineering to help students prepare themselves for careers as Agricultural Engineering technicians in farm-related firms and services. The course is composed of both on campus instruction and in-service-training.



AGRICULTURAL ENGINEERING SYLLABUS

FIRST ACADEMIC YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
E 10	English	3		3	
M 10	Appliable Mathematics	3		3	
C 11(a)	Soils (Chemistry and Physics)	2	2		
AB 11	Economics	3		1	2
M 11	Physics	2	2	2	2
AE 11(b)	Properties of Materials			1	2
AE 12	Drafting		3		3
PS 10	Plant Science	2	2	2	2
AE 13	Shopwork	1	4	1	4
AE 15(a)	Surveying	1	2		
	Physical Education (Elective program to be arranged)				
AB 12(b)	Work Simplification – one week				

PERIOD OF IN-SERVICE TRAINING

At least four hundred hours of in-service-training will be required prior to the commencement of the second academic year. The College will make every effort within its power

to assist a student with a satisfactory standing to obtain appropriate work experience. A student on in-service-training will earn a salary during the training period.

SECOND ACADEMIC YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
100	Sociology	3			
150	Sociology			3	
	or				
151	Sociology			3	
AE 22	Farm Biuldings	2	4	2	4
AE 23	Farm Power	2	4	2	4
AE 24	Farm Machinery	2	4	2	4
AE 25(b)	Hydraulics			2	2
AE 21(b)	Electrical Controls			1	3
AS 10	Livestock Production	3	2	3	2
	Projects				
AE 26(a)	Soil and Water Management	2	2		

DESCRIPTION OF COURSES

The following descriptions of all subjects in the four courses leading to Technician Diplomas are arranged in order of subject groups. The Faculty reserves the right to make any revisions or additions which may be necessary. The duration of lecture and laboratory periods is 45 minutes.

AB 10: **Accounting**
Instructor: **Mr. Arnfast**

Basic accounting procedures are stressed. Actual project work with farm and farm-related business records helps the student to better understand inventories, assets, liabilities, owner's equity, changes in owner's equity, working capital, record book organization, preparing monthly statements, and closing the books. Accounting techniques for several forms of business organizations are examined. Some time is devoted to banking procedures and payroll bookkeeping.

The interpreting of financial records for income tax and Canada Pension plan purposes is covered. By making comparisons of actual balance sheets, the financial structure, variations in current position, and several trends are identified. The importance of records for management decisions is stressed.

Pl. Sc. (elective),

Agr. Bus., 1st year, 1st term – 2 lecs. and 2 labs per week; 2nd term – 3 lecs. per week

AB 11: **Economics**
Instructor: **Mr. Tait**

This course studies the historical development of the Canadian economy. The student is introduced to the basic concepts of National Income, banking, public monetary and fiscal policy and trade. The development and structure of Canadian and Atlantic Region agriculture are studied.

The importance and costs of each function comprising the entire marketing process are examined. The course includes a study of consumer and supplier behaviour, pricing, price stability in various types of market structures, an examination of the various kinds of business organizations involved with marketing decisions, bargaining power, and the administration of quality control systems.

An. Sc., 2nd year, 1st term – 3 lecs. per week; 2nd term – 1 lec. and 2 labs per week
Pl. Sc. (elective), Agr. Eng., Agr. Bus., 1st year, 1st term – 3 lecs. per week; 2nd term – 1 lec. and 2 labs per week

Text: Still and Cundiff, ESSENTIALS OF MARKETING
Reference Book: Kohls, MARKETING OF AGRICULTURAL PRODUCTS

AB 12 (b): **Work Simplification**

This is a practical course in the organized use of common sense to find an easier and better way to do a job and avoid waste of time, money, materials, equipment and other important factors.

Agr. Bus., An. Sc., Pl. Sc., Ag. Eng., 1st year, 1 week – time to be arranged

204: **Economics (Production Economics)**
Instructor: **Mr. Gunn**

A study of the economic principles and methods of analyzing production and resource use in agriculture.

Decision making by means of economic theory, linear programming, and budgeting is emphasized.

Agr. Bus., 2nd year, 1st term – 2 lecs. and 4 labs per week

254: **Economics (Farm Management)**
Instructor: **Mr. Gunn**

The principles and methods of analyzing and organizing farm and farm-related businesses are examined. Practical problems associated with size of business, balance in organization, labor efficiency, and production systems, are included. Sources of Capital and techniques in managing each category of credit are studied. Farm accounting, business analysis and budgeting are included.

Agr. Bus., 2nd year, 2nd term – 2 lecs. and 2 labs per week

AB 21 (a): **Applied Marketing**
Instructors: **Mr. Doran and Mr. Tait**

Students visit a series of marketing organizations to learn the nature and extent of their operation, and the involvement of the organization in other segments of the agricultural industry. Causes of waste, spoilage, and low quality, and how costs of marketing are established are determined in several of the visits. Managers of the marketing organizations visited assist in the instruction.

Agr. Bus., 2nd year, 1st term – 1 day per week

250: **Economics**
Instructor: **Mr. Doran**

This is a study of the influence of government on Agriculture, including the effects of both agricultural and non-

agricultural policies. Some of the current adjustments in Atlantic agriculture will be identified.

Agr. Bus., 2nd year, 2nd term – 3 lecs. per week

AB 23 (a): **Government and Law**
Instructor: **Mr. MacLeod**

Fundamental concepts of our Canadian parliamentary system of government are studied. Contemporary political problems in Canada are identified.

Several special contracts relating to employment and the transfer of property are examined.

Agr. Bus., 2nd year, 1st term – 3 lecs. per week
Texts: Saywell and Ricker, HOW ARE WE GOVERNED?
Chapman, FUNDAMENTALS OF CANADIAN LAW

AE 10: **Introduction to Agricultural Engineering**
Instructor: **Mr. Townsend**

Lectures include a study of farm structures as we find them today. Special emphasis is placed on layouts, materials of construction, environmental control, water systems and farmstead mechanization.

The course also deals with electricity as it is used to produce heat, light and power on the farm.

Laboratory periods include instruction in the use of drafting instruments, lettering, orthographic drawing and sketching, isometric drawing and sketching, sections, reading blueprints, and computing bills of materials. Tours are conducted of farm buildings to substantiate the material covered in lectures.

Agr. Bus., An. Sc., Pl. Sc., 1st year, both terms – 2 lecs. and 2 labs per week
Text: Ashby, Dodge, Shedd, MODERN FARM BUILDINGS

AE 11 (b): **Properties of Materials**
Instructor: **Mr. Adams**

The characteristics, requirements and selection of various materials including metals, plastics, lumber and concrete are studied and the standards and tests applied to these materials

considered. The reaction of materials to various conditions of use including loading are investigated.

Ag. Eng., 1st year, 2nd term – 1 lec. and 2 labs per week

AE 12: **Drafting**
Instructor: **Mr. Townsend**

A course which helps the student develop his skills in using drawing instruments, drafting machines, printing machines, tracing tables, planimeters, etc.

Lettering, orthographic drawing and sketching, pictorial drawings and sketching, sections and developments are studied.

The course concludes with practice in working drawings, contours and profile exercises, map reading and computing areas.

Ag. Eng., 1st year, both terms – 3 labs per week

AE 13: **Shopwork**
Instructor: **Mr. Townsend**

The selection, maintenance and operation of workshop tools including power grinders, metal and wood lathes, sheet metal tools, portable wood working and metal working tools, acetelyene, electric and spot welding equipment along with the commonly used hand tools. Identification and heat treatment of metals will also be studied.

Ag. Eng., 1st year, both terms – 1 lec. and 4 labs per week

AE 15 (a):**Surveying**
Instructor: **Mr. MacAulay**

An introduction to surveying methods and instruments including practice measuring horizontal and vertical distances as well as angles are investigated. Construction surveying and note keeping are emphasized.

Pl. Sc., 2nd year, 1st term; Ag. Eng., 1st year, 1st term – 1 lec. and 2 labs per week

Text: Kissam, SURVEYING PRACTICE (latest edition)

AE 20: **Power and Machinery**
Instructors: **Mr. Clark and Mr. Taylor**

An introduction to the operation, maintenance and selection of farm machinery used in modern agriculture. Tillage, application and harvesting equipment along with tractor power units and their hydraulic systems will be studied.

Ag. Bus., An. Sc., Pl. Sc. 2nd year, both terms – 2 lecs. and 2 labs per week

AE 21 (b): **Electrical Controls**
Instructor: **Mr. Townsend**

This is a study of electrical controls and various types of switches such as limit, micro, mercury, remote control, photoelectric, etc.

The application of temperature and humidity controls for plant and animal environment.

Ag. Eng., Pl. Sc., 2nd year, 2nd term – 1 lec. and 3 labs per week

AE 22: **Farm Buildings**
Instructor: **Mr. Adams**

The design of livestock and service buildings, farmstead and building layouts, beam and truss selection, environmental control, lighting requirements, water supply and materials handling systems are studied. Emphasis is placed on the solution of practical problems. Tours of modern farmsteads will be arranged whenever possible.

Ag. Eng., 2nd year, both terms – 2 lecs. and 4 labs per week

AE 23: **Farm Power**
Instructor: **Mr. Taylor**

History and development of heat engines. The adjustment, maintenance and repair of farm diesel and gasoline engines are studied. The principles of operation and servicing of various types of tractor clutches, transmissions and differentials are investigated.

Ag. Eng., 2nd year, both terms – 2 lecs. and 4 labs per week

AE 24: **Farm Machinery**
Instructor: **Mr. Clark**

The selection, care and operation of tillage, application and harvesting equipment are studied along with farmstead and crop processing equipment. The cost of owning and operating modern field machinery systems is investigated.

Ag. Eng., 2nd year, both terms – 2 lecs. and 4 labs per week

AE 25 (b): **Hydraulics**
Instructor: **Mr. MacAulay**

The basic theory of operation and performance of hydraulic pumps, control valves, cylinders and motors. Emphasis is placed on the operating characteristics of hydraulic equipment and its selection for agricultural use.

Ag. Eng., 2nd year, 2nd term – 2 lecs. and 2 labs per week

AE 26 (a): **Soil and Water Management**
Instructor: **Mr. MacAulay**

In this course emphasis is placed on land drainage, irrigation systems, water storage structures and erosion control measures. Laboratory periods include practice in using surveying instruments and irrigation equipment and solving associated problems.

Pl. Sc., Ag. Eng., 2nd year, 1st term – 2 lecs. and 2 labs per week

AS 10: **Livestock Production**
Instructor: **Dr. Curtis**

An introduction to animal agriculture with emphasis on dairy cattle, beef cattle, sheep, hogs and poultry. The course will include general aspects of the breeding, feeding, management and economics of these species.

An. Sc., 1st year, both terms; Agr. Bus., Ag. Eng., 2nd year, both terms – 3 lecs. and 2 labs per week

AS 11 (b): **Animal Husbandry Skills**
Instructor: **Dr. Curtis**

Practical experience in the handling of animals and related equipment. In addition to the formal laboratory periods, students will be assigned to participate in the activities of the various animal units.

An. Sc., 1st year, 2nd term – 2 labs per week

AS 20 (a): **Animal Nutrition**
Instructor: **Dr. Cock**

This is a study of the various commonly used feedstuffs with respect to their nutrient content and feeding value. The nutrient requirements of farm livestock and the balancing of rations to meet growth, production and reproduction needs are covered. A comparative study of ruminant and monogastric digestion is made.

An. Sc., 2nd year, 1st term – 3 lecs. and 2 labs per week

AS 21 (a): **Milk and Dairy Products**
Instructor: **Mr. Chant**

Studies in the composition and properties of milk and

its products with consideration of the processes of pasteurization, homogenization and quality control.

An. Sc., 2nd year, 1st term – 2 lecs. and 2 labs per week

AS 23 (b): **Meat and Livestock Products**
Instructor: **Dr. Curtis**

The basic science of meat, wool and eggs with emphasis on their marketing and processing for retail consumption.

An. Sc., 2nd year, 2nd term – 2 lecs. and 2 labs per week

AS 22 (a): **Breeds and Selection**
Instructor: **Mr. Mathewson**

A study of the history of livestock selection and a consideration of the present breeds. Laboratory periods will emphasize live animal appraisal and a familiarization with common livestock breeds and strains.

An. Sc., 2nd year, 1st term – 1 lec. and 2 labs per week

AS 24 (b): **Animal Breeding**
Instructor: **Mr. Mathewson**

In this course the theoretical and practical application of inheritance in the breeding and selecting of animals is studied.

An. Sc., 2nd year, both terms – 3 lecs. per week

AS 25 (b): **Animal Science Seminar**
Instructors: **Animal Science Staff**

Students will meet weekly to report on and discuss Animal Science related topics. Students will be encouraged to report on their projects.

An. Sc., 2nd year, 2nd term – 1 lec. per week

AS 27 (a): **Animal Physiology**
Instructor: **Dr. Crober**

This course considers the fluids of the body, circulation, respiration, digestion, absorption, excretion, energy exchange, muscular activity, neurology, endocrinology and reproduction of domestic animals.

An. Sc., 2nd year, 1st term – 2 lecs. and 2 labs per week

AS 28 (b): **Animal Pathology**
Instructor: **Dr. Mowbray**

Systems of sanitation and hygiene, promoting good health, are discussed. The causes, symptoms, prevention, control of common animal diseases and ailments outlined.

An. Sc., 2nd year, 2nd term – 2 lecs. and 2 labs per week

B 10: **Biology**
Instructor: **Mr. Eaton**

This is a study of the biological principles that are most important in agriculture. The structure, growth and reproduction of both plants and animals are discussed, with an introduction to the study of genetics. The role of organic cycles, the relationship of plants and animals to their environment, the regulation of growth and development, and nutrition are included.

Agr. Bus., An. Sc., Pl. Sc., 1st year, both terms – 2 lecs. and 4 labs per week

B 11 (b): **Entomology**
Instructor: **Mr. Neary**

This course deals with the economic aspects of insects and other animal type pests, with special reference to the Atlantic provinces. Structure, growth, reproduction, distribution and other factors involving control are considered.

Pl. Sc., 1st year, 2nd term – 2 lecs. and 2 labs per week

B 20 (a): **Plant Identification**

A course covering the classification and naming of plants with special attention given to plants of economic importance. These include the common weeds, trees and shrubs, and cultivated plants. The important plant families will be considered, along with laboratory work in identification.

Pl. Sc., 2nd year, 1st term – 2 lecs. and 2 labs per week
Text: Jacques, HOW TO KNOW THE WEEKS

B 21 (b): **Plant Pathology**
Instructor: **Mr. Porth**

An introduction to the nature, cause and control of plant diseases due to bacteria, fungi, nematodes and viruses. Emphasis will be placed on the infection process, resistance, mechanisms, relation of environment to disease, development and methods of control. Representative diseases of plants caused by the above organisms will be discussed.

Pl. Sc., 2nd year, 2nd term – 2 lecs. and 1 lab per week
Text: Agrios, PLANT PATHOLOGY

B 22 (a): **Plant Physiology**
Instructor: **Miss Levy**

More advanced study of the structure of plants and how they live, grow and reproduce. The various plant processes such as photosynthesis, respiration, absorption, nutrition, transpiration and growth are included, along with a study of the various factors that influence the growth and economic production of crops.

Pl. Sc., 2nd year, 2nd term – 2 lecs. and 2 labs per week
Text: Galston, THE LIFE OF THE GREEN PLANT

C 10: **Basic Chemistry**
Instructor: **Mr. Hawley**

A study of elements, compounds, atomic structure, bonding, and why reactions occur, is followed by a study of some specific reactions such as oxidation and reduction, neutralization and ionization; an introduction to Organic and Biochemistry. The basic chemical properties of some organics will be examined and related to the agricultural industry.

Agr. Bus., An. Sc., Pl. Sc., 1st year, both terms – 2 lecs. and 2 labs per week
Text: Siebring, CHEMISTRY (1967)
Laboratory Manual: King, et al – LAB MANUAL FOR COLLEGE CHEMISTRY (latest edition)
Suggested Reference Books:
1. Quagliano, CHEMISTRY (3rd edition)
2. Frey, COLLEGE CHEMISTRY (3rd edition)

3. Sturchioetal: CHEMISTRY – PRINCIPLES AND CONCEPTS – 1966.

C 11: **Soils (Physics and Chemistry)**
Instructor: **Mr. Langille**

The physical properties of soils are examined with special emphasis on soil profiles, soil textures, particle size, soil moisture, water retention, compaction, soil air, soil temperature, drainage, erosion, and tillage. Several types of Atlantic Provinces soil are examined.

The chemical properties of soil particles and solutions are studied as well as principal chemical reactions in soils. The function of soil as a medium to support plant life, fertilizing, liming, pH and plant nutrients are stressed. The selection, use, and effects of various chemical additives to the soil are discussed.

Agr. Bus., An. Sc., Pl. Sc., 1st year, both terms – 2 lecs. and 2 labs per week

Ag. Eng., 1st year, 1st term – 2 lecs. and 2 labs per week

Reference Texts: Miller, Turk and Foth, FUNDAMENTALS OF SOIL SCIENCE
Miller, SOIL FERTILITY
Donahue, SOILS

Laboratory Manual: Prepared mimeographed sheets

E 10: **English**
Instructor: **Mr. Delaney**

This course is designed to enable the student to be a more effective communicator, both in writing and speaking. A study of some modern literature and the involvement in practical laboratory sessions will help the student to realize this goal.

In addition to the basic texts the student will read and report on samples of modern writing of his own selection, readings from the Agdex files and other Agricultural Journals.

The oral communications section of the course consists in laboratory sessions and reading, in the art of public speaking, small group discussions and the chairmanship of public meetings.

Students requiring help in basic English grammar will receive it. Students who are capable of independent study and research will have the opportunity to do so.

Ag. Eng., Agr. Bus., An. Sc., Pl. Sc., 1st year; both terms – 3 lecs. per week

Texts: McCarthy, CANADIAN PERSPECTIVES
Miller, DEATH OF A SALESMAN
Steinbeck, THE WINTER OF OUR DISCONTENT
Thurston, THE PREPARATION OF TERM PAPERS AND REPORTS

M 10: **Appliable Mathematics**
Instructor: **Mr. Buckler**

Fractions, percentage, simple equations and word problems are reviewed and the slide rule and electronic calculator are introduced. The essentials of Algebra, Analytic Geometry and Trigonometry, introductory basic Calculus and some elements of computer programming are covered. Emphasis is placed on finance problems involving interest, discounts, mortgages, consumer loans, etc.

Agr. Eng., Agr. Bus., An. Sc., Pl. Sc., 1st year, both terms – 3 lecs. per week

Text: Washington, BASIC TECHNICAL MATHEMATICS

M 11: **Physics**
Instructor: **Mr. Buckler**

A course designed to give students background in the basic physical principles employed in such applied fields as structures, machine design and operation, electric power applications and controls, etc.

Laboratory instruction is a part of the course, permitting the student to perform elementary experiments which demonstrate the principles he is studying, and to develop techniques of solving physical problems.

Ag. Eng., 1st year, both terms – 2 lecs. and 2 labs per week

Text: Pollock, APPLIED PHYSICS

Physical Education

Instructor: **Mr. Marchant**

That phase of education concerned with the teaching of skills and attitudes in play activities. A program providing each student with an opportunity to develop skill and understanding in a variety of sport activities that will serve him throughout life, and with unique opportunities in developing desirable character and social traits as well as defined responsibilities toward the physical development of the individual. The development of these traits, plus the objectives of increased strength and endurance, better motor skills, and improved health practices are the desirable outcomes of the physical education program.

Ag. Eng., Agr. Bus., An. Sc., Pl. Sc., 1st year (Elective program to be arranged)

Projects

This is an opportunity to examine in detail specific agricultural topics of interest to the students. Projects will be organized and carried out by the students under the supervision of various staff members.

Ag. Eng., Agr. Bus., An. Sc., Pl. Sc., 2nd year, both terms – time to be arranged

PS 10: **Plant Science for Agricultural Engineers**
Instructor: **Dr. Bubar**

Selected topics in elementary botany, choice of crops, seeds and seeding, crop management, weed control, harvesting, processing and preservation of important crop species.

Ag. Eng., 1st year, both terms – 2 lecs. and 2 labs per week

Recommended reference text: Martin and Leonard, PRINCIPLES OF FIELD CROP PRODUCTION

PS 20: **Field Crops Production**
Instructor: **Dr. Bubar**

A study of grasses, legumes and other crops used in a forage program. Production, management, harvesting, storage and utilization practices suited to the various crops are studied.

The development of forage programs is undertaken. The production, harvesting and storing of the common cereals are studied, along with their agronomic uses. Consideration is given to other Canadian crops not grown in the Atlantic region.

Agr. Bus., An. Sc., Pl. Sc., 2nd year, both terms – 2 lecs. and 2 labs per week

Text: Martin and Leonard, PRINCIPLES OF FIELD CROP PRODUCTION

PS 26: **Vegetable Production**
Instructor: **Dr. Wray**

PS 21 ~~(b)~~ (a): **Fruit Production** Shoemaker
Instructor: **Mr. Badcock** Badcock

This course includes both small fruit culture and tree fruits. The practices involved in the production of strawberries, blueberries, raspberries, blackberries, currants, gooseberries and cranberries and the practices carried out in orchard operations are studied.

Pl. Sc., 2nd year, ~~2nd~~ 1st term – 2 lecs. and 4 labs per week

PS 22 (b): **Plant Propagation**
Instructor: **Mr. Badcock**

This course considers the production of plants by both seed and vegetative methods. It includes a detailed study of seed germination and the advantages and disadvantages of this type of reproduction as compared to vegetative reproduction including graftage, layerage, separation and division. A study of seeding and potting composts, rooting mediums and propagating structures and associated equipment is also made.

Pl. Sc., 2nd year, 2nd term – 1 lec. and 2 labs per week

PS 23: **Landscaping**
Instructor: ~~**Mr. Johnson**~~ John Morley

This course deals with ornamental plant materials, their identification, culture and maintenance and their use in landscaping planning. Subjects covered include trees, shrubs, lawns, bulbs, annual and perennial flowers.

Pl. Sc., 2nd year, both terms – 1 lec. and 2 labs per week

PS 24: **Greenhouse Crops Production**
Instructor: **Mr. Badcock**

This course deals first with the types of houses in which crops are presently grown and the associated heating plants and controls. The general practices involved in successful operation such as heating, ventilation, watering, fertilizing, leaching, spraying, and sterilizing are studied. The culture of the individual greenhouse vegetable crops and the important florist crops is also covered in detail both in the classroom and the associated greenhouses.

Pl. Sc., 2nd year, both terms – 1 lec. and 2 labs per week

PS 25: **Turf Management**
Instructor: ~~**Mr. Morley**~~ John Wyn

This course will deal with current production and management practices for turf culture. Establishment of new grass areas and the maintenance of established turf will be covered.

The specific production and maintenance practices for a wide variety of purposes will be included.

Pl. Sc., 2nd year, both terms – 2 lecs. and 2 labs per week

100: **Sociology**
Instructor: **Mr. MacEachern**

A comprehensive study of community structure will be made. The relationships between technology, environment, and human values, morals, and decision making are considered.

Agr. Bus., Agr. Eng., An. Sc., Pl. Sc., 2nd year, 1st term – 3 lecs. per week
Texts: Shinn, R., THE TANGLED WORLD
Keeling, M., MORALS IN A FREE SOCIETY
and other assigned readings

150: **Sociology**
Instructor: **Mr. MacEachern**

Through assigned readings and in lectures, students are given an insight into basic sociological concepts. Emphasis is

placed upon man's antiquity, man's nature and man in community with concern for some of the issues confronting contemporary society including an examination of specific sub-cultures.

Agr. Bus., Agr. Eng., An. Sc., Pl. Sc., 2nd year, 2nd term – 3 lecs. per week

Texts: Shinn, R., THE TANGLED WORLD
Adams, I., THE POVERTY WALL
Frankl, V., MAN'S SEARCH FOR MEANING
and other assigned readings

151: **Sociology (Personnel Relations)**

The development and management of human resources are studied as they apply to several types of Canadian business organizations. Recruiting and selection, interviewing techniques, testing, performance appraisal, wage and salary administration, labor relations and characteristics of bureaucracy are examined in detail. The student is also introduced to the styles and schools of personnel management.

Agr. Bus., Agr. Eng., An. Sc., Pl. Sc., 2nd year, 2nd term – 3 lecs. per week

Text: McLeod, PERSONNEL MANAGEMENT FOR CANADIANS

II. TECHNOLOGY COURSES

The Nova Scotia Agricultural College offers courses designed to help Technicians gain more intensive study so that they may become more proficient in their chosen fields of agricultural endeavour. These studies lead to a Diploma of Technology (Dipl. T.) in directed studies. Specialized courses are also available to help persons prepare themselves for careers associated with laboratory techniques in Biology and Chemistry. These studies lead to a Diploma of Technology (Dipl. T.) in Biology Laboratory Technology, or a Diploma of Technology (Dipl. T.) in Chemistry Laboratory Technology.

A. Technology Studies for Graduate Technicians

A candidate who has received his Technician Diploma in Agricultural Business, Agricultural Engineering, Animal Science, Plant Science or who has equivalent standing, may apply for a year of directed study leading to a Diploma of Technology. If his study record is good and he shows evidence of being capable of doing independent study, his application will be favourably considered.

For admission such a candidate must:

(a) present a satisfactory medical certificate
(b) submit a program of study to the Technician Technologist Syllabus Committee; and
(c) present himself for interviews when requested.

"Program of Study" forms are available from the office of the Dean of Vocational and Technical Education. Application forms accompanied by a completed "Program of Study" should be submitted to the Registrar before May 1 of the year in which study is to commence.

Each program of study must contain at least two full year subjects, additional projects, and laboratory experience. Candidates will as a general rule, select courses from the following list:

(a) AB 30: Advanced Business Management
(b) C 30: Plant Nutrition
(c) M 30 (a): Basic Statistics
(d) PS 30 (b): Advanced Field Crops
(e) AS 30 (b): Advanced Animal Nutrition
(f) Selected subjects from Technician courses
(g) Selected subjects from Degree courses for which prerequisites are met
(h) New subjects for which there is sufficient demand

B. Studies in Biology and Chemistry Laboratory Technology

A candidate for studies leading to a Diploma of Tech-

nology in Biology or Chemistry Laboratory Technology may qualify for admission in one of two ways:

(a) He may take the first year of the Animal or Plant Science courses and, having attained a satisfactory record, apply for admission to the first year of a two-year sequence of courses in Biology or Chemistry Laboratory Technology.

(b) A candidate with Grade XII (012 – N. S.; 121 or 122 – N. B.; or their equivalents) with at least 60% in English, Chemistry, Mathematics, and Biology may also apply for admission to the first year.

In addition each candidate must present a satisfactory medical certificate and present himself for interviews when requested.

Accepted candidates will follow the syllabus given below for the course in which they have registered. The descriptions of subjects will be found on the pages which follow except for those subjects which are prescribed as well as part of the syllabus for a technician course. These descriptions are found on the pages following the technician syllabi.

C. Syllabus for Biology Laboratory Technology

FIRST YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
	Sociology 100	3			
	Sociology 150			3	
	or				
	Sociology 151			3	
C 20	Chemistry	2	4	2	4
M 20	Physics	2	2	2	2
	Biology 101	3	4		
	Biology 150			3	4
B 11(b)	Entomology			2	2
Either					
B 20(a)	Plant Identification	2	2		
	and				
B 22(b)	Plant Physiology			2	2
Or					
AS 27(a)	Animal Physiology	2	2		
AS 28(b)	Animal Pathology			2	2
	and				
AS 20(a)	Animal Nutrition	3	2		

SECOND YEAR

		First Term		Sec. Term	
		Lec.	Lab.	Lec.	Lab.
B 30	Biological Techniques	2	4	2	4
B 31(a)	Biology Laboratory Practices	2	3		
B 32(b)	Microbiology			2	3
B 33	Technical Projects & Reports		3		3
M 30(a)	Basic Statistics	3			
C 31	Qualitative & Quantitative Analysis	3	4	3	4
M 31(b)	Computer Programming				1
AB 31	Office Practices (including Work Simplification)		2		2
B 34(b)	Seminar				1

D. Syllabus for Chemistry Laboratory Technology

FIRST YEAR

		First Term Lec.	First Term Lab.	Sec. Lec.	Sec. Term Lab.
	Sociology 100	3			
	Sociology 150			3	
	or				
	Sociology 151			3	
C 20	Chemistry	2	4	2	4
M 20	Physics	2	2	2	2
AE 21(b)	Electrical Controls			1	3
	Mathematics 100	3			
C 31	Qualitative & Quantitative Analysis	3	4	3	4
C 11	Soils	2	2	2	2

SECOND YEAR

		First Term Lec.	First Term Lab.	Sec. Lec.	Sec. Term Lab.
AS 20(a)	Animal Nutrition	3	2		
C 30	Plant Nutrition	2	2	2	2
C 32	Instrumentation	3	4	3	4
C 33(b)	Laboratory Organization & Records			2	4
C 34	Technical Projects & Reports		4		4
M 30(a)	Basic Statistics	3			
AB 31	Office Practices (including Work Simplification)		2		2
C 35(a)	Glass Blowing		1		
C 31(b)	Seminar			1	
M 31(b)	Computer Programming				1

E. Qualification for Diploma

Students who complete all the requirements with no mark below fifty per cent of the maximum mark obtainable will be granted a Diploma of Technology (Dipl. T.).

A high honours diploma will be awarded to a student who has attained an average of at least eighty per cent and an honours diploma to one who has attained an average of at least seventy-five per cent.

F. Description of Subjects

The following subjects are arranged for the 1972-1973 academic year. The Faculty reserves the right to make any revisions or additions which may be necessary. Subjects not found in the group which follows may be found among the technician courses.

AB 30: **Advanced Business Management**
Instructor: **Mr. Tait**

Micro-economics, inventory control, personnel management, and linear programming are examined. Students are required to carry out a quite intensive project designed to give practical management experiences. Business Management games and text cases are used to further students' training in the area of business management.

3rd year, both terms – 2 lecs. and 2 labs per week

B 30: **Biological Techniques**
Instructor: **Miss Levy**

Preparation of sectioned and other materials for microscopical examination, use of the microtome, staining and slide preparation; cytological and chromosome study.

3rd year, both terms – 2 lecs. and 4 labs per week
Reference Texts: Johansen, PLANT MICROTECHNIQUE
Sass, ELEMENTS OF BOTANICAL TECHNIQUE
Peacock, ELEMENTARY MICROTECHNIQUE

B 31 (a): **Biology Laboratory Practices**
Instructor: **Biology Staff**

Care of cultures of live plant, insect and small animal materials for laboratory use; collecting, preparation and classification of specimens for permanent collections; photographic and darkroom procedures.

3rd year, 1st term – 2 lecs. and 3 labs per week

B 32 (b): **Microbiology**
Instructor: **Mr. Porth**

An introduction to the science of microbiology. Lectures will be concerned with the concepts of microbial classification, naming, growth and nutrition, culturing, metabolism, disease and industrial applications. Laboratory work will stress the principles of staining, preparation of microbiological media, culturing, biochemical tests and interpretation of results.

3rd year, 2nd term – 2 lecs. and 1 lab per week
Text: Pelczar and Reid, MICROBIOLOGY (second edition)

B 33: **Laboratory Project**

A laboratory project or projects to be carried out utilizing the techniques learned in the more formal classes.

3rd year, both terms – 4 labs per week

C 20: **Organic Chemistry**
Instructor: **Miss Payne**

The basic principles and theories of Organic Chemistry, the nomenclature of organic compounds, the chemistry of functional groups of various basic classes of organic compounds, the importance of Organic Chemistry in relation to animal and plant life, and introductory Biochemistry, including the study of carbohydrates, lipids, proteins, enzymes, and vitamins are presented.

The modern organic and biochemical methods of extraction, purification and identification are studied, using modern laboratory procedures. Spectrophotometric and microscopic analyses methods are employed. Laboratory procedures are correlated with lecture material and emphasis is placed on agricultural materials.

An. Sc., Pl. Sc., 2nd year, both terms – 2 lecs. and 4 labs per week
Text: Hart and Schuetz, ORGANIC CHEMISTRY (3rd edition)
Laboratory Manual: mimeographed procedures

C 31: **Qualitative and Quantitative Analysis**
Instructor: **Mr. MacLean**

Using modern chemical methods to evaluate the qualitative nature of inorganic and organic agricultural materials,

gravimetric, spectro-chemical, chromatographic, volumetric and titrimetric quantitative methods.

3rd year, both terms – 3 lecs. and 4 labs per week
Text: To be announced

C 32: **Instrumentation**
Instructor: **Mr. MacLean**

Use of modern instrumentation in the Chemistry Laboratory including atomic absorption, gas chromatography, spectroscopy, colorimetry, fat fibre, Kjeldohl, soil and tissue determination, collection and preparation of samples for analysis.

3rd year, both terms – 3 lecs. and 4 labs per week
Text: To be announced

C 33 (b): **Laboratory Organization, Records and Reports**
Instructor: **Chemistry Staff**

The organization and operation or a modern chemical laboratory; the keeping of records and reporting of analytical results.

3rd year, second term – 2 lecs. per week
Laboratory: Work in Chemistry Laboratory
Special Projects

C 30: **Plant Nutrition**
Instructors: **Chemistry Staff**

A study of the plant system as it relates to nutrition, involving translocation, transpiration, photosynthesis, essential elements and their role in the health and vigor of plants, symptoms of deficiencies and the diagnostic techniques used in studying the nutrition of plants. Evaluation of plant nutrition in relation to field and greenhouse crop production.

3rd year, both terms – 2 lecs. and 2 labs per week
Text: To be announced
Laboratory: Student selected plant nutrition projects
Reference Texts: Bear et al, HUNGER SIGNS IN CROPS
Golston, THE LIFE OF THE GREEN PLANT
Sprague, MINERAL DEFICIENCIES IN PLANTS
Guilbert, MINERAL NUTRITION

E 30 (b): **Communications**
Instructors: **English Staff**

This course involves both basic theories of communications and practical experience in methods. During the course methods involving speaking, writing, radio, television, photography, graphics, exhibits, and meetings will be covered.

2nd term – 3 lecs. per week

M 30 (a): **Basic Statistics**
Instructor: **Dr. PadmaNathan**

Populations and samples, frequency distributions, sampling theory, tests of hypotheses, linear regression and correlation, analysis of variance, discussion of experimental designs.

1st term – 3 lecs. per week
Text: Bishop, STATISTICS FOR BIOLOGY

M 20: **Physics**
Instructor: **Mr. Buckler**

This course emphasizes the fundamentals of light, electricity and magnetism, basic electronics, heat and atomic and nuclear physics, with only sufficient mechanics as is necessary for an understanding of these topics.

This course is to be elected only by those students who wish to proceed to a third year leading to a diploma as a Biology or Chemistry Laboratory Technologist.

An. Sc., Pl. Sc., 2nd year, both terms – 2 lecs. and 2 labs per week
Text: Harris and Hemmerling, INTRODUCTORY APPLIED PHYSICS

PS 30 (b): **Advanced Field Crops**
Instructor: **Dr. Bubar**
Prerequisite: **Plant Science 20**

Production of field crops for industrial and commercial markets. Specialized seed production.

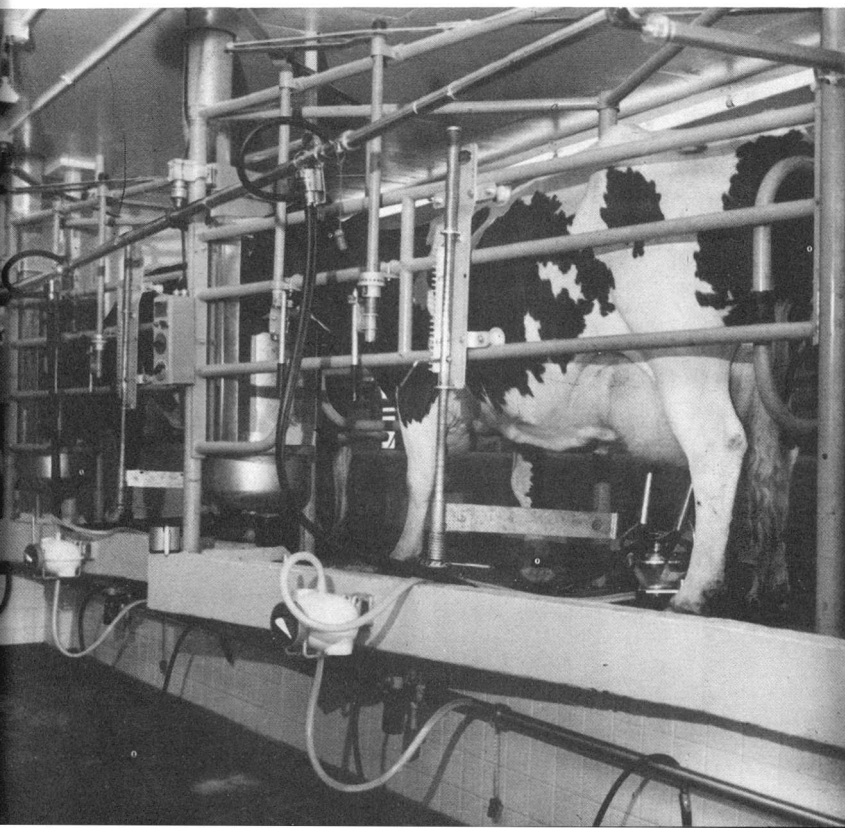
2nd term – 2 lecs. and 1 lab per week

AS 30 (b): **Advanced Animal Nutrition**
Instructor: **Dr. Cock**

Advanced study in the nutrition of farm animals. The course will deal with the utilization of nutrients and will require independent study of current research.

3rd year, 2nd term – 3 lecs. per week


CONTINENTAL MOTORS CORP'N.



VOCATIONAL COURSES

The Nova Scotia Agricultural College offers pre-employment and upgrading courses for several specific farm and farm-related careers. These may be of varying lengths and offered at different times of the year depending upon the occupation topic (s) being studied. All vocational couses lead to vocational certificates.

The following courses were planned for the 1971-72 year. Similar, but not necessarily the same courses will be planned for the 1972-73 year.

Upgrading Courses

Meat Cutting	September 7, 1971	December 10, 1971
Farrier Training (20 successive Saturdays)	October 2, 1971	February 19, 1972
Farrier Training	November 1, 1971	November 26, 1971
Chinchilla Production	November 15, 1971	November 19, 1971
Power Saw Maintenance	December 6, 1971	December 10, 1971
Meat Cutting	January 3, 1972	April 7, 1972
Dairy Husbandry	January 10, 1972	January 14, 1972
Greenhouse Crop Production	January 10, 1972	January 14, 1972
Farm Bookkeeping	January 10, 1972	January 14, 1972
Floral Design	January 17, 1972	January 21, 1972
CanFarm Record Systems	January 17, 1972	January 21, 1972
Swine Herd Management	January 31, 1972	February 11, 1972
Christmas Tree Production	February 7, 1972	February 11, 1972
Blueberry Production	February 7, 1972	February 11, 1972
Farm Record Analysis – Dairy Farmers on CanFarm Systems	February 14, 1972	February 18, 1972
Beef Production	February 14, 1972	February 18, 1972
Land Use Planning	February 14, 1972	February 25, 1972
Sheep Production	February 21, 1972	February 25, 1972
Farm Record Analysis – Hog Farmers	February 21, 1972	February 25, 1972
Christmas Tree Production	February 21, 1972	February 25, 1972
Swine Health and Nutrition	February 28, 1972	March 3, 1972
Farm Welding	February 28, 1972	March 3, 1972
Power Saw Operation	February 28, 1972	March 3, 1972
Cattle Health and Nutrition	March 6, 1972	March 10, 1972
Farrier Training II	March 6, 1972	March 31, 1972
Operation and Repair of Farm Machinery	March 13, 1972	March 24, 1972

Poultry Production – Layers	March 13, 1972	March 17, 1972
Landscaping	March 13, 1972	March 17, 1972
Retailing Farm Supplies	March 20, 1972	March 24, 1972
Operation of Roadside Markets	March 27, 1972	March 31, 1972
Advanced Christmas Tree	April 3, 1972	April 14, 1972

Occupational Courses

Artificial Insemination	August 23, 1971	September 3, 1971
General Agriculture	September 13, 1971	April 28, 1972
Artificial Insemination	October 18, 1971	October 29, 1971
Woodlot Harvesting	November 1, 1971	November 26, 1971
Artificial Insemination	On demand	
Horsemastership	January 3, 1972	April 7, 1972
Turf Production	January 24, 1972	February 18, 1972
Woodlot Harvesting	March 27, 1972	April 21, 1972

ENTRANCE REQUIREMENTS

These are specific for each course. In most cases, a candidate for admission must (a) be at least eighteen years of age, (b) present a satisfactory medical report, (c) demonstrate interest in the occupation being studied, (d) be self employed or have a letter of recommendation from an employer.

COST AND FINANCIAL ASSISTANCE

Board at the Nova Scotia Agricultural College is $23.00 per week.

The cost for books, student fees, and other similar charges depends upon the length of the course and the topics being covered. Rarely will such costs exceed ten dollars.

LIVING ALLOWANCES

Some adults will qualify for living assistance from the Canada Department of Manpower. The amount of the assistance is determined by that department according to the student's financial responsibilities.

Young people who have been out of school for less than three years, who are not receiving unemployment insurance

or assistance from other agencies, who are in a course of two weeks or longer duration, and who must live away from home during the course may qualify for a living allowance of $15.00 per week from the N. S. A. C. (Provincial Funds).

APPLICATIONS

Adults should visit their nearest Canada Manpower Office and ask if they may be selected for training on the course or courses which meet their particular needs.

Young people who have just left school and who are interested in any of the vocational courses should write a letter of application to the Registrar, Nova Scotia Agricultural College, Truro, Nova Scotia.

Location of Canada Manpower Centres in the Atlantic Region:

A. Nova Scotia

Amherst – 119 Victoria Street, P. O. Box 519
Bridgewater – 763 King Street, P. O. Box 860
Dartmouth – 39 Wentworth Street, P. O. Box 9
Glace Bay – 59 Main Street
Halifax – 1256 Barrington Street, P. O. Box 2377
Inverness – Federal Building, Railway Street
Kentville – Federal Building, 495 Main Street
Liverpool – 164 Main Street
Lunenburg – Post Office Building
New Glasgow – 35 Donald Street
New Waterford – Post Office Building, Plummer Avenue
North Sydney – 211 Prince Street
Pictou – 31 Front Street
Port Hawkesbury – Port Hawkesbury Federal Building
Springhill – 68 Main Street, P. O. Box 2050
Sydney – 308 George Street, P. O. Box 1120
Sydney Mines – 105 Main Street
Truro – 15 Arlington Place
Yarmouth – 13 Willow Street

B. New Brunswick

Bathurst – 473 King Avenue
Campbellton – 37 Roseberry, P. O. Box 610
Chatham – Federal Building, Duke Street
Edmundston – Federal Building, 22 Emerson Street
Fredericton – 626 Campbell Street
Keswick – Campbell Street
Minto – Swift Building, P. O. Box 129
Moncton – 1081 Main Street
Newcastle – Federal Building, Pleasant Street
Sackville – Federal Building, Main Street
Saint John – 93 Canterbury Street
St. Stephen – 93 Water Street
Sussex – 48 Maple Avenue
West Saint John – 12 Church Street
Woodstock – Federal Building, Regent Street

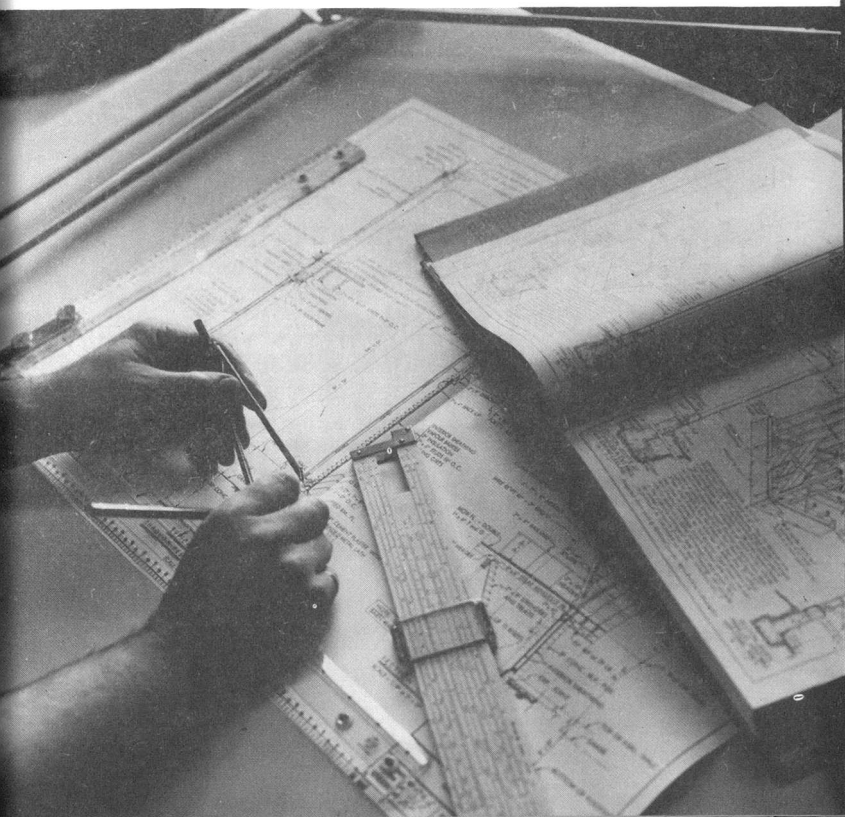
C. Prince Edward Island

Charlottetown – Dominion Building, Richmond Street
Summerside – Federal Building, Central Street

D. Newfoundland

Corner Brook – Kawaja Building, 17 Broadway
Gander – Koslow Building
Grand Falls – High Street, P. O. Box 480
St. John's – 391 Water Street West, P. O. Box 1900
Stephenville – Stephenville

SCHOLARSHIPS AND PRIZES



PRIZES

GOVERNOR-GENERAL'S MEDAL

A silver Medal was first offered for annual competition by His Excellency the Governor-General of Canada in 1914. It is awarded each year by the members of the faculty to the student of the graduating class who has attained the highest standing during his college course. In determining "highest standing", scholarship and leadership in student activities, in the order named, are the deciding factors in making this award.

THE H. J. FRASER MEMORIAL PRIZE FOR ENGLISH

In memory of the late Professor H. J. Fraser, a prize is awarded each autumn, on the recommendation of the English Department, to a second year student who achieved excellence in a first year English course at this institution.

MASTER FEED PRIZES (Division of Maple Leaf Mills Limited)

Maple Leaf Mills Limited provides two prizes of $25., one for Second Year Technician Animal Nutrition and one for Technologist Advanced Animal Nutrition.

NOVA SCOTIA VETERINARY MEDICAL ASSOCIATION PRIZE

The Nova Scotia Veterinary Medical Association provides a prize of $50. to a deserving student who excels in the Animal Physiology and Pathology courses offered to second year Technician students (Animal Science) and who subsequently enrolls in suitable courses of the Technology year.

SCHOLARSHIPS

ENTRANCE SCHOLARSHIPS (DEGREE COURSE)

NOVA SCOTIA INSTITUTE OF AGROLOGISTS SCHOLARSHIP

The Nova Scotia Institute of Agrologists has provided a scholarship of $250. for a resident of Nova Scotia entering the Degree Course at the Nova Scotia Agricultural College. In awarding this scholarship, the selection committee will take into consideration academic standing and financial need. Applicants should write to the Registrar, Nova Scotia Institute of Agrologists, N. S. A. C., Truro, N. S., for an application form, which will be available by July 1. The application and the applicant's Grade XI and Grade XII (if the applicant has one) certificate should be in the Registrar's office not later than August 15.

CANADA PACKERS LIMITED SCHOLARSHIP

Canada Packers Limited offers a scholarship of $250. to assist a student in entering or continuing in the Degree Course at the Nova Scotia Agricultural College. Candidates for this scholarship should have a good academic record and should have taken an active interest in community agricultural activity.

In making the above award, financial need will be taken into consideration. No application is necessary.

PROVINCIAL SCHOLARSHIPS: NOVA SCOTIA, NEW BRUNSWICK, AND PRINCE EDWARD ISLAND

The Provinces of Nova Scotia, New Brunswick and Prince Edward Island offer scholarships to their residents entering the Degree Course at the Nova Scotia Agricultural College with high marks. Scholarships are awarded on the basis of Christmas and Easter school marks of the matriculation year and a re-

commendation from the Principal, of final school marks of the matriculation year or of the provincial examinations. Application for consideration on the basis of school marks must be made before May 15; candidates with high provincial examination marks or high final school marks will be considered without an application. Candidates are urged to apply for consideration on the basis of school marks and a recommendation.

ENTRANCE SCHOLARSHIPS (DEGREE OR TECHNICIAN COURSE)

NOVA SCOTIA AGRICULTURAL COLLEGE ALUMNI SCHOLARSHIP

The Nova Scotia Agricultural College Alumni Association offers a scholarship of $300. to a worthy student entering the first year of the Degree or Technician Course. Academic standing and financial need will be taken into consideration in awarding the scholarship. No application is necessary.

HENRY AUSTIN MEMORIAL 4-H SCHOLARSHIP

In memory of Henry Austin, a devoted friend to everyone and a dedicated leader who faithfully served the County of Cumberland for more than seven years as Agricultural Representative, a memorial fund has been established by his friends to provide an annual scholarship to a deserving 4-H Club member from Cumberland County attending first year in either the Technician or Degree Course at the Nova Scotia Agricultural College, or a Home Economics Course, at the College of his or her choice.

This fund will be administered by and the selection of the recipient will be made by the Scholarship Committee of the Cumberland County Federation of Agriculture.

The value of the scholarship at this time is $100., payable in two parts: $50. on successful completion of the first

term and the balance on completion of the year's course.

Applicants must possess a Grade XI High School Certificate, have completed at least two years in 4-H club work in Cumberland County, and be recommended by a District Federation of Agriculture.

Selection will be made on the following basis:

1. Leadership ability and interest in community activities.
2. Scholastic standing and financial need.

Applications must be submitted to the Secretary of the County Federation of Agriculture, not later than August 31.

Application forms may be obtained from the Secretary of the District Federation of Agriculture in the candidate's area, or the Agricultural Office, Amherst.

LEONARD BEST MEMORIAL SCHOLARSHIP

The Nova Scotia 4-H Alumni Association presents a scholarship in memory of Leonard Greenwood Best. This scholarship is awarded annually to the most outstanding 4-H club member in Nova Scotia. The selection is made at the Provincial 4-H Leadership Week in Truro and is based on personality, leadership qualities, contribution to 4-H, and all-round ability. This scholarship, in the amount of fifty dollars, is to be used toward further education in any field (not applied for).

CANADIAN NATIONAL EXHIBITION SCHOLARSHIP FOR 4-H CLUB MEMBERS

The Canadian National Exhibition will award annually, in each province, a scholarship of the value of $600. and an all expense paid trip to the Canadian National Exhibition to a candidate wishing to enter a degree course in Home Economics, a degree course in Agriculture, a degree course in Veterinary Medicine, or a technician course in Agriculture.

Candidates must be at least 17 years of age, have completed at least two years in 4-H Club work, and have shown qualities of leadership and an interest in community activities.

The successful candidate will receive his or her award at a fitting ceremony at the Canadian National Exhibition in the year in which it is won.

A successful candidate may have five years in which to take up his or her scholarship.

Application forms may be obtained from the Agricultural Representative.

ATLANTIC PROVINCES HATCHERY FEDERATION SCHOLARSHIP

The Atlantic Provinces Hatchery Federation offers a scholarship of $200. to a resident of the Atlantic Provinces who has successfully completed at least one year at the Nova Scotia Agricultural College and who is registered for an additional year. Preference will be given to a student who has an interest in poultry. If there is no candidate with an interest in poultry, preference will be given to a student with an interest in animal science. If there is no candidate with an interest in either poultry or animal science, the scholarship will be awarded to a candidate with interests in other fields. In awarding the scholarship, financial need will be taken into consideration. Candidates should send a letter giving pertinent details to the Registrar before August 15.

ENTRANCE SCHOLARSHIPS (TECHNICIAN COURSE)

MARITIME CO-OPERATIVE SERVICES LTD. BURSARIES

Maritime Co-operative Services Ltd. offers four bursaries of $100. each to students entering the Technician Course.

The selection will be made on the following basis: (a) the recommendation of a local co-operative or district Federation of Agriculture, (b) need, and (c) potential for community leadership and/or co-operative endeavour.

Applications should be sent to Maritime Co-operative Services Limited, Box 750, Moncton, N. B., not later than August 15.

THE LORNE S. FISHER MEMORIAL SCHOLARSHIP

In memory of the late Lorne S. Fisher, a leader and a good friend of farm organizations in his community, his county and his province, and a member of the Federation of Agriculture, the Cumberland County Federation of Agriculture has set up a scholarship of $100., open to a candidate who is a son or a daughter of a Federation member and who is enrolled in 1972-73 in the Technician Course at this institution. The scholarship will be payable in two parts: $50. on completion of the first year and $50. on completion of the second year.

Applications must be approved by the District Federation of Agriculture and must be submitted to the Secretary of the Cumberland Federation of Agriculture by August 31. Application forms may be obtained from the Secretary of the District Federation of Agriculture in the candidate's area.

PROVINCIAL SCHOLARSHIPS: NOVA SCOTIA AND NEW BRUNSWICK

The provinces of Nova Scotia and New Brunswick offer scholarships of $200. to their residents entering one of the Technician Courses at the Nova Scotia Agricultural College with an average of 80% or better.

CONTINUATION SCHOLARSHIPS (DEGREE COURSE)

(For students at the Nova Scotia Agricultural College)

THE NOVA SCOTIA FEDERATION OF AGRICULTURE SCHOLARSHIP

The Nova Scotia Federation of Agriculture offers a scholarship of $150. to a resident of Nova Scotia who has completed the work of the first year of the Degree Course and is entering the second year. Financial need and academic standing will be considered in making the award. No application is necessary.

GULF OIL CANADA LIMITED

Gulf Oil Canada Limited offers a scholarship of $150. to a worthy student in the second year of the Degree Course. In awarding this scholarship, academic standing and financial need will be taken into consideration. No application is necessary.

IRA L. RHODENIZER MEMORIAL SCHOLARSHIP

The Nova Scotia Federation of Agriculture offers, as a memorial to the late Ira L. Rhodenizer, long time friend of organized agriculture and the 4-H movement, a scholarship of $150. to a student in the Second Year Technician Class or the Second Year Degree Class. The recipient must be a Nova Scotian of high academic standing who has taken an active part in student affairs and has been active in the 4-H movement. The scholarship will be payable after the winner has registered for his second year. No application is necessary.

THE DR. KENNETH COX SCHOLARSHIP

As a tribute to their retiring Principal, the Class of 1964 of the Nova Scotia Agricultural College established a fund of

$2000., the interest on which is to be awarded annually to a worthy student who is entering the final year in agriculture. No application is necessary.

THE VICIOUS CIRCLE SOCIETY SCHOLARSHIP

A small number of graduates of the Degree classes of 1966 and 1967 who call themselves the Vicious Circle Society have established a scholarship of $200. for a worthy Canadian student in the final year of the Degree Course. A reasonable academic standing and financial need will be taken into consideration in determining the winner. No application is necessary.

PROVINCIAL SCHOLARSHIPS: NOVA SCOTIA, NEW BRUNSWICK, AND PRINCE EDWARD ISLAND

The Provinces of Nova Scotia, New Brunswick and Prince Edward Island offer scholarships to their residents registered in the second or third year of the Degree Course at the Nova Scotia Agricultural College who have attained a high standard on the work of the previous year. No application is necessary.

CONTINUATION SCHOLARSHIPS

(TECHNICIAN AND TECHNOLOGIST)

(For students at the Nova Scotia Agricultural College)

THE NOVA SCOTIA FEDERATION OF AGRICULTURE SCHOLARSHIP

The Nova Scotia Federation of Agriculture offers a scholarship of $150. to a resident of Nova Scotia who has completed the work of the first year of the Technician Course and is entering the second year. Financial need and academic standing will be considered in making the award. No application is necessary.

PROVINCIAL SCHOLARSHIPS: NOVA SCOTIA AND NEW BRUNSWICK

The provinces of Nova Scotia and New Brunswick offer to their residents enrolled in one of the Second Year Technician Courses or in the Technologist Course a scholarship of $200., provided that an average of at least 80% has been attained on the work of the previous year.

CONTINUATION SCHOLARSHIPS

(For graduates of the Nova Scotia Agricultural College registered at other institutions)

MACDONALD COLLEGE SCHOLARSHIP

Macdonald College offers a scholarship of one year's tuition to the student ranking highest in the graduating class who registers in the course leading to the degree of B. Sc. (Agr.) or B. Sc. (F. Sc.) at that institution. Provided that the year's work at Macdonald College is satisfactory, the scholarship will be awarded for a second year.

CANADA PACKERS LIMITED SCHOLARSHIP

Canada Packers Limited offers a scholarship of $250. to a worthy student who has satisfactorily completed the Degree Course at the Nova Scotia Agricultural College and who elects to continue in an Animal Husbandry, Poultry or General Agriculture option at some Canadian Agricultural College. Applications for this scholarship must be made to the Registrar before April 15 of the applicant's final year at the Nova Scotia Agricultural College.

In making the above award, financial need will be taken into consideration.

KETCHUM MANUFACTURING COMPANY LIMITED SCHOLARSHIP

The Ketchum Manufacturing Company Limited has provided a $1000. Dominion of Canada Bond, the interest on which is to be used for an annual scholarship available to a Nova Scotia Agricultural College graduate registered in an Animal Husbandry option. The scholarship will be awarded to a worthy student with a satisfactory academic standing. Application for this scholarship must be made to the Registrar before April 15 of the applicant's last year at the Nova Scotia Agricultural College.

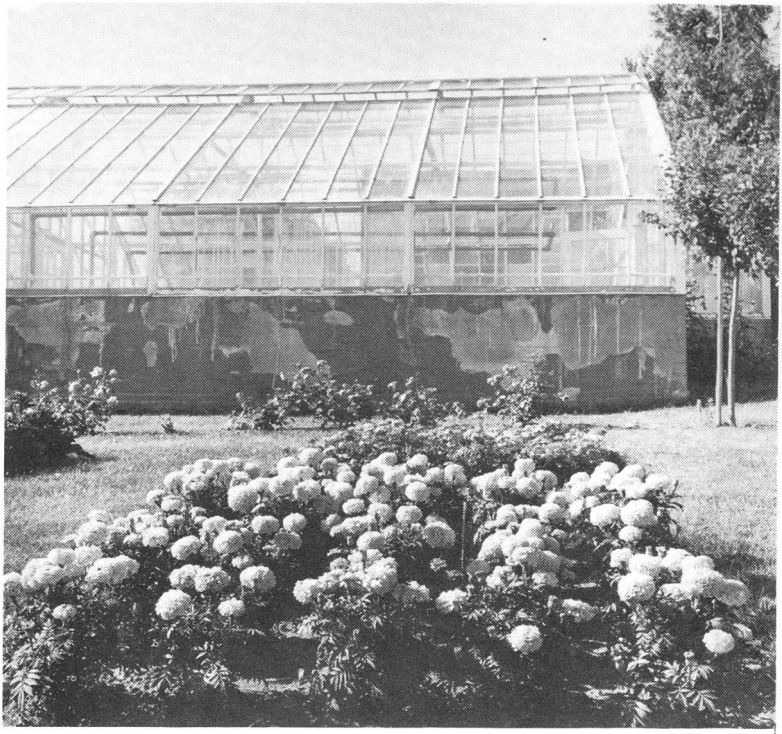
MARITIME CO-OPERATIVE SERVICES LIMITED SCHOLARSHIP

Maritime Co-operative Services Limited offers a scholarship of $100. to a graduate of the Nova Scotia Agricultural College from the Maritime Provinces entering the final two years at an approved agricultural college. The scholarship will be awarded on the following basis and may be tenable for two years:

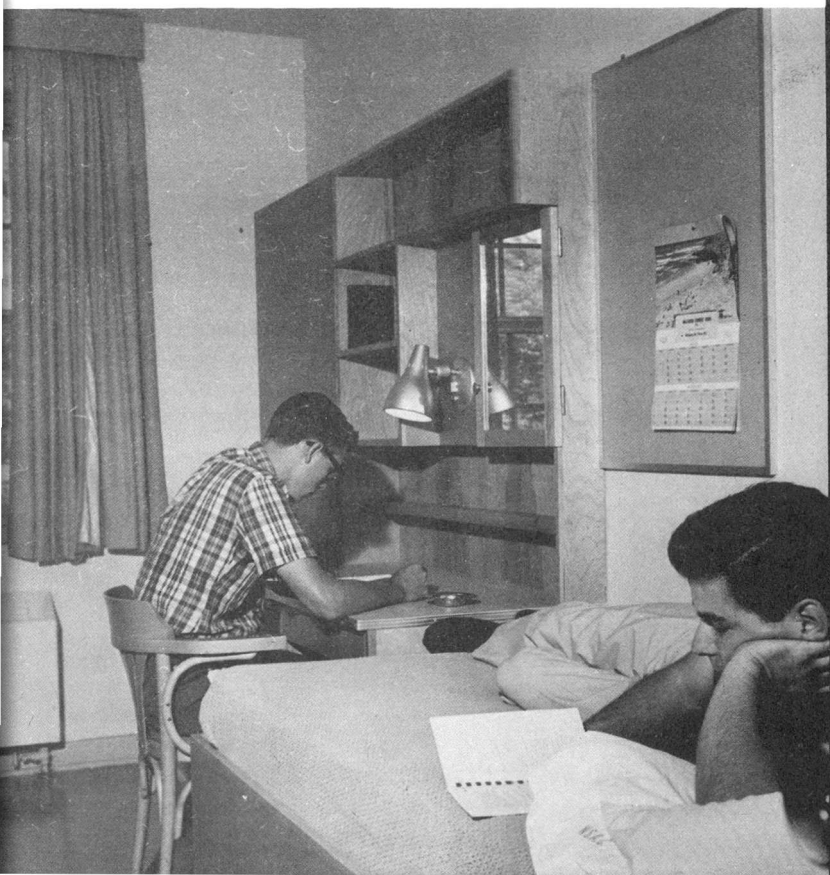
(a) scholastic ability,
(b) financial need,
(c) knowledge and appreciation of co-operatives.

Application forms may be obtained from the Principal of the Nova Scotia Agricultural College.

Applications must be submitted to the Registrar by April 1.



DIRECTORY OF STUDENTS



NOVA SCOTIA AGRICULTURAL COLLEGE
ENROLLMENT 1971-1972
FIRST YEAR DEGREE

M. D. Anderson, R. R. 2, Hampton, N. B.
Miss G. P. Andrews, R. R. 3, Sydney, N. S.
Miss K. A. Antworth, Upper Woodstock, N. B.
J. R. Atkinson, Box 22, Amherst, N. S.
L. R. Barnes, Topsail, Conception Bay, Nfld.
K. G. Bradley, R. R. 2, Clifton Royal, N. B.
Miss G. J. Brown, R. R. 1, Windsor, N. S.
A. J. Campbell, P. O. Box 53, Port Hawkesbury, N. S.
A. J. Chisholme, R. R. 4, Harbour Center, N. S.
R. D. Compton, R. R. 1, Summerside, P. E. I.
Miss B. F. Condon, 67 Willow Street, Truro, N. S.
D. A. Conrad, 245 Brunswick Street, Truro, N. S.
D. S. Cox, River Hebert, N. S.
A. M. Croft, First South, Lunenburg Co., N. S.
E. A. Cyr, 461 Second Street, Glace Bay, N. S.
T. H. Davis, 798 Wentworth Road, Windsor, N. S.
Miss G. M. Densmore, Densmore Mills, N. S.
E. K. Dookie, Lot 7C Ogle Front, East Cost Demerara, Guyana, S. A.
R. D. Dunphy, Site 73, Box 6, Torbay Rd., St. John's, Nfld.
Miss M. A. Eikelenboom, Box 103, Shubenacadie, N. S.
J. C. Ennis, Greenfield, P. E. I.
D. B. Evans, 25 High Street, North Sydney, N. S.
Miss L. C. Everett, R. R. 6, Fredericton, N. B.
Miss A. P. Fenton, Clarksville, N. S.
W. J. Fitzpatrick, Mount Stewart P. O., P. E. I.
B. K. Forrest, Box 1, Oxford, N. S.
D. M. Harding, 81 River Street, Marysville, N. B.
J. S. Harvie, R. R. 5, Canning, N. S.
P. T. Hayes, Coldbrook, N. S.
S. S. Healy, R. R. 2, Wolfville, N. S.
J. K. Hirtle, R. R. 1, Hopewell, N. S.
G. G. Hogan, 153 North River Road, Charlottetown, P. E. I.
R. S. Jefford, Kelligrews, Conception Bay, Nfld.
J. B. Lester, P. O. Box 7095, St. John's, Nfld.
M. F. Lomond, 48 Brook Street, North Sydney, N. S.
T. E. Matheson, R. R. 2 Scotsburn, N. S.
R. W. Maynard, Tyne Valley, R. R. 1, P. E. I.
I. Moore, 223 Commerce Avenue, Summerside, P. E. I.
Miss A. B. Moos, Martha's Vineyard, Box 1014, Edgartown, Mass.
J. P. Moore, Apt. 202, 26 Brookdale Crescent, Dartmouth, N. S.
Miss L. L. Mullins, 385 McLaughlin Drive, Moncton, N. B.
J. W. MacDougall, R. R. 1, Antigonish, N. S.

J. R. MacIntosh, R. R. 2, West Bay, N. S.
R. R. MacLean, 34 Flamingo Drive, Halifax, N. S.
Miss J. J. MacLeod, Lorne Valle, Cardigan, R. R. 3, P. E. I.
E. R. McNutt, R. R. 6, Truro, N. S.
W. B. Palmer, Freeland, Ellerslie, R. R. 2, P. E. I.
P. L. Parlee, R. R. 2, Apohaqui, N. B.
W. D. Pearce, 1097 Allard Avenue, Verdun 204, Quebec.
Miss B. D. Ross, Roseberry, Belfast, R. R. 4, P. E. I.
L. Roy, Petit-Rocher, R. R. 1, Box 174, N. B.
K. A. Smarzik, 5 - 4th Range, St. Denis-sur-Richelieu, Quebec
L. G. Snyder, R. R. 1, Jacquet River, N. B.
J. H. Steeves, 65 Madison Avenue, Moncton, N. B.
S. L. Taylor, 474 Bedford Highway, Prince's Lodge, Halifax, N. S.
D. K. Thompson, 262 Bentinck Street, Sydney, N. S.
D. P. Thornton, R. R. 1, Woodstock, N. B.
J. B. Tobin, 115 Union Street, Sydney, N. S.
P. J. VanKessel, R. R. 1, New Glasgow, N. S.
D. F. Walker, R. R. 5, Sussex, N. B.
R. M. Watson, R. R. 3, Grand Falls, N. B.
P. H. C. Weaver, Elmsdale, N. S.
D. L. Wells, Box 175, Chatham, N. B.
R. C. Wilkie, 10 Moulton Avenue, North Sydney, N. S.
T. L. Wood, R. R. 1, Scotch Village, N. S.
S. A. Yuill, R. R. 1, Truro, N. S.

SECOND YEAR DEGREE

A. H. Anthony, Jr., 342 Farmington Road, Longmeadow, Mass. 01106
K. W. Beausejour, R. R. 1, Debert, N. S.
R. F. Bennett, 261 South Street, Glace Bay, N. S.
A. A. Bishop, R. R. 2, Wolfville, N. S.
B. D. Bishop, River de Chute, Carleton County, N. B.
J. S. T. Bowman, P. O. Box 46, Petitcodiac, N. B.
I. J. Breau, 95 Cornhill Street, Moncton, N. B.
W. J. Brown, Windsor, R. R. 1, N. S.
Miss D. J. Campbell, South West Lot 16, Miscouche, P. E. I.
C. F. Carter, Norton, R. R. 4, N. B.
A. D. Cole, 5250 Spring Garden Road, Halifax, N. S.
K. A. Curran, Mount Stewart, R. R. 5, P. E. I.
R. L. Cutcliffe, Carleton Siding, P. E. I.
E. N. DeMerchant, Perth, R. R. 2, N. B.
E. L. Fage, Amherst, R. R. 5, N. S.
C. F. Ford, 6418 London Street, Halifax, N. S.
A. E. Giffen, 3127 Stanford Street, Halifax, N. S.
B. W. Hagell, 236 Willow Street, Truro, N. S.
F. Hender, Box 40, Dark Cove, Newfoundland
B. W. Hicks, P. O. Box 424, Hartland, N. B.
M. L. D. Hilchie, Noel, Hants Co., N. S.

P. J. Hominick, 40 Breton Street, Sydney, N. S.
Miss J. A. Illsley, Truro, R. R. 5, Nova Scotia
I. A. L. Joseph, Rosignol Village, West Coast Berbice, Guyana, S. A.
N. D. Kidston, R. R. 1, Port Williams, N. S.
F. W. Lane, Jr., 7 Miller Rd., Truro, N. S.
W. H. Lloyd, Jr., P. O. Box 44, Hubbards, N. S.
G. F. Lutes, R. R. 1, Moncton, N. B.
Miss V. J. Mingo, Truro, R. R. 3, N. S.
R. L. Mitchell, 121 Smith Ave., Truro, N. S.
C. L. B. Morrison, Shore Road, Eastern Passage, Halifax Co., N. S.
M. P. Muise, Quinan, Yarmouth Co., N. S.
C. J.MacBeth, St. Peters, P. E. I.
B. W. McCurdy, 640 Prince Street, Truro, N. S.
J. I. MacDonald, Mount Stewart, R. R. 5, P. E. I.
B. S. MacDonald, Lakeview Drive, Sydney, N. S.
M. A. MacEachern, R. R. 3, Tatamagouche, N. S.
D. W. McIsaac, Florenceville, N. B.
D. R. MacKenzie, Scotsburn, R. R. 2, N. S.
Miss M. McSweeney, Box 7, Mount Uniacke, N. S.
B. R. Neaves, R. R. 3, Kentville, N. S.
A. G. Pabani, P. O. Box 9, Namasagau, Uganda
D. K. Parker, Pictou, R. R. 2, N. S.
M. M. Richardson, R. R. 4, New Glasgow, N. S.
P. R. Richardson, Lambertville, Deer Island, N. B.
Miss C. D. Robichaud, Box 137, Richibouctou, R. R. 1, N. B.
D. E. Robinson, R. R. 1, Kentville, N. S.
J. T. Rogers, 4 Chisholm Street, Sydney Mines, N. S.
Miss S. M. Scallion, 6178 Shirley Street, Apt. 1, Halifax, N. S.
W. L. Smith, R. R. 4, Amherst, N. S.
L. F. Walsh, R. R. 2, Box 162, Bathurst, N. B.
Miss L. G. Whiteway, Montague, R. R. 1, P. E. I.
L. S. Yeo, Charlottetown, R. R. 3, P. E. I.

THIRD YEAR DEGREE

D. Allison, Jr., R. R. 3, Florenceville, N. B.
V. H. Austin, Collingwood, N. S.
H. J. Baird, Box 4204, St. John's, Newfoundland
N. G. Boswall, R. R. 3, Charlottetown, P. E. I.
D. A. Browning, R. R. 1, Egerton, N. S.
E. Butt, Heatherton, Newfoundland
M. Chasse, R. R. 1, St. Hilaire, N. B.
G. V. Comeau, Meteghan River, N. S.
D. G. Cowl, Bedford, S. S. 1, Site 12, Halifax Co., N. S.
W. E. Craig, 42 Southview Avenue, Kentville, N. S.
Miss G. K. Crooker, Caledonia, N. S.
P. G. Cyr, St. Basile, N. B.

D. R. Doncaster, 11 Joyce Avenue, Halifax, N. S.
C. F. Everett, R. R. 6, Fredericton, N. B.
Miss H. M. Freeman, 22 Dartmoor Crescent, Bedford, N. S.
Miss N. George, Arichat, N. S.
G. H. Gillis, 9 Sinclair Street, Dartmouth, N. S.
J. F. Grant, Spencer's Island, N. S.
R. A. Healey, 17 Hillcrest Drive, Coxheath, N. S.
Miss J. B. Hume, 7 Wildwood Blvd., Dartmouth, N. S.
G. I. Jaikaran, 273 Lamaha Street, Georgetown, Guyana
Miss D. M. Langille, R. R. 3, Tatamagouche, N. S.
R. D. Mosher, 5371 Duffus Street, Halifax, N. S.
L. C. Mueng, P. O. Box 1477, Biera, Portuguese East Africa
L. R. B. Mullegama, No. 119, Rajapihilla Mawatha, Kandy, Ceylon
K. M. Murch, Mouth of Keswick, R. R. 1, N. B.
B. B. Murray, Rexton, R. R. 2, N. B.
C. R. MacLeod, 76 Fenwick Street, Dartmouth, N. S.
B. MacNeil, Main Street, Florence, N. S.
J. H. MacNeil, Kimberley Drive, Truro, R. R. 2, N. S.
D. B. Nicholson, Bredalbane, R. R. 2, P. E. I.
Miss E. D. Pattillo, Guelph, Ontario
Miss S. B. Reid, 5 Pine Street, Bedford, N. S.
J. W. Rovers, R. R. 1, Afton, N. S.
A. G. P. Shaw, R. R. 2, Newport, N. S.
A. L. Smith, R. R. 4, Amherst, N. S.
D. W. Sutherland, R. R. 6, Truro, N. S.
C. N. Thompson, Thompson Road, Oxford, N. S.
E. A. Thorne, Havelock, N. B.
B. L. Trenholm, R. R. 2, Port Elgin, N. B.
J. R. Trenholm, R. R. 6, Moncton, N. B.
D. M. Vincent, P. O. Box 57, Curtis Park, Chatham, N. B.

FIRST YEAR TECHNICIAN

G. R. Amon, R. R. 1, Great Village, N. S.
Miss D. McG. Archibald, 431 Robie Street, Truro, N. S.
J. M. Atkinson, 6 Pine Street, Dartmouth, N. S.
J. G. Baillie, R. R. 4, Tatamagouche, N. S.
R. T. Ballam, 6535 Summit Street, Halifax, N. S.
J. M. Batty, P. O. Box 318, Bedford, N. S.
S. A. Bishop, Wolfville, R. R. 2, N. S.
S. E. Boudreau, R. R. 1, Church Point, N. S.
Miss D. M. Breen, MacQuarrie Ave., Westville, N. S.
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